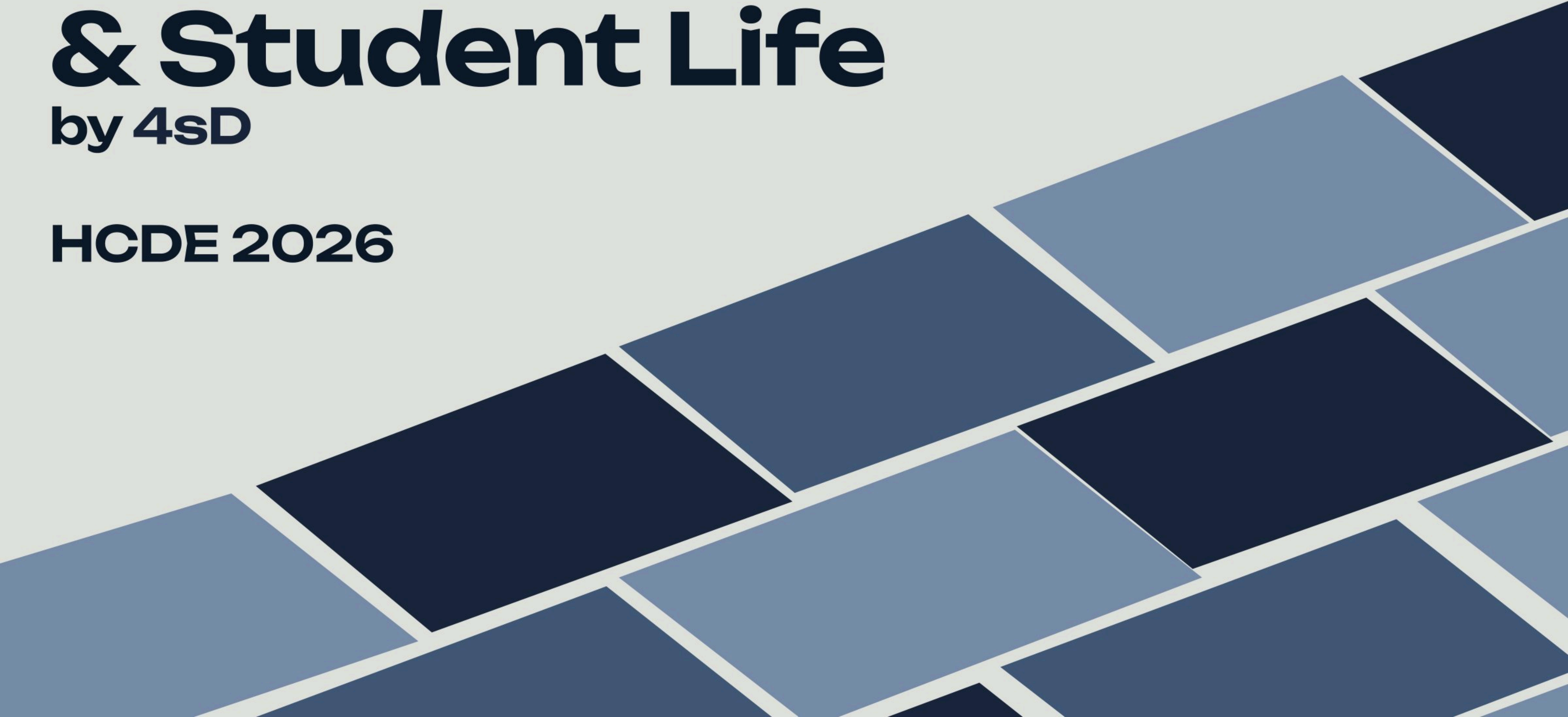


Weather & Student Life

by 4sD

HCDE 2026

Rafael Ramos Turnes
Nicholas Elton
Ozan Kardes
Luka Hinton



“Redesigning Everyday Life on Campus”



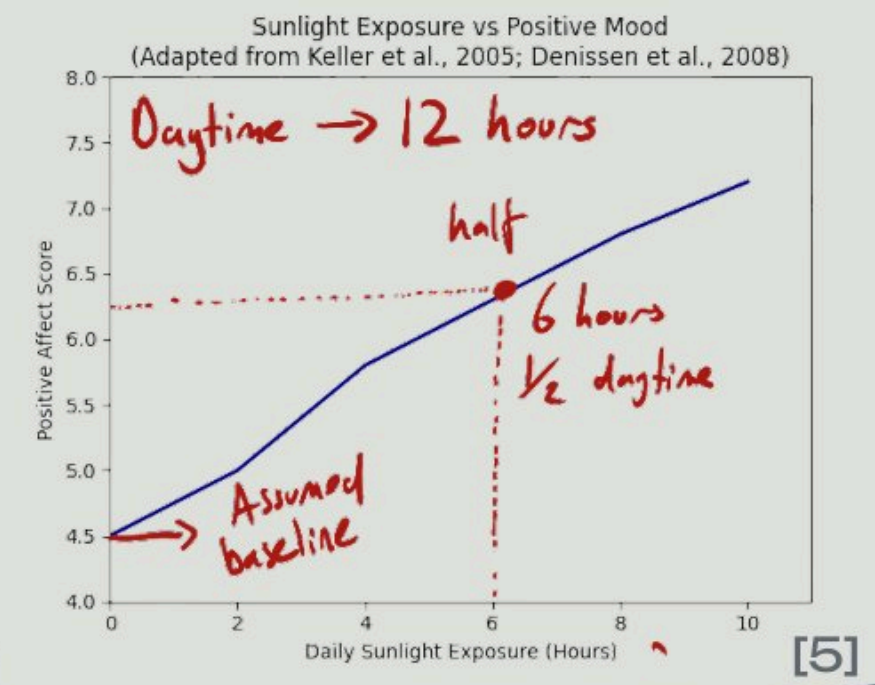
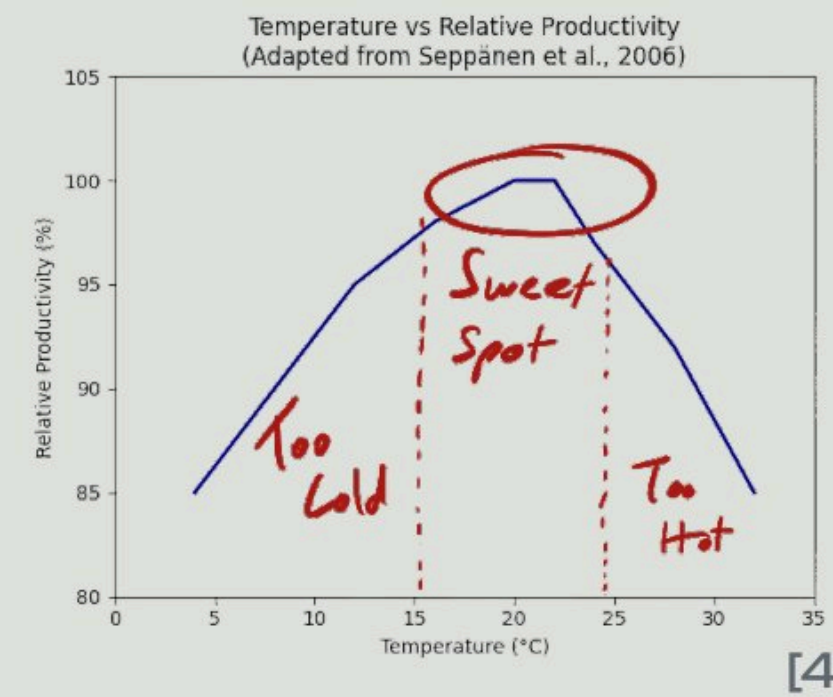
Grounding Secondary Research

Work performance can decrease **2%** for every 1 °C above 25 °C. [4]

Productivity peaks at roughly **26°C** for women and 22°C for men. [4]



Campus spaces are **actively used** in **good weather** but quickly become **underutilised** during **rain** or poor conditions.



Topic	Target Users	Key Findings	Research
Unpredictable weather frequently disrupts students' daily movement and routines across campus	Imperial students moving between lectures and campus spaces.	Students rarely prepare for weather, carrying umbrellas or jackets seem inconvenient	Weather diaries, student surveys, and campus observations revealed how weather shapes daily movement and use of outdoor spaces.

Context

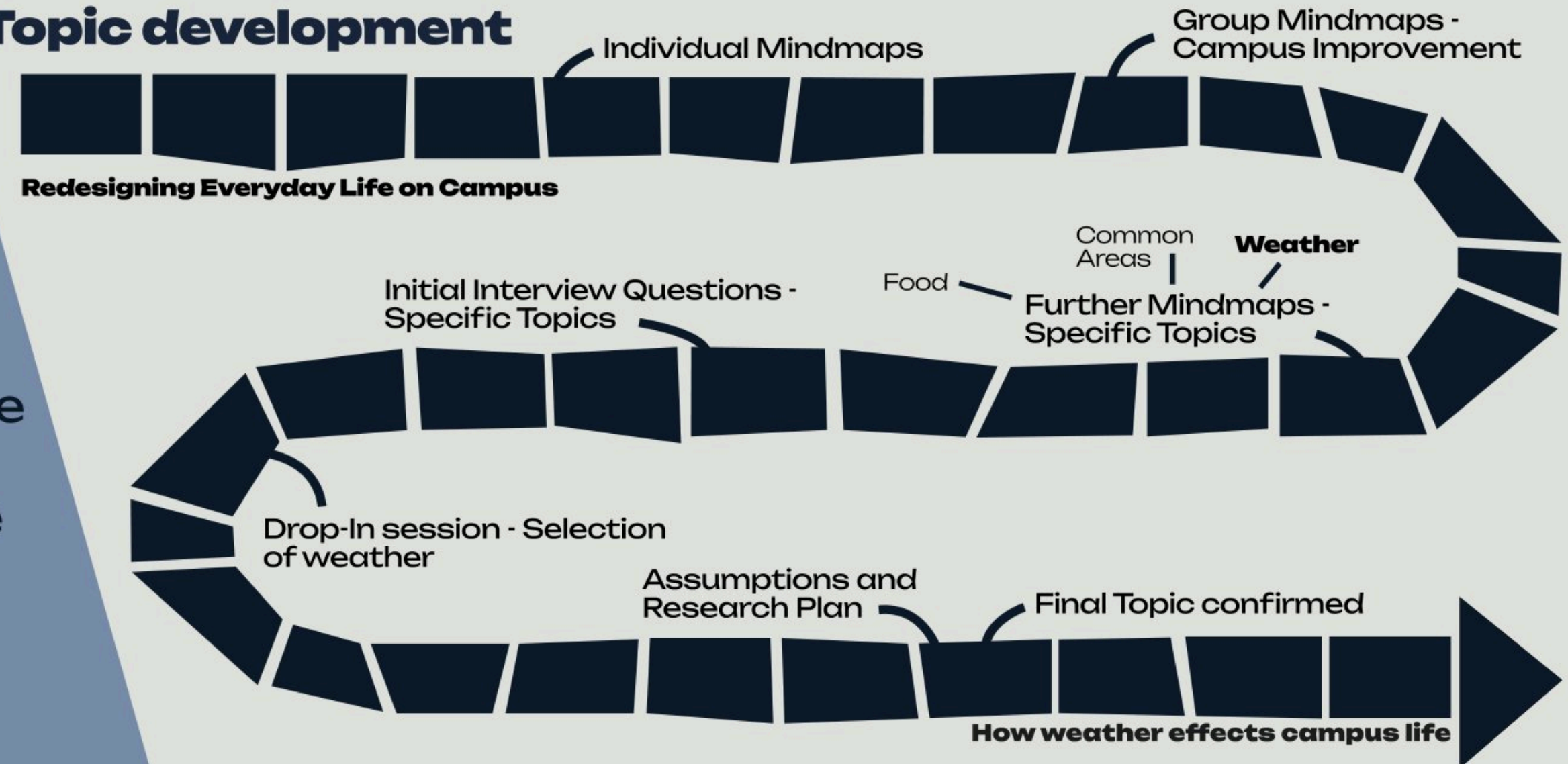
London experiences an average of rainy days per year **109** [2]
20,000+ Students are enrolled at campus-intensive degrees at Imperial. [3]



The Problem: How weather effects campus life

- Imperial students transition outdoors between buildings several times daily.
- Unpredictable rain, wind, and seasonal temperature shifts create repeated exposure to discomfort.
- Weather conditions influence emotions, time efficiency, and social interaction.
- Current campus infrastructure does not respond to environmental variability.

Topic development



WHO?

- Students
- Staff
- Commuters
- Visitors

WHERE?

- Campus
- Accommodation
- Walkways
- Lecture Theatres
- Queen's Lawn

WHAT?

- Unpredictable Weather
- Commuting to campus
- Socialising
- Mental Health
- Productivity

WHY?

- Weather is unavoidable and affects all campus users.

WHEN?

- Lecture Changeovers
- Winter Months
- Summer Months
- Study time
- Mornings
- Evenings

HOW?

- Shown on Ideation pages

Assumptions

- Poor weather discourages outdoor socialisation
- Students are unprepared for sudden weather changes
- Most students do not use the forecast or plan ahead
- Indoor study areas are overcrowded, particularly when outdoor study isn't practical because of the weather
- The UK weather can quickly change
- People don't enjoy being too hot/cold/wet or when it is very windy
- The temperature indoors is inconsistent and often too hot

Research Plan

Briefing

Pg 1-3

Data Collection

Pg 5-8

Analysis

Pg 9-12

Ideation

Pg 13-17

The target for these 4 weeks: choose our **area of focus**, come up with **a layout/plan for the the report**, creating **a plan to collect primary research**, as well as making a sensitising collage and setting the figma up.

Following the chosen area of focus, we set out to collect insights and data using: a **Survey, Weather Diaries, Interviews and Secondary Research**.

In the analysis, we begun with the raw data collected from the previous step. We then grouped the data using an **affinity diagram** into themes and issues, helping generate **insights and personas**. Next, we used those insights to generate the **How Might We** questions, **themes** and the **opportunities** that arise from those.



Double Diamond Ideation Process

Initial Ideation
Evaluation
Further Ideation and Prototyping
Evaluation
Final Ideas

Final Ideas

Initial Ideation

Ideation

Prototyping

Idea Evaluation



HMWs → Ideas

- Brainstorming
- User-centred design
- Initial Sketching
- Ideation
- Group Feedback
- Further Sketching
- 3 Final Concepts

Initial Mindmapping

Briefing

Ethics

Choosing our focus area

Data Collection

Diaries by target user group

Interviews

Quantitive Secondary Research

Talking to random students

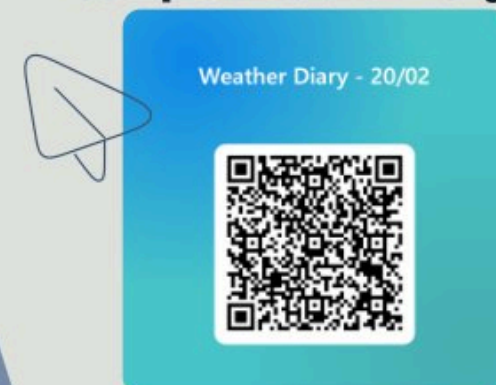
Ethical considerations

- All responses to our survey, and weather diaries were anonymous
- All interview recordings are stored securely and won't be put on any public forum (including our report or other documentation)
- All interviews will be deleted once transcribed
- All quotations used in our submitted works will be anonymous
- No photos or videos were taken of interview participants, only an audio recording which they were made aware of and asked if they were comfortable with being taken
- Any use of AI will be clearly marked and used in accordance with project and Imperial guidelines
- Our final product will carefully consider its social and moral effects to maximise its benefit for all.



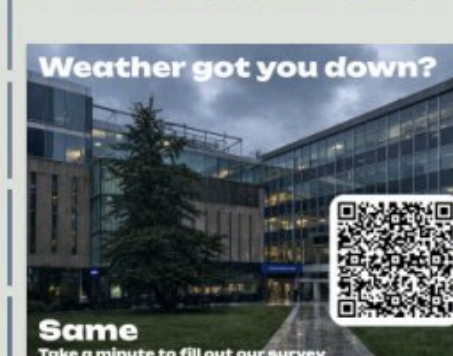
Data Collection Methods

Sample Weather Diary



The sample weather diary was sent out on a WhatsApp group every day. (as shown on Research Findings Slide.) We asked one question: How did the weather affect you today?

Initial Questionnaire



The initial questionnaire was used to gauge initial user experience with the weather, help inform later interview questions and clarify who we could interview in the target user group.

Interview Notes

Transcription was taken, notes made and formed into useful snippets.

The snippets were then analysed and combined with data from other primary research sources (e.g Diaries) and put into themes.

Affinity Map

The empathy map covered what people say, think, feel and do. It also helped inform the insights and behavioral patterns take into the Personas.

Personas

Interview Notes

Generated Insights

Analysis

Research Findings

Journey Map

We then largely consolidated all analysis into themes and insights, allowing us to inform the How Might We questions.

3 HMWs

Lastly, the three How Might We questions were set up using all of the insight and observations above, allowing us to begin ideating with a clear understanding of the problem.

Research Findings

The data was then clustered with individual observations and quotes, helping identify patterns and themes.

Empathy Map

Based on the primary research and observations above, we identified three users, which represent the needs and behaviours of our target user group.

Affinity Mapping

Creating personas

Journey Mapping

Insights & Opportunities

Empathy Mapping

The journey map then further explored the personas, and how it influenced their daily behaviours and schedule.

Further Insights & Opportunities

Research Methods

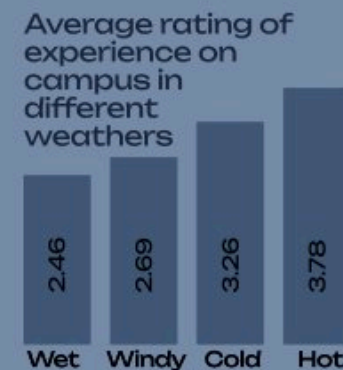
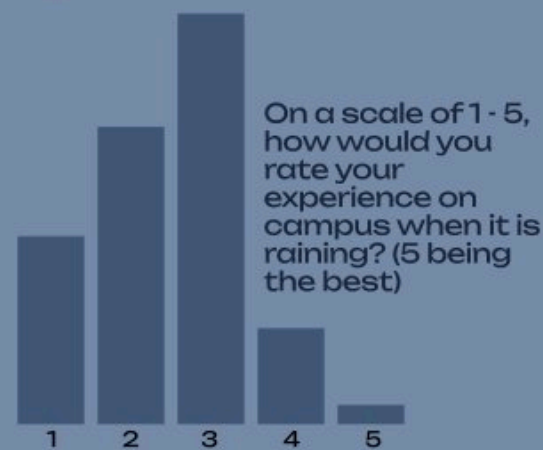
Secondary Research

First we searched for many articles showing links between **the weather and people's mood, productivity, safety and day to day experience.**



Surveys

We surveyed **54 Imperial students** to understand their experience of weather on campus and identify which conditions are most disruptive.



Below are the most common words used in responses



Weather Diaries

Over **two weeks, 15 participants** completed a **daily weather diary**, sharing their day-to-day experiences with campus weather.

Clothing

The weather diaries showed **students struggled** to pick the **correct clothing for varying weather conditions.**

15 responses focused on outfits, highlighting it as a key issue



Responses frequently mentioned the **inconvenience of storing extra layers**, particularly in lecture theatres.

Emotional Impact

Weather strongly influenced students' **mood and social activity.** Participants reported feeling worse during rain and happier on sunny days, while also being **less socially active in poor weather.**



Safety

Even without icy conditions, students sometimes reported **feeling unsafe in certain areas of campus.** Several described **near-miss incidents while walking or cycling**, particularly on wet concrete, metal manhole covers, and during windy conditions.



Interviews

Interviews allowed us to explore the **motivations behind people's daily routines**, learning what experiences have shaped their routines and **weather related behaviour**

We used interviews to explore any interesting stories and experiences which came up.

Commuting

To encourage storytelling in interviews, we often started by asking how students commuted to campus. Responses varied widely, but the most interesting insights came from exploring why they chose those methods.

Weather was a key influence affecting **how students travelled, what they wore, and whether they attended at all.**



Preparation

We sought to learn what steps students took to prepare for their day and the weather.

While many students said that they changed their outfit depending on the weather, the majority admitted they **didn't check the forecast in the morning** to inform this decision making.



Routines

Most interviewees told us about their typical routines on campus: where they spent the most time, where they studied and where they ate lunch; but it was interesting to see how these **changed as the weather varied.**

Many students wanted to spend more time outside when it was sunny and made a distinct effort to be more social in this weather, whilst rain and wind seemed to have the opposite effect, **driving people inside on their own.**

Research Findings

Secondary Research

Why?

To contextualise our primary findings, we examined existing research on behavioural decision-making and weather perception to better understand patterns observed in our interviews and surveys.

Observations

One of our observations was seeing many students stuffing coats under chairs at the beginning of their lectures

Another was that there would be trails/puddles of rainwater and dirt in the steps in lecture halls

Observing the rental bike storage areas, we also noticed a clear trend of more people cycling on sunny and dry days.

Intention-Action Gap

Even when people intend to prepare for conditions like rain, habitual behaviour and convenience often prevent those intentions from becoming actions.

Source: Sheeran (2002), *European Review of Social Psychology*. [7]

Effort minimisation

People tend to choose actions that require the least cognitive or physical effort, favouring convenient decisions over more effortful planning.

Source: Kool et al. (2010), *Decision Making and the Avoidance of Cognitive Demand*, *Journal of Experimental Psychology*. [8]

Key Takeaways

- Weather preparation is often reactive rather than proactive
- Habits and effort minimisation has a strong influence on daily decision-making
- Students rely on quick access tools such as weather apps rather than long-term planning
- Environmental factors like rain and sunlight affect mood and behaviour

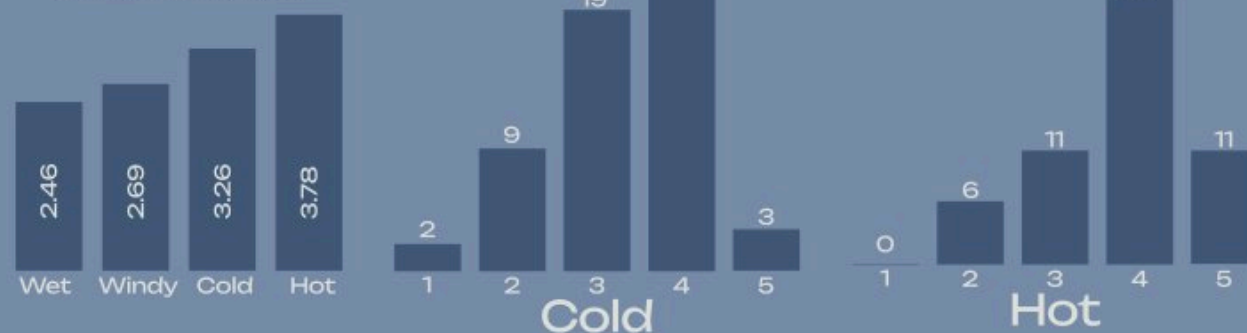
Survey Results

54
RESPONSES

The survey was a useful way to gauge interest in this issue and more specifically which type of weather caused people the most grief on campus.

We were able to generate both quantitative and qualitative data to help us generate useful insights.

Average rating of experience on campus in different weathers



Below are the most common words used in responses



On a scale of 1-5 (5 being the best), how would you rate your experience on campus when it is [weather]?



Umbrella carrying behaviour

Preparation for rain often depends on perceived probability and inconvenience. People are less likely to carry umbrellas unless rain is highly likely, showing a tendency toward reactive rather than proactive behaviour.

Source: Bilgin, B. & Brenner, L. (2013). [9]

Weather App Usage

College students primarily access weather forecast through smartphone apps, often checking short-term forecast such as hourly predictions to support daily decisions.

Source: Phan et al. (2018), *Weather on the Go: Smartphone Weather App Use Among College Students*, *Bulletin of the American Meteorological Society*. [11]

Weather and Mood Effects

A diary study examining daily weather conditions found that factors such as sunlight, temperature, and precipitation can influence people's mood and levels of tiredness.

Source: Denissen et al. (2008), *The Effects of Weather on Daily Mood: A Multilevel Approach*, *Journal of Personality and Social Psychology*. [10]

Weather Salience Bias

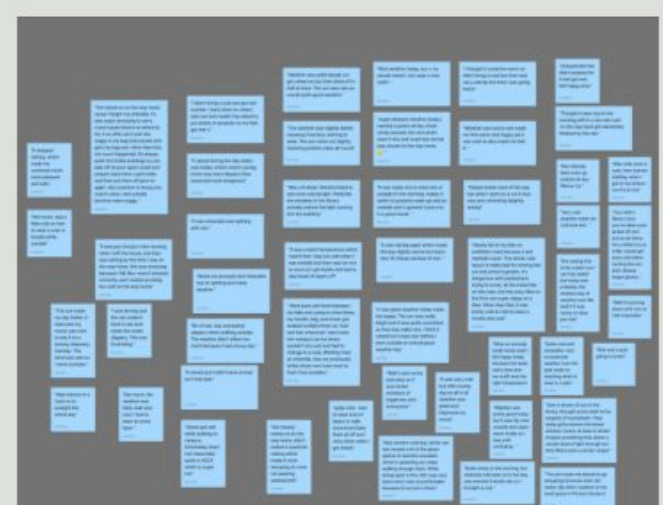
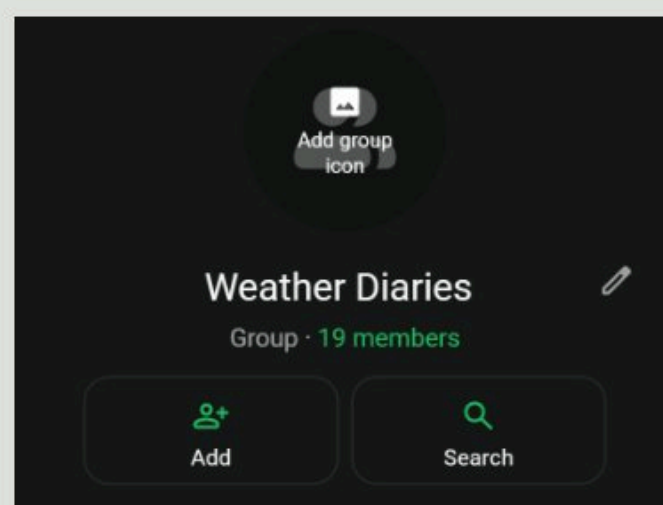
People often underestimate the influence of weather planning daily activities, leading to reactive rather than proactive behaviour.

Source: Kenuinak (2023), *How Weather Affects Student Wellbeing*, *Medium*. [12]

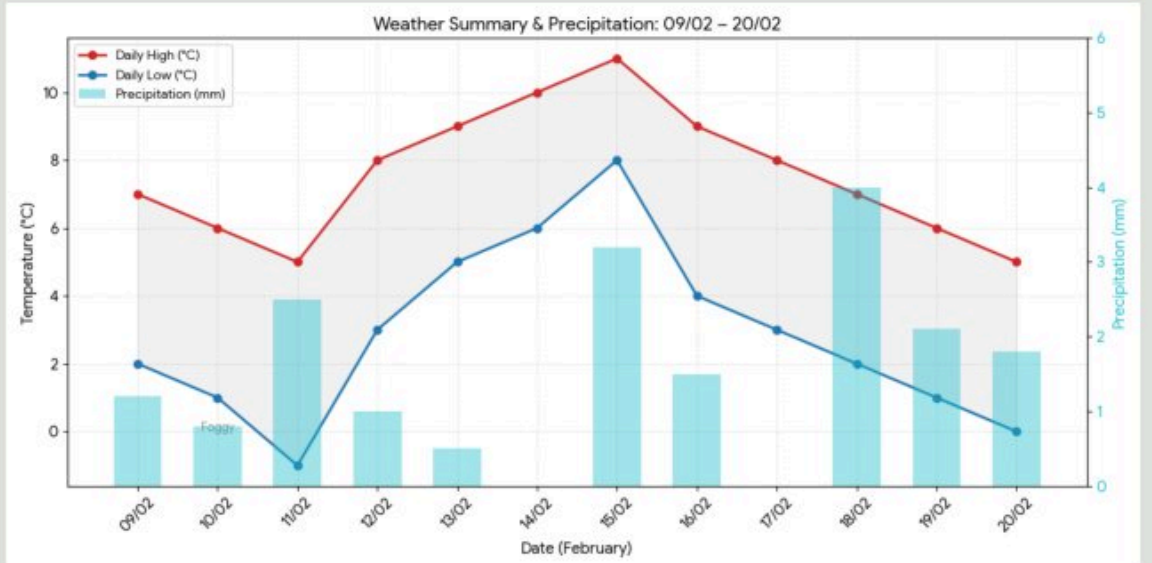
Research Findings

Weather Diaries

We sent a survey on the WhatsApp group chat everyday and recorded all responses, along with that days weather report on an Excel spreadsheet.



Date	Temp	Wind	Cloud	Humid	Pressure	Visibility	Notes
09/02	10.0	15.0	10.0	65.0	1013.0	10.0	Clear, sunny, mild.
10/02	12.0	20.0	15.0	70.0	1012.0	10.0	Breezy, clear, mild.
11/02	8.0	10.0	5.0	60.0	1014.0	10.0	Clear, sunny, mild.
12/02	15.0	25.0	20.0	75.0	1011.0	10.0	Hot, sunny, mild.
13/02	18.0	30.0	25.0	80.0	1010.0	10.0	Very hot, sunny, mild.
14/02	20.0	35.0	30.0	85.0	1009.0	10.0	Extremely hot, sunny, mild.
15/02	22.0	40.0	35.0	90.0	1008.0	10.0	Very hot, sunny, mild.
16/02	20.0	35.0	30.0	85.0	1009.0	10.0	Hot, sunny, mild.
17/02	18.0	30.0	25.0	80.0	1010.0	10.0	Hot, sunny, mild.
18/02	15.0	25.0	20.0	75.0	1011.0	10.0	Mild, sunny, mild.
19/02	12.0	20.0	15.0	70.0	1012.0	10.0	Mild, sunny, mild.
20/02	10.0	15.0	10.0	65.0	1013.0	10.0	Mild, sunny, mild.



For larger image see appendices

“Was cold, wore a coat, then started melting when I got to my lecture cos it’s so hot”

“Got rained on on the way home cause i forgot my umbrella. it’s also super annoying to carry round cause there’s no where to dry it

“i didn’t bring a coat and got wet outside.

“It was a weird temperature which meant that I was too cold when I was outside but then way too hot as soon as I got inside and had to take loads of layers off”

“Nice weather today, sun + no clouds meant i can wear a nice outfit.”

Clothing + Preparation

“Quite windy in the morning, but relatively mild later on in the day, was worried it would rain so i brought a coat”

“i thought it would be warm so didn’t bring a coat but then was very cold by the time i was going home”

“Quite cold and miserable, very inconsistent weather over the past week so deciding what to wear is a pain”

Many diary entries described issues with choosing their outfits for the day and how getting it wrong impacted the rest of their day. Participants also talked about the inconveniences on campus even when they did dress correctly.

“What an actually really lovely day!! i felt happy today because the skies were clear and my outfit was the right temperature

“It was really nice to have lots of sunlight in the morning, makes it earlier to properly wake up and be outside and in general it puts me in a good mood.”

“It was very cold but still a sunny day so all in all weather was great and improved my mood”

Mood + Emotions

“Was another cold day, all the rain has caused a lot of the green spaces to become unusable which is upsetting as I enjoy walking through them.

“Bro I literally didnt even go outside all day. Wanna cry”

“The sun made my day better, it improved my mood

The sun came out slightly meaning positive vibes all round!”

An interesting output of the diaries was how greatly people’s mood and outlook on their day was affected by the weather. On rainy days you could tell students were less happy even through their short diary entries.

“Got heavily rained on on the way home, didn’t realise it would be raining

“Nearly fell off my bike on exhibition road because a wet manhole cover.

Safety

“Thought it was nice in the morning, left in a non rain coat on the way back got absolutely finished by the rain”

Many students actually felt unsafe on campus in bad weather.

Interviews

Outdoor Spaces

"when i see weather like this (sunny), i'm like, why am i inside?"

"i really struggle to find places to enjoy the good weather whilst also being productive"

- Students want to spend more time socialising and working outdoors, but find it impractical

Preparation

"even if it's raining, i sometimes won't take a jacket because they're annoying"

"I don't really trust the forecast, i bring a coat anyway."

"I'm triple socking everywhere and the bottom layer of socks gets wet"

"I never check the forecast, i just look out the window"

- Students sometimes sacrifice comfort for convenience by leaving layers behind
- Students often don't use the forecast, so they're frequently caught out by wet weather

- Students find the sun and warm weather comforting, while bad weather generally dampens moods and decreases motivation to work

- If students get wet on campus they struggle to dry off and can be angered and/or saddened by this

- The temperature indoors is often too hot, making working difficult

Mood & productivity

"if you get wet, it's just miserable"

"I had to leave the library because it was too hot by a radiator and there weren't any other seats"

"when i see it like that (sunny), i'm like, wow, it's a gorgeous day"

"[when] the skies are blue, that helps a lot with mood"

"I think bad weather makes me more inclined to get out of bed later and spend more time in my room"

Why do interviews?

- Interviews allow us to get individual emotional motivations, stories and behaviours while actively adapting questions to get the fullest understanding of student routines and behaviours.

Key takeaways

- Students want to be prepared for the weather but often don't help themselves by not checking forecasts or not bringing the correct clothing even when they check due to it inconveniencing them later in the day
- The weather has significant effects on students' wellbeing, mood, and productivity, sometimes preventing social and academic activity

Socialising

"When the weather's nice, i like to just go for a walk"

"When it's sunny I'll happily stay out after lectures. When it's grey, I just go straight home."

"when the weather's bad, I'm dreading it (playing sports outside) all day"

"bad weather limits options (of things to do), ... i think that drives why i'm less sociable"

- Students enjoy spending time outside but only really in nice weather

- Socialising is easier and more enjoyable in good weather

- Students find sport less enjoyable in poor weather

- Students dislike carrying stuff around if it can be avoided.

- Students avoid moving around outdoors in poor weather and actively seek out good weather

Moving around campus

"carrying extra layers when its cold or raining is kinda annoying, especially when you get [to lectures]"

"I sometimes adapt my day to spend more time indoors or move around less when its wet or really cold, equally the opposite for when it's sunny"

Comfort

- Students find wet clothes annoying and uncomfortable to carry and wear

- Both men and women often find the temperature too hot indoors

- Changing facilities and clothing storage/drying areas are lacking

"wet clothes can be disgusting and annoying to put back on at the end of a lecture"

"I'm always boiling, even though women generally have slower metabolisms its still too hot"

"I once wore my football thermals to uni because I knew I would need them in the evening, but I was boiling all day and there was nowhere for me to take them off"

"wet and warm, that's not a nice combo"

Commuting

- Commuting in bad weather provides a serious physical and mental barrier to socialising and getting to campus

- Students often resort to public transport to avoid walking/cycling in the rain

- Students have to allow more time for travel depending on conditions

"if its raining when I leave my accommodation, i sometimes just go back to my room"

"If it's properly raining, I just don't feel like going in [to campus]."

"if it's spitting [rain] a bit, ..., I'll just take the tube because the Santander bike seats just sit in the rain"

"no one wants to get an umbrella out"

"sometimes i don't come to uni just because the weather is ****"

Affinity Mapping

After conducting interviews and gathering qualitative data, we used affinity mapping to cluster related findings and patterns. Observations were grouped based on similarity, enabling recurring behaviours and relationships to emerge and be synthesised into themes for further analysis.

Surveys

Weather Diaries

Interviews



Clustering survey responses and weather diaries revealed several **recurring themes** in how students experience weather on campus

Key patterns included concerns around **physical safety** during rain or wind, the impact of weather on **mood and motivation**, and the role of campus **infrastructure** in providing comfort.

Many responses also highlighted that **clothing choices** and preparation strongly influence daily comfort, especially when weather changes unexpectedly

Data

Primary research was collected through student surveys and weather diaries, documenting daily experiences and behaviours related to weather

Affinity Diagram

Data was organised using affinity mapping, clustering individual observations, and quotes to identify patterns.

These patterns were organised into themes to generate insights from each theme

Themes

Five key themes emerged from the clustering:

- Safety & Physical Hazards
- Emotional Impact & Mood
- Infrastructure & Shelter
- Comfort & Exposure
- Clothing & Weather Preparation

Insights

Themes were synthesised into user insights using interpretative analysis to reveal underlying needs, behaviours, and most importantly pain points.

These values of the insights what differentiate them from observations

Personas

Insights were then interpreted into personas, representing 3 typical types of student, their behaviours, and needs to guide user centred design decisions.

What did people...

Say:

- Students frequently mention the inconvenience of moving between buildings during rain or strong wind, particularly when lectures are scheduled far apart
- Weather conditions are frequently discussed as affecting daily routines, influencing when students choose to stay on campus or leave early
- Some students express that the forecast is unreliable and/or not worth checking

Think:

- Many students assume the weather will remain consistent throughout the day, leading them to prepare only minimally before leaving home
- Preparing extensively is often viewed as an unnecessary effort or socially undesirable
- Students tend to believe that campus infrastructure should provide sufficient shelter, although interview responses suggest this isn't always true

Feel:

- Students feel frustrated or inconvenienced when unexpected weather disrupts plans, comfort, or mobility
- Poor weather can lead to reduced motivation to spend time on campus
- Pleasant weather creates a more positive mood, increasing willingness to socialise and remain on campus

Do:

- Students check the weather forecast inconsistently, often relying on quick assumptions rather than deliberate planning
- When conditions change unexpectedly, they adapt reactively by adjusting routes and/or clothing
- They seek covered walkways, indoor spaces, or shortcuts between buildings to minimise exposure to rain or wind

Behaviour Patterns

Empathy mapping highlighted key behavioural patterns:

- Inconsistent weather preparation
- Reactive adaptation to changing conditions
- Mood and productivity influenced by weather
- Reliance on infrastructure and clothing for comfort

These **behavioural patterns** are the **building blocks** of the representative user personas, capturing common student **needs, motivations, and pain points** when navigating weather conditions on campus.

Personas

Based on our primary research and observations, we have identified three key user archetypes that represent the diverse needs and behaviours of the student population.

Brian

Age: 19

About: Brian is a second year Geology student, living at home in St Albans. His daily commute is around an hour each way.



Motivations:

Efficiency - Brian wants to make the most of every day and the time he has

Punctuality - Despite his lengthy commute, Brian wants to be on time to all of his lectures

Socialising - Brian has an active social life and wants to spend times with his friends at home and at university

Pain Points:

Commute - Brian's commute takes a lot of his time and train delays have potential to make this even worse

Weather Differences - The weather on campus can be very different to the weather at home possibly causing him issues while commuting and on campus

Distractions - Brian has a lot of work to do but sometimes struggles to focus

Lucy

Age: 20

About: Lucy is a third year Computing student, living in Hammersmith. She cycles to university, which takes around 20 minutes



Motivations:

Safety - Lucy is a confident cyclist, but the London roads are busy and can be dangerous

Productivity - Lucy likes to stay on top of all of her assignments and get her work done while at university

Comfort - Lucy's safe space is her house, where she likes to relax in front of the TV in the evenings

Pain Points:

Commute - Lucy gets quite hot while cycling, but also wants to stay dry and protected from the weather

Study Spaces - Lucy sometimes struggles to find rooms or outdoor spaces for study on campus

Socialising - Once she has settled down for the evening she often doesn't feel like being social again, but feels she doesn't see her friends enough

Matt

Age: 18

About: Matt is a first year Mechanical Engineering student, living in student accommodation in South Kensington. His commute is a simple 5 minute walk to campus.



Motivations:

Studies - Matt's course is his main priority, so he makes sure to balance this with his other activities

Socialising - Matt is a social butterfly who loves to stay busy and see friends often

Exploration - Matt has just moved to London and wants to visit new parts of the city

Pain Points:

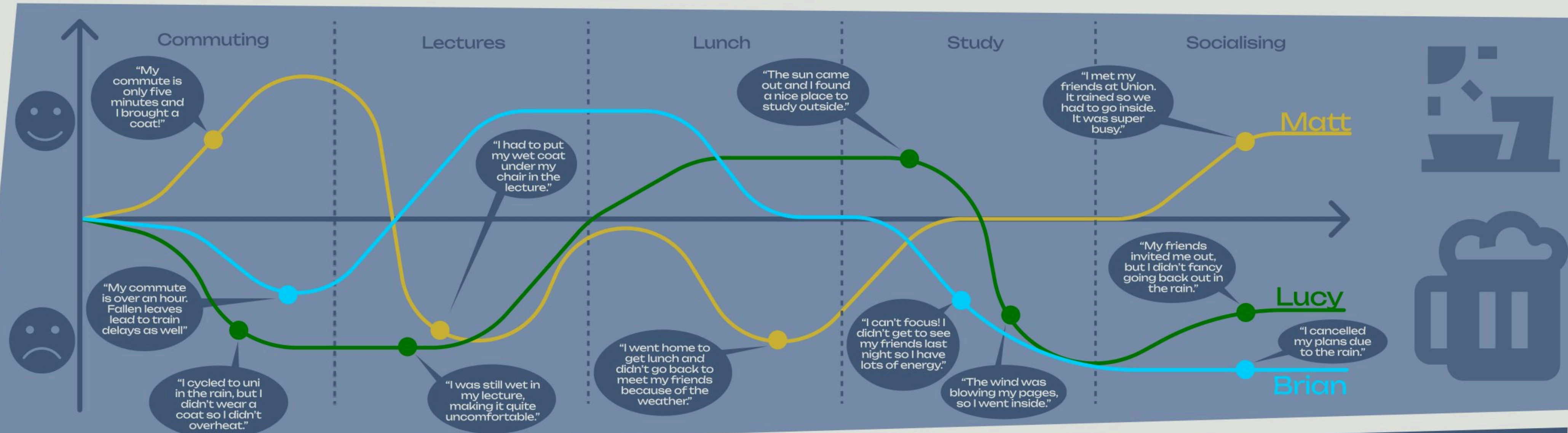
Commute - Although Matt's commute is only 5 minutes, he can still get quite wet, so he must bring a coat

Social Spaces - Matt likes to eat lunch with his friends and socialise on campus in the evening, but it can be too busy

Safety - Matt is wary of his surroundings, especially when it gets dark. He is hesitant to go to unknown places, especially when it is raining or very cold.

Journey Mapping

Journey maps are a great way to visualise user's daily experiences, particularly their pain points and moments of joy.



Brian

I am getting tired of just studying and not seeing my friends

Lucy

I never seem to get my outfit right for the weather

Matt

I wish I could spend more time outside hanging out with friends or studying

Insights & Opportunities

HMW's generated iteratively from insights, themes, and secondary research

INSIGHTS

1. When the weather is changeable, **students don't make the effort to move outside**, due to wet weather restricting their movement, availability of outdoor spaces, and the potential of being caught out by bad weather returning
2. Long periods of bad weather **restrict student's social life**, keeping them in their rooms, leading to boredom / pent-up energy and **increasing chances of distraction**
3. People say they want to be prepared for the weather, but **don't check the forecast** in advance of leaving
4. Despite checking the forecast, **students choose not to wear suitable clothing** due to it inconveniencing them later in the day

THEMES

Generated from our insights

1. **Getting around campus**
2. **Commuting to campus**
3. **Daily weather preparation**
4. **Socialising**
5. **Productivity**
6. **Outdoor spaces**



HMW

1. **How might we prevent disruption caused by unpredictable weather to reduce the impact on students' routines?**
2. **How might we prevent weather from limiting students' social life to improve their wellbeing?**
3. **How might we increase the usability of outdoor spaces when the weather is good to improve productivity?**

Grounding insights in secondary research

1 & 3 & 4 Effort minimisation

People tend to choose actions that require the least cognitive or physical effort, favouring convenient decisions over more effortful planning.

2. Weather Salience Bias

People often underestimate the influence of weather when planning daily activities, leading to reactive rather than proactive behaviour, causing reduced activity and more time spent stuck indoors alone.

2. Weather and Mood Effects

A diary study examining daily weather conditions found that factors such as sunlight, temperature, and precipitation can influence people's mood and levels of tiredness.

3 & 4. Intention-Action Gap

Even when people intend to prepare for conditions like rain, habitual behaviour and convenience often prevent those intentions from becoming actions.

See research findings slides for study details

Initial Ideation

Design Guide Specification

Shareholders/Users



Primary

- Imperial students moving between buildings
- Commuting students travelling to campus in varying weather
- Students studying or socialising in outdoor spaces

Secondary

- Campus facilities and staff responsible for infrastructure
- Student Union and campus services managing communal spaces
- Visitors and staff who also navigate campus environments

Needs

- Comfort when moving around campus
- Reduced disruption to daily routines
- Opportunities to socialise and work outdoors when conditions allow

1. Intuitive - Students should be able to quickly understand how our solution works / helps them



2. Integrate seamlessly - Students' shouldn't be forced to change their routines



3. Value for money - So it can be used by students on a budget or implemented by the university



4. Weather resistant - Solution should withstand different weather conditions

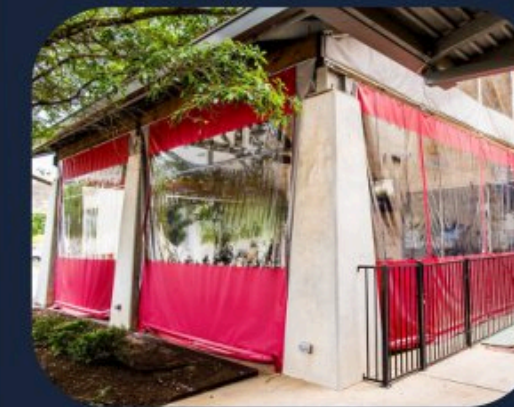
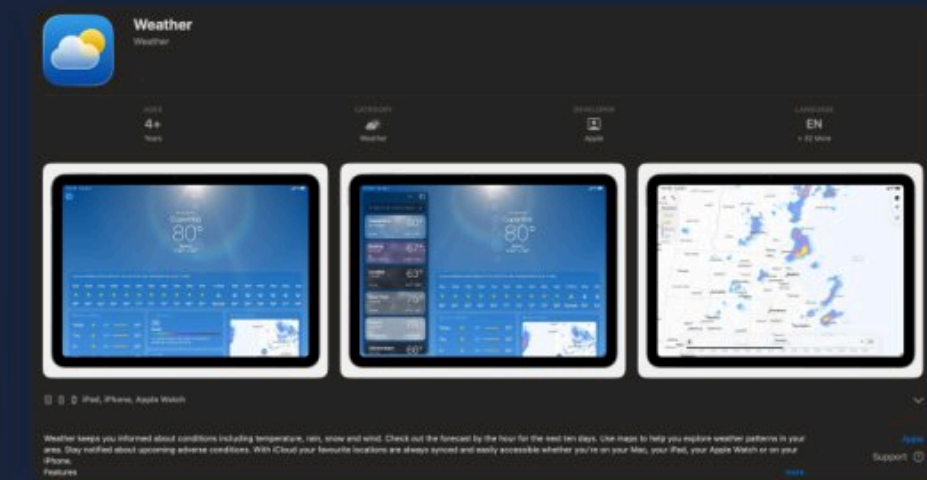


Design Statement

Design a solution that achieves one or multiple of the following goals:

1. Improve students' experience navigating on and to campus in changing weather conditions.
2. Reduce disruption to daily routines, improve comfort and productivity.
3. Enable students to make better use of outdoor campus spaces.

Existing Solutions



3 example solutions already deployed to mitigate the effects of weather:

1. The weather app (e.g Apple Weather)
2. Umbrella Drier (Shown above)
3. Patio covering (e.g Outside Union Bar)

1. The weather app allows for users to check the **predicted weather conditions** up to a week in advance. This allows students to **pack and dress appropriately** for suitable

conditions. The app is limited by the fact that **users have to open and check it everyday**, something that our **interviews showed isn't common**.

2. The umbrella drier is a simple solution to a **niche problem**. When it rains outside and umbrellas are used while commuting on campus, an umbrella drier can be used to **dry the remaining water off the umbrella**, therefore the students can **easily pack the umbrella back up or store it** without having to worry about the water getting everywhere. This is a limited solution to the wider problem of the weather.

3. The patio cover allows for students to **sit/enjoy outdoor areas** even in wet weather conditions, **preventing overcrowding indoors and allowing socialisation**. The limitation of this solution is they are **fixed in one place**, and don't help students enjoy the rest of outdoor spaces.

Initial Concepts

50+
Ideas

Initial Idea Evaluation

Concept	Feasibility	Innovation	Cost	Integration	Weather Resistance	Desirability	Weighted Total /500	Name
1. Weather app with AI integration	4.25	3.25	4.25	4.25	4.5	3.75	390	Nic
2. Customised weather app - work schedules	4.5	3.25	4.5	3.75	4.75	3.5	388.75	Nic
3. Temperature controls in lectures (voting system) + windows	3	4.25	3.5	3.75	4.25	3.5	368.75	Luka
4. Forecast clothing suggester	4.25	3	4.25	4	4.25	3.25	366.25	Rafi
5. Weather checker to encourage socialising	4.25	2.75	4.25	3.5	4.25	3.5	361.25	Rafi
6. Wardrobe add-on -> clothing suggestions	3.75	3	3.75	4	3.75	3.75	358.75	Nic
7. Borrowable "desks" for socialising and working outdoors on grass	3.25	3.25	2.75	4	3.25	4.5	358.75	Luka
8. Lint roller style machine for water	2.5	4.5	2.75	3	3.75	3.75	351.25	Ozan
9. Weather / routine aware scheduling planning & calendar	4	3	4	3.75	4.25	3	350	Ozan
10. Campus map + social updates	4	3	4.25	3.75	4.5	2.75	348.75	Nic
11. Cooped up app	4.5	2.25	4	4	4.5	3	346.25	Rafi
12. Directions around campus using only indoor spaces	3.75	2.75	4.25	3.25	4.25	3.25	342.5	Luka
13. Weather alerts	4.25	1.75	4.5	4.5	4.75	3	341.25	Nic
14. Water bottle clothes dryer	2.75	4.25	2.5	3.75	3	3.5	341.25	Rafi
15. Outdoor spaces app (sun exposure, availability share with friends)	3.75	3	4	4	4.25	2.75	341.25	Luka
16. Smart campus weather display	4.25	3.25	2.75	3.75	3.75	2.75	337.5	Nic
17. Liquid cooled lecture seats	2.5	4	1.75	4	3.25	3.75	333.75	Rafi
18. Umbrella rental	3.75	3	3	3.5	3	3.5	332.5	Nic
19. Weather integrated wardrobe	3.5	2.75	3.5	3.75	4	3.25	332.5	Luka
20. Keycard activated umbrella "rental"	3.75	3	3	3.5	3	3.5	332.5	Luka
21. Anti wet shoes floor tiles	3	3.75	2.25	4	3.25	3.25	330	Rafi
22. Wet bench Protector	5	1.25	4.25	4	3.25	3.25	327.5	Rafi
23. Umbrella stations	3.5	2.75	2.75	3.25	3.5	3.75	327.5	Ozan
24. Rapid Shoe Dryer	3.25	2.75	3	3.5	3.75	3.5	323.75	Rafi
25. Rain and wind protection on picnic tables	3.25	3	2.25	3.75	3	3.75	323.75	Luka

All four
of us
graded
all 55
ideas

Average
scores
for each
point
taken

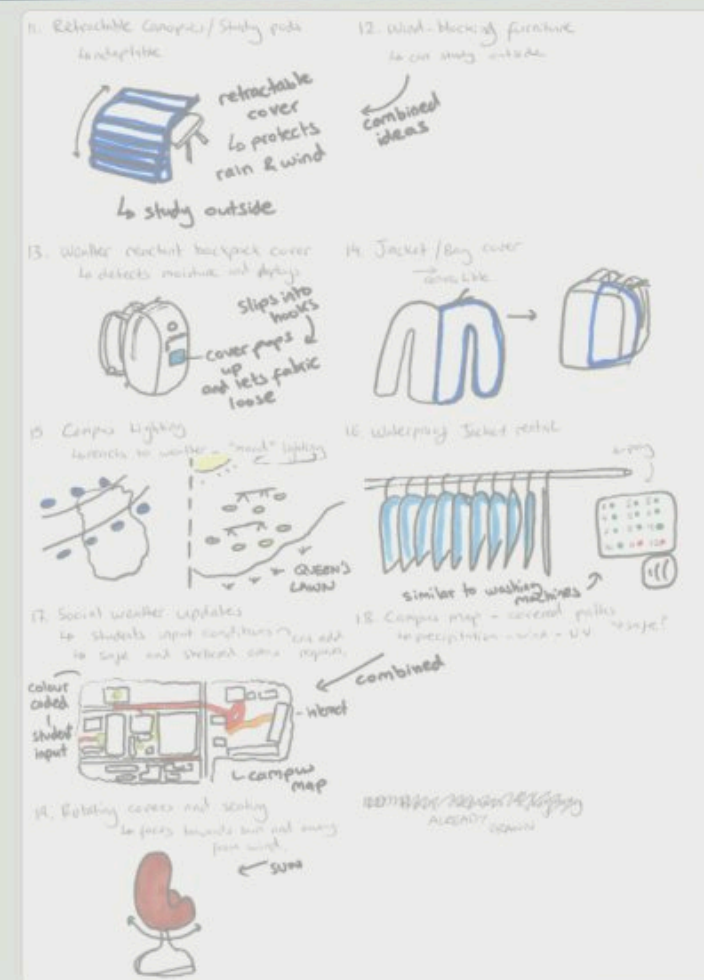
Grade
weighting
applied

Top 25 ideas
evaluated by the
team to form top 10

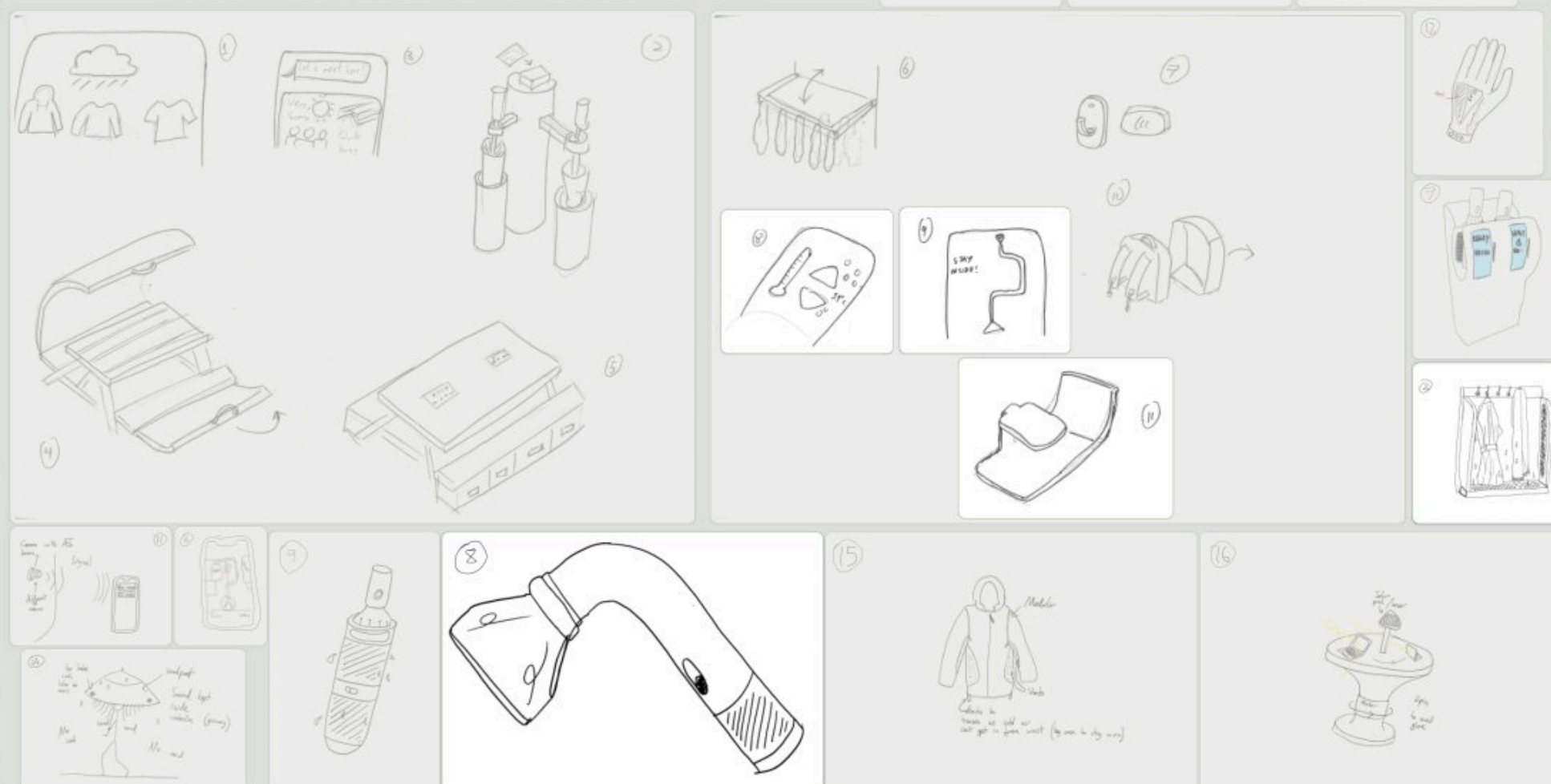
- Feasibility - 20%
- Innovation - 25%
- Cost - 10%
- Integration - 10%
- Resistance - 10%
- Desirability - 25%

1. Recommended clothing weather app - optional link to digital wardrobe
2. Temperature control in lectures
3. Borrowable outdoor desks
4. Lint roller style clothes drying machine
5. Anti wet shoes floor tiles
6. Umbrella rental
7. Cooped up - Outdoor socialising and productivity app
8. Indoor paths app
9. Water bottle (size) clothes dryer
10. Rapid upper body clothing dryer - derived from rapid shoe dryer and clothes racks

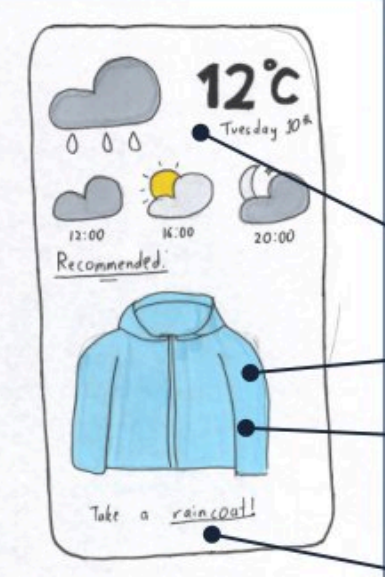
All ideas were generated individually so some similar ideas were combined to form stronger concepts such as ideas 1, 2, and 6.



These ideas were generated by thinking of solutions to our HMW questions while considering our target users and design guidance specification

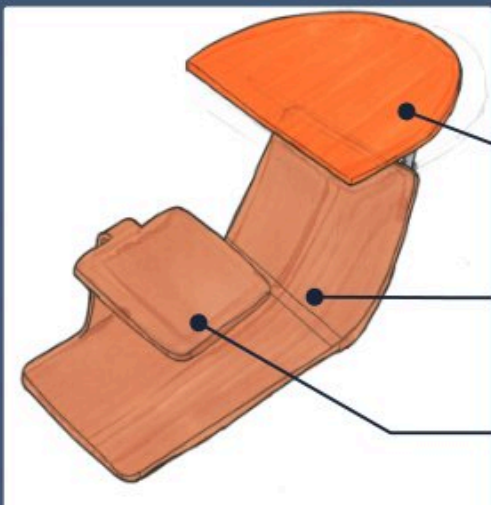


Selected Concepts



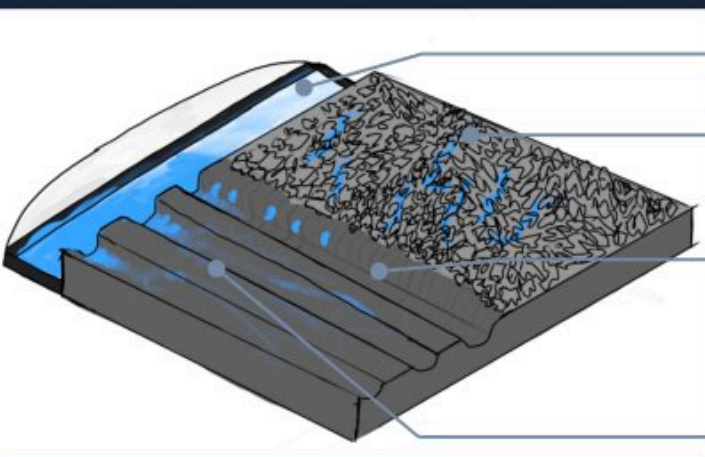
1. Weather Integrated Wardrobe App

- Live weather and forecast
- Suggested clothing
- User's clothes can be uploaded
- Preparation suggestion and notification



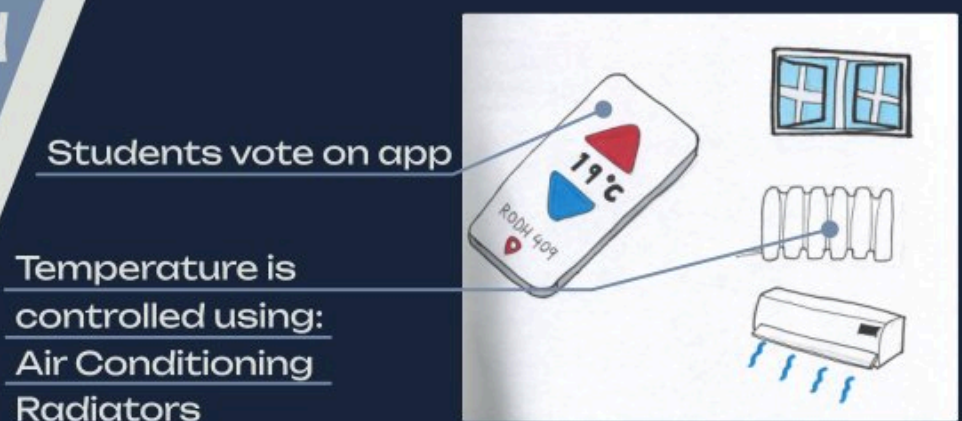
3. Outdoor Desks

- Adjustable Canopy
- Curved Seat with Backrest
- Built-in Desk



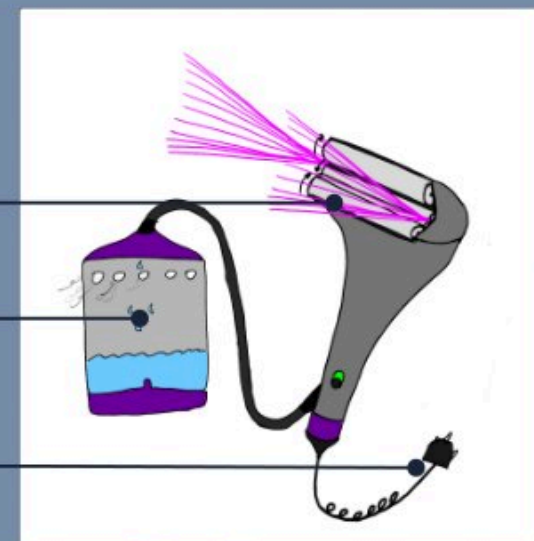
5. Dry Feet Tiles

- Water Collection
- Gravel
- Hydrophobic Coating
- Drainage Channels



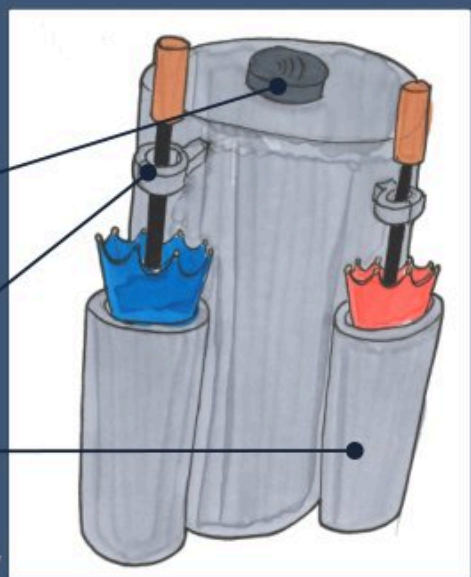
2. Voted Temperature Control

- Students vote on app
- Temperature is controlled using:
 - Air Conditioning
 - Radiators
 - Windows



4. Water Extraction Roller

- Fabric Friendly Rollers
- Water Collection
- Mains Powered



6. Umbrella Borrow

- Keycard / Contactless access
- Releasing clamp
- Umbrella bins (with drainage)

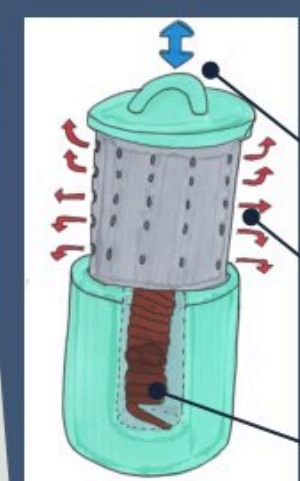
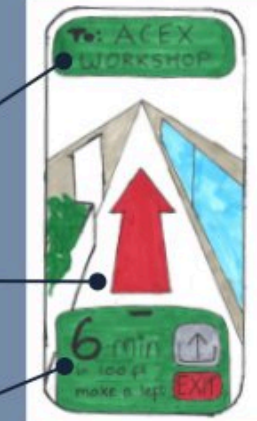


7. Cooped Up

- Forecast
- Outdoor Study Suggestions
- Social Plans & Suggestions

8. Indoor Routes

- Easy to understand UI
- Stay out of the rain
- AR Directions



9. Compact Clothes Dryer

- Retractable Dryer
- Hot Air from Fans
- Heating Coil



10. Rapid Clothes Dryer

- Clothes placed over
- Air blown out of mannequin
- Mains powered

User Feedback

- Concept 1 → "This could be useful, but I think I would ignore it if it didn't factor in **looking stylish**"
- Concept 2 → "I think this could get out of hand quite quickly if people are messing around, or if they just want different temperatures."
- Concept 3 → "This would be great, but I wouldn't want to carry it far. They look quite **heavy**."
- Concept 4 → "I wouldn't feel confident using it on expensive items of clothing. Stuff like **puffer jackets** and **scarfs**."
- Concept 5 → "Yeah this would be really good. I don't think the **uni** would do it though."
- Concept 6 → "I don't usually bring my umbrella to uni because it's such a pain to carry, so this would be **fab**"
- Concept 7 → "I think it's a nice idea, but I'm not sure I would **message** my friends on a different app than I usually use."
- Concept 8 → "I actually get lost whenever I try and take a new route on campus, so **I would defo use this**."
- Concept 9 → "I guess this could be helpful, but I don't think I'd want to **carry** it around with me all day."
- Concept 10 → "I can see why this could be good, but I don't think I could be bothered to **take my clothes off** and **wait** every time."



Decisions

Having consulted many of our interviewees with our designs, these quotes summarise the feedback we received.

We decided to take ideas 1, 3 and 7 forward.

Final Concepts

From the 10 initial concepts generated in the ideation stage, we used **user feedback and group discussion** to identify the three most promising ideas. These were then **developed further** and **explored through prototypes**.

Cooped Up

The Cooped Up app addresses **insights 1 & 2** by taking advantage of breaks in the weather to **encourage socialising and studying outdoors**

Meant for students on campus or living nearby

Features & human centred reasoning

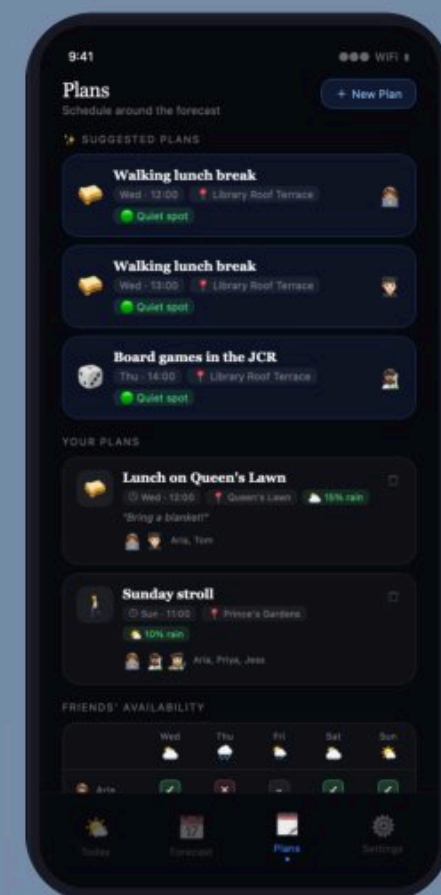
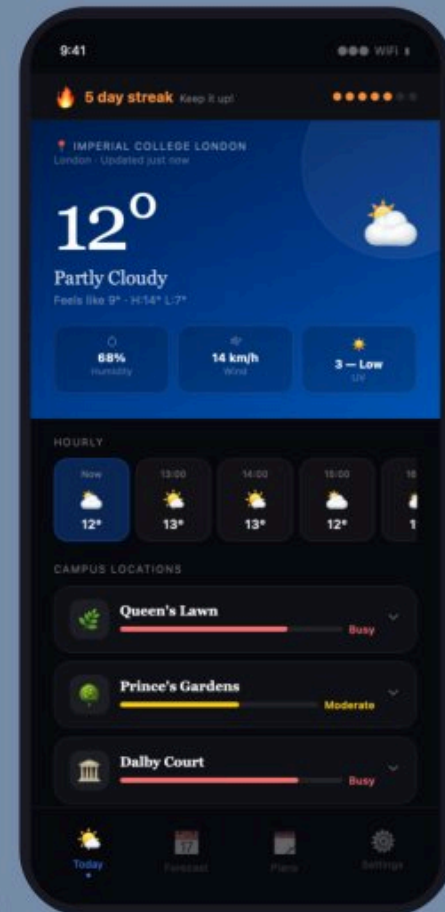
- App suggests meeting time and locations based on weather conditions and shared schedule between friends - creates **social opportunity** that would otherwise be missed - plans can also be made by the users and shared with their friends

- Shows busyness and weather conditions at different locations on campus - helps users to make plans with friends when **they may otherwise stay inside or alone**

- If you've made plans cooped up will warn you of approaching bad weather so you can avoid it - **helps reduce anxiety** around being caught out by unexpected weather changes



Designed for **HMW 2**



Outdoor Desks

These outdoor desks address **insight 1** by encouraging students to **use outdoor spaces for studying** by providing a **comfortable alternative to sitting on the grass**

Meant for students on campus or living nearby

Features

- These desks would be available for use around outdoor spaces such as Queen's Lawn, where **students often sit and relax but don't use to study**



Human Centred Reasoning

- These desks make Imperial's outdoor spaces **more accessible and more desirable to use**, improving **productivity** and getting students outside

Designed for **HMW 3**



Weather Wardrobe

The weather wardrobe app addresses **insight 3 & 4** by suggesting the **most suitable clothing depending on the weather that day**

Mostly meant for students that live further from campus, helping prevent them getting caught out on the way to, from, and around campus

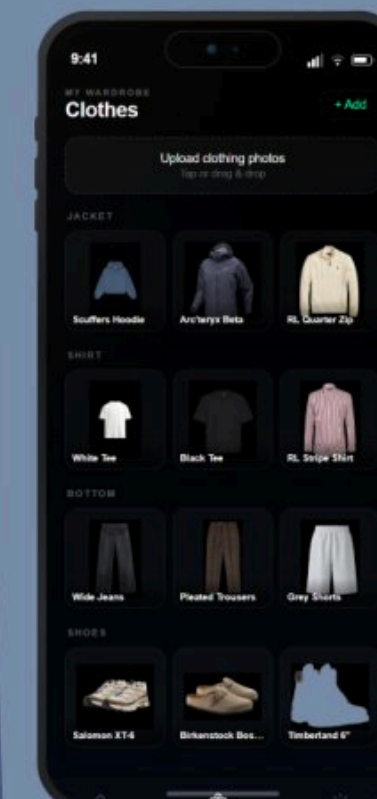
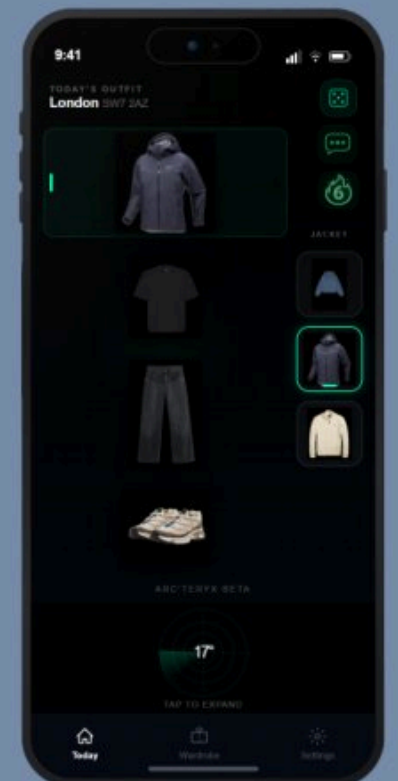
Features & human centred reasoning

- Provides local forecast for wherever you're going (which campus) - Helps students plan when they may commute to help avoid bad weather

- Suggests clothing based on desired style, temperature, wind, precipitation, and humidity - Removes stress from picking outfits while ensuring correct clothing for the day's weather conditions

- The addition of a daily streak encourages students to check the app every morning ensuring - A streak that could unlock in-app features (e.g. dark mode) helps build positive habits

Designed for **HMW 1**



Reflections

Project Findings

- 
1. When the weather is changeable, **students don't make the effort to move outside**
 2. Long periods of bad weather **restrict student's social life**,
 3. People say they want to be prepared for the weather, but **don't check the forecast**
 4. **Students choose not to wear suitable clothing** due to it inconveniencing them later in the day

Challenges & Limitations

- 
1. When we were conducting our research, the **weather was mostly wet** giving participants a more skewed view of weather on campus
 2. Many of our interviewees were first year students and have therefore **not experienced summer at Imperial**
 3. It was tricky not to **introduce biases and ask leading questions** during the interviews, as our own ideas for the project crept in

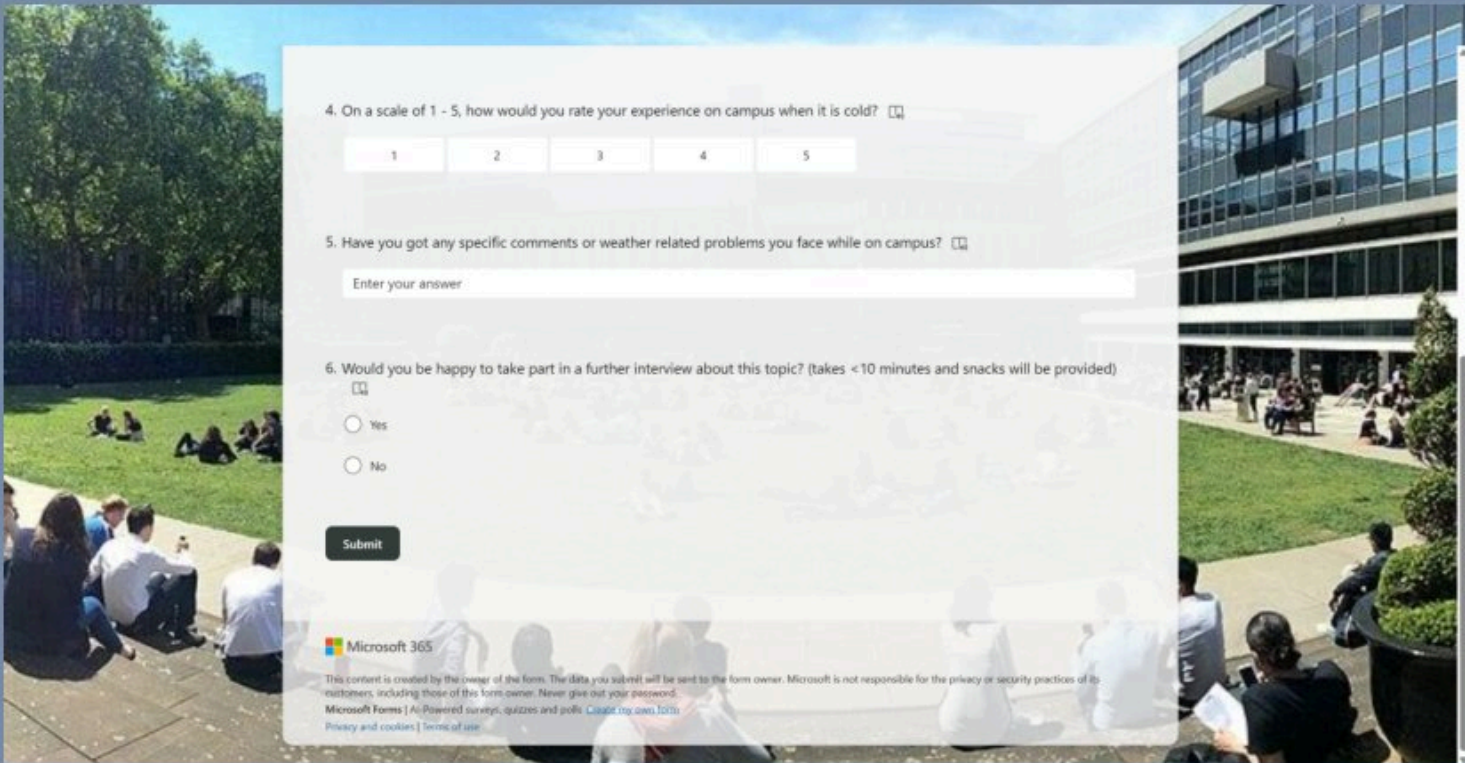
Design Development

- 
1. **Cooped Up** relies on knowing the busyness and other information about different spaces on campus, so we would need to figure out **how we collect and use this data**
 2. The **Outdoor Desks** need to be made **easier to transport**, the back support needs to be **strengthened and propped up to prevent rolling back**, the canopy should be **detachable** to allow for greater adjustability
 3. User feedback on the **Weather Wardrobe** expressed concern about stylishness, so we need to ensure users can **customise the app for their style and clothes**

Next Steps

- 
1. We will organise a **co-design session** with our **target user group**, sharing our current designs and using techniques such as **role play** to develop them further
 2. We will **further prototype** our designs, particularly the **Outdoor Desks**, making a full-scale prototype to test **ergonomics**
 3. Continue to **develop the code** behind our apps, **consulting students** along the way

1- Our Survey previews and questions



4. On a scale of 1 - 5, how would you rate your experience on campus when it is cold? [📊]

1 2 3 4 5

5. Have you got any specific comments or weather related problems you face while on campus? [📝]

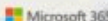
Enter your answer

6. Would you be happy to take part in a further interview about this topic? (takes <10 minutes and snacks will be provided) [📊]

☐ Yes

☐ No

Submit

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2 - Weather diaries

General, 'wrap-up' question

4 - Secondary Research

3 - Our interview structure and questions

Appendix

COOLORS

Portfolio Layout and Requirements
IMPORTANT! READ FIRST:

- Below is the MAXIMUM NO. OF PAGES, but we should be aiming for around the layout below.
- The yellow and green represent MARKSCHEMES.
- At the bottom is the VISUAL QUALITY MARKSCHEME.

Page 1

(in any order) layout

- Module name, year
- CD / Names of team members
- Your project title
- Hero image

Niccy

Page 2

Executive summary (1 page)

Overview summary of report (topic and context, target users, research approach, key findings, insights, HMW question, concepts overview). 100 words maximum

Niccy

Page 3

Context & framing (1 page)

- Project topic & motivation
- Why this is an important design challenge
- User group(s) and context

Niccy

Page 4 - 6

Research Approach (2-3 pages)

- Methods used (why & how) – e.g. interviews, observations, diaries, co-design / generative research
- Research plan & timeline
- Ethical considerations

Niccy

Page 7 - 10

Data Analysis & Findings (3-4 pages)

- Organised research outputs (notes, photos, sketches, collages)
- Thematic coding / affinity diagrams
- Key findings & patterns
- Visualisation of user experience (e.g. journey maps, empathy maps)

Niccy

Page 11 - 12

Insights & Opportunities (2 pages)

- Key insights from research
- 2-3 Personas representing target users
- "How Might We" (HMW) questions for each opportunity
- Connection of insights -> HMW -> concepts

Niccy

Page 13 - 16

Concept Ideation - Ideation process (3-4 pages)

3 final concepts:

- Description
- Target user
- Link to insight
- Visuals (sketches, storyboards, simple mockups)

Evidence of user-centred thinking

Niccy

Page 17

Reflection (1 page)

- What you learned about users
- Challenges & limitations
- Next steps (towards development)

Niccy

Page 18

Appendix

- Interview guides
- Consent forms
- Extra visuals

Niccy

Communication & Visual Quality

- Report structure: intro, method, analysis, insights, concepts
- Clear headings, flow, storytelling
- Integration of visuals: sketches, diagrams, maps, photos
- References & appendix

Niccy

Communication & Visual Quality (10%)

A*: Exceptional clarity, structure, visuals; professional and persuasive.

A: Well-structured, clear, visually effective.

B: Clear/readable; minor layout issues.

C: Inconsistent or cluttered; affects understanding.

D: Weak structure/visuals; hard to follow.

Fail: Disorganised, unclear, confusing.

Niccy

5 - Slides layout

6 - Colour Scheme

0D1B2A	1B263B	
Ink Black	Prussian Blue	
415A77	778DA9	E0E1DD
Dusk Blue	Dusty Denim	Alabaster Grey

8 - Survey

9 - Personas, sketches to final

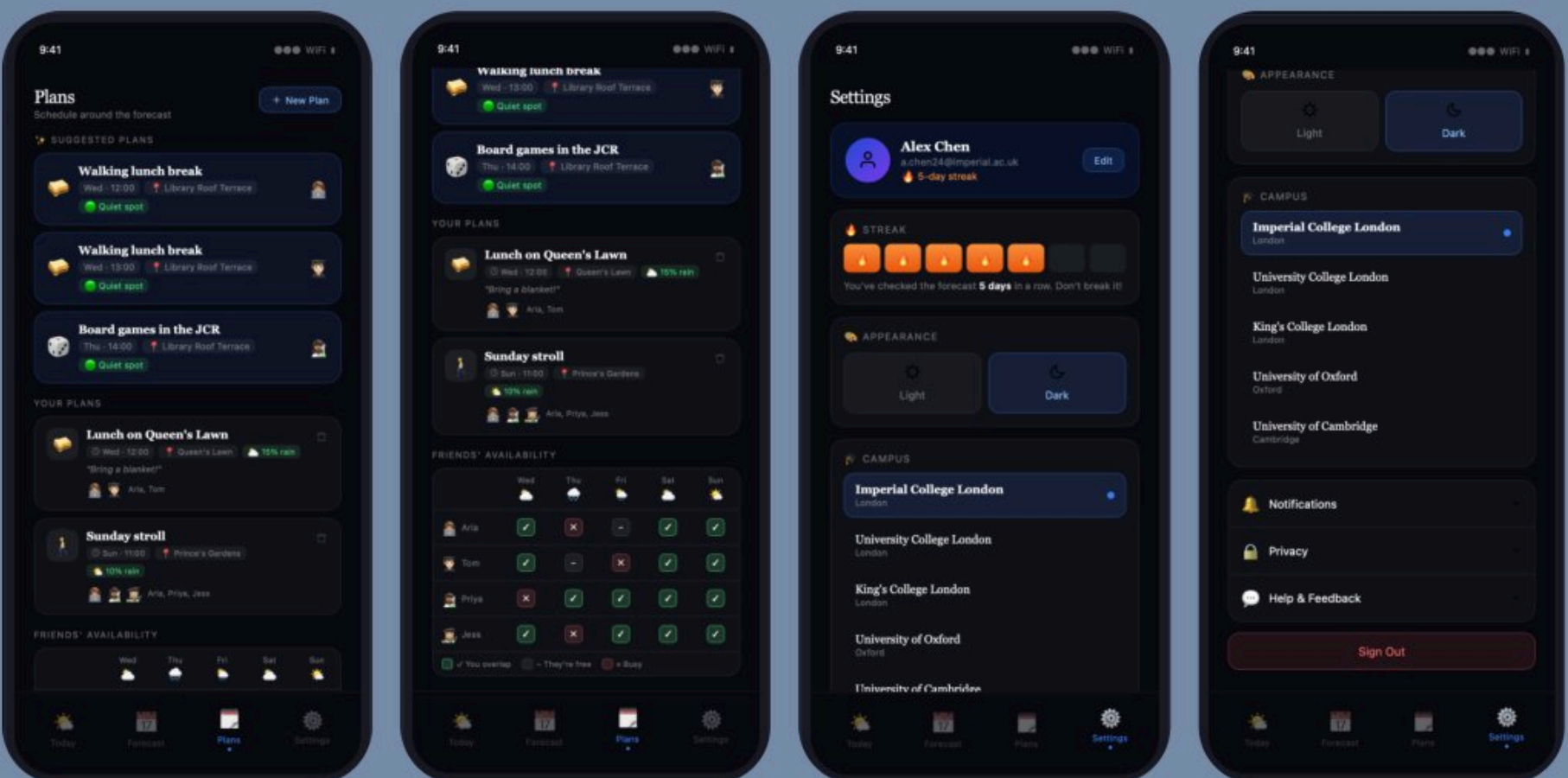
7 - Insights

Appendix

10 - Cooped Up Prototype



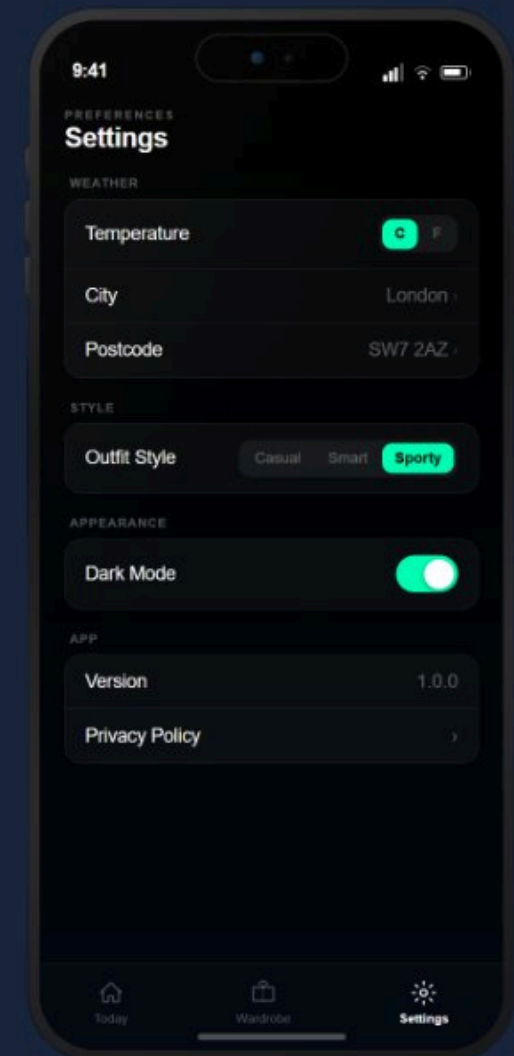
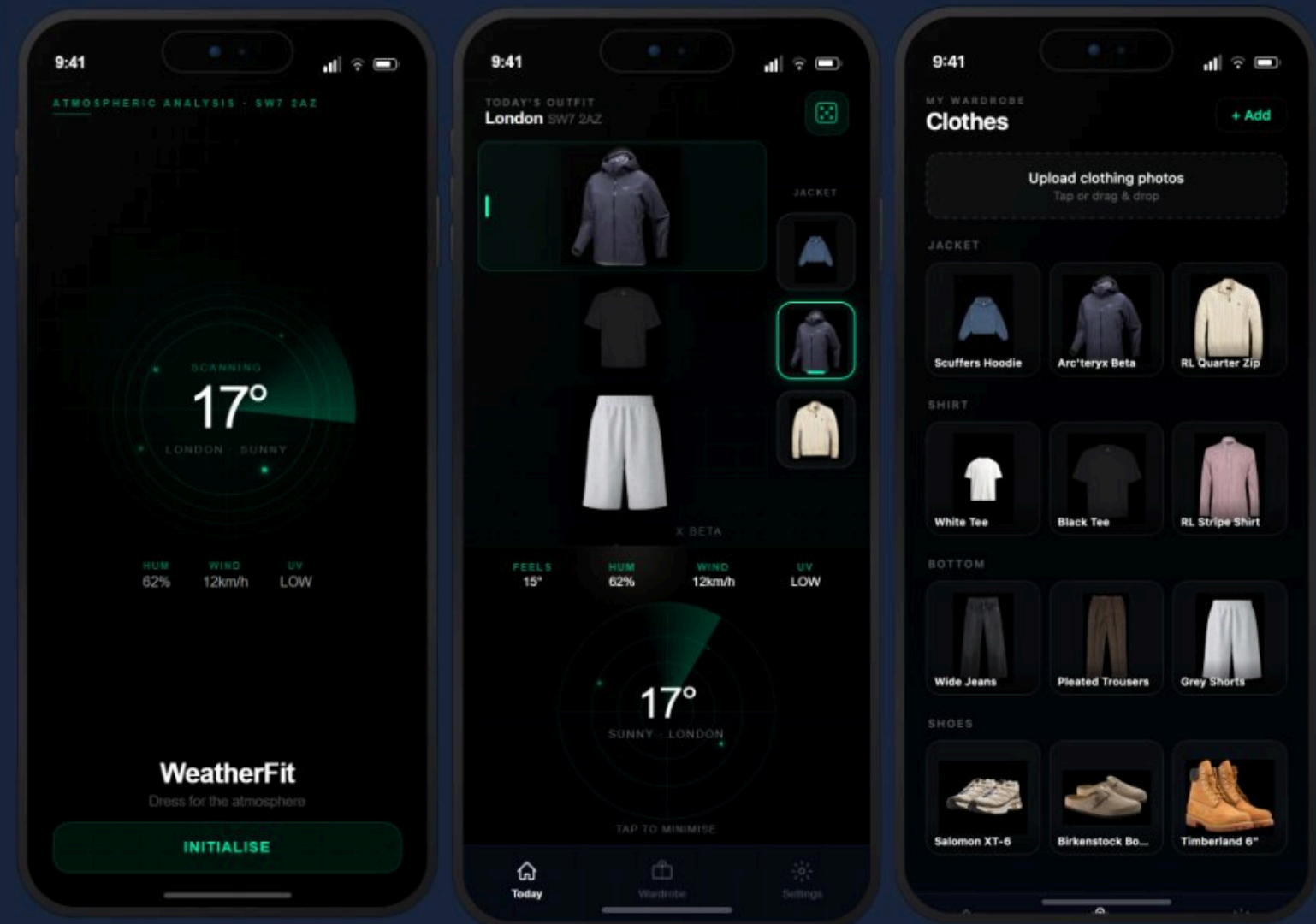
<https://ypndcs.csb.app/>
Link to try it yourself



11 - Weather Wardrobe Prototype

<https://hcde-weatherfitapp.vercel.app/>

Try it for yourself



12 - Outdoor Desk Prototypes

Appendix - Idea Ranking

Category Definitions

Feasibility - How realistic is it that this product could be designed and made

Innovation - How novel and exciting a design is. Does it make use of new technology?

Cost - What would the cost be to students and to the university to implement (5 being the cheapest)

Integration - How well would this product slot into students' current routines

Weather Resistance - How durable would this product be in adverse conditions

Desirability - How helpful would this be to users

Concept	Feasibility	Innovation	Cost	Integration	Resistance	Desirability	Weighted Total /500	
Anti wet shoes floor tiles	3	4	2	5	4	4	370	Rafi
Outdoor Work Desk	4	2	4	4	2	4	330	
Water bottle clothes dryer	3	4	3	4	4	3	345	
Rapid Shoe Dryer	4	4	2	3	5	4	380	
Wet bench Protector	5	2	4	4	4	3	345	
Cooped up app	5	3	5	4	5	3	390	
Clothes drying bike bag	3	4	3	3	3	4	350	
Portable wind break	4	1	4	3	3	4	305	
Liquid cooled lecture seats	3	4	2	5	5	5	405	
Forecast clothing suggester	5	3	5	4	5	4	415	
socialising	5	3	5	4	5	4	415	Nic
Weather app with AI integration	5	4	4	4	4	5	405	
Wardrobe add-on -> clothing suggestions	4	4	4	4	5	4	410	
Portable wind break	4	1	4	3	3	4	305	
Umbrella attachment for tables	4	3	4	2	2	2	285	
schedules	5	4	5	3	5	4	430	
Portable coat drier	2	4	3	3	4	4	340	
Smart campus weather display	4	4	2	5	4	4	390	
Weather alerts	4	2	5	5	5	4	380	
Umbrella rental	4	3	4	3	4	3	340	
Path lighting	3	1	2	5	4	3	270	Luka
Study pods / canopies	3	1	2	4	3	4	275	
Weather reacting backpack cover	2	5	2	4	2	4	345	
Jacket / bag cover	3	4	3	3	3	1	275	
Campus lighting (mood)	3	3	2	5	4	2	295	
Waterproof jacket rental	4	3	3	3	3	3	320	
Campus map + social updates	4	4	5	4	5	4	420	
Rotating covers + seating	3	3	3	4	3	3	310	
Weather integrated wardrobe	4	4	4	4	5	4	410	
Keycard activated umbrella "rental"	4	3	4	3	4	3	340	
Outdoor spaces app (sun exposure, availability share with friends	4	4	5	4	5	3	395	Ozan
tables	4	3	2	4	3	4	345	
Improved picnic tables (charging, storage, clean surfaces)	4	3	3	4	3	4	355	
Tiered coat rack for lecture theatres (think bike storage at stations)	4	4	3	3	4	3	355	
Clothes checking system	4	2	3	3	4	3	305	
Temperature controls in lectures (voting system) + windows	3	4	3	4	5	4	380	
Directions around campus using only indoor spaces	5	4	5	4	5	4	440	
Backpack cover rental (keycard)	4	3	3	4	4	3	340	
Borrowable "desks" for socialising and working outdoors on grass	4	3	3	3	3	5	370	
Umbrella stations	3	4	3	3	5	4	370	
Drying coat rack	3	4	2	3	5	3	335	Rafi
stepped on	1	4	1	5	4	4	320	
Improved cooling method rather than sprinkling water????????????????	0	0	0	0	0	0	0	
2 in 1 backpack rain cover into.....???????	0	0	0	0	0	0	0	
Weather / routine aware scheduling planning & calendar	4	4	5	4	5	4	420	
Cooling fan activated by walking	2	4	3	3	3	4	330	
Lint roller style machine for water	3	5	3	3	5	5	420	
Portable umbrella drier	3	4	3	3	4	3	335	
Heated scarf	4	2	3	4	3	3	305	
Heated gloves	4	1	3	4	4	4	315	
"always dry" benches	3	4	3	5	4	4	380	Ozan
Weather beacons - alerts for upcoming weather conditions	4	3	3	5	4	3	350	
Spinning table to prevent screen glare when outside	4	4	3	4	3	4	380	
Automatic ventilation adjusting jacket	2	4	3	4	4	4	350	
Smart umbrella to take calls from	4	4	3	4	2	3	345	
Weather app with AI integration	4.25	3.25	4.25	4.25	4.5	3.75	390	Nic
Customised weather app - work	4.5	3.25	4.5	3.75	4.75	3.5	388.75	Nic
Temperature controls in lectures (voting system) + windows	3	4.25	3.5	3.75	4.25	3.5	368.75	Luka
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Umbrella rental	3.75	3	3	3.5	3	3.5	332.5	Nic
Weather integrated wardrobe	3.5	2.75	3.5	3.75	4	3.25	332.5	Luka
Keycard activated umbrella "rental"	3.75	3	3	3.5	3	3.5	332.5	Luka
Anti wet shoes floor tiles	3	3.75	2.25	4	3.25	3.25	330	Rafi
Wet bench Protector	5	1.25	4.25	4	3.25	3.25	327.5	Rafi
Umbrella stations	3.5	2.75	2.75	3.25	3.5	3.75	327.5	Ozan
Rapid Shoe Dryer	3.25	2.75	3	3.5	3.75	3.5	323.75	Rafi
Rain and wind protection on picnic	3.25	3	2.25	3.75	3	3.75	323.75	Luka
Spinning table to prevent screen glare when outside	3.5	3.75	2.75	3.25	2.5	3	323.75	Ozan
Clothes drying bike bag	3	4.25	2.75	2.75	2.5	3	321.25	Rafi
Automatic ventilation adjusting jacket	3.25	2.75	3	3.75	3.5	3.25	317.5	Ozan
Weather beacons - alerts for upcoming weather conditions	3	3.5	3	4	3	2.75	316.25	Ozan
Smart umbrella to take calls from	2.5	4.25	2.75	3.25	2.5	3	316.25	Ozan
Tiered coat rack for lecture theatres (think bike storage at stations)	3	3	3	3.75	4	2.75	311.25	Luka
Outdoor Work Desk	3.75	2.25	3.25	3.75	2.75	3.25	310	Rafi
"always dry" benches	2.25	3.5	2.25	3.75	3	3.5	310	Ozan
Portable coat drier	2.25	4	2.5	2.75	3	3.25	308.75	Nic
Improved picnic tables (charging, storage, clean surfaces)	3.5	2.25	2.75	4	2.5	3.5	306.25	Luka
Drying floor tiles powered by being	1.25	4.25	1.75	4	3.25	3.25	302.5	Ozan
Portable umbrella drier	3	3.5	2.5	3	3	2.75	301.25	Ozan
Weather reacting backpack cover	1.75	4.75	2	3.5	2.25	2.75	300	Nic
Drying coat rack	3.25	2.5	3	3.25	4	2.75	298.75	Ozan
Umbrella attachment for tables	4	2.25	3.75	2.5	2.75	2.75	295	Nic
Path lighting	3	3	2.5	4.25	3	2.5	295	Nic
Study pods / canopies	3	2.25	2.5	3.75	2.75	3.5	293.75	Nic
Backpack cover rental (keycard)	3.25	2.5	2.75	3.5	3.5	2.75	293.75	Luka
Waterproof jacket rental	3	3.25	2.25	3.75	2.25	2.75	292.5	Nic
Portable wind break	3.5	1.5	3.75	3	2.75	3.5	290	Rafi
Jacket / bag cover	3	3.5	3.5	2.75	3	2	290	Nic
Clothes checking system	3.25	1.75	3.25	3.25	4	3	288.75	Luka
Cooling fan activated by walking	2	3.75	2.75	3.25	3.25	2.5	288.75	Ozan
Rotating covers + seating	3.25	2.5	3.25	3.25	3.25	2.5	287.5	Nic
Portable wind break	3.5	1.5	3.5	2.75	2.75	3.5	285	Nic
Heated scarf	3.75	2	3	3.5	2.25	2.75	281.25	Ozan
Campus lighting (mood)	2.75	3	2.5	3.25	3	2.25	273.75	Nic
Heated gloves	3.75	1	3	3.25	3	3	267.5	Ozan
Improved cooling method rather than sprinkling water????????????????	0	0	0	0	0	0	0	Ozan
2 in 1 backpack rain cover into.....???????	0	0	0	0	0	0	0	Ozan

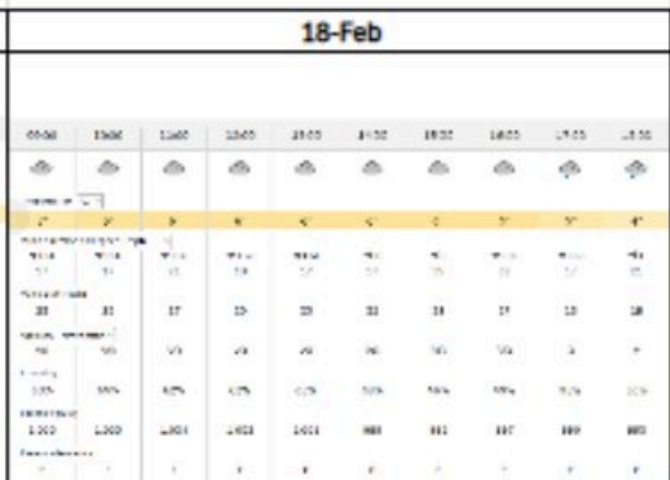
Concept	Feasibility	Innovation	Cost	Integration	Weather Resistance	Desirability	Weighted Total /500	Name
Weather app with AI integration	4.25	3.25	4.25	4.25	4.5	3.75	390	Nic
Customised weather app - work	4.5	3.25	4.5	3.75	4.75	3.5	388.75	Nic
Temperature controls in lectures (voting system) + windows	3	4.25	3.5	3.75	4.25	3.5	368.75	Luka
Forecast clothing suggester	4.25	3	4.25	4	4.25	3.25	366.25	Rafi
Weather checker to encourage	4.25	2.75	4.25	3.5	4.25	3.5	361.25	Rafi
Wardrobe add-on -> clothing suggestions	3.75	3	3.75	4	3.75	3.75	358.75	Nic
Borrowable "desks" for socialising and working outdoors on grass	3.25	3.25	2.75	4	3.25	4.5	358.75	Luka
Lint roller style machine for water	2.5	4.5	2.75	3	3.75	3.75	351.25	Ozan
Weather / routine aware scheduling planning & calendar	4	3	4	3.75	4.25	3	350	Ozan
Campus map + social updates	4	3	4.25	3.75	4.5	2.75	348.75	Nic
Cooped up app	4.5	2.25	4	4	4.5	3	346.25	Rafi
Directions around campus using only indoor spaces	3.75	2.75	4.25	3.25	4.25	3.25	342.5	Luka
Weather alerts	4.25	1.75	4.5	4.5	4.75	3	341.25	Nic
Water bottle clothes dryer	2.75	4.25	2.5	3.75	3	3.5	341.25	Rafi
Outdoor spaces app (sun exposure, availability share with friends	3.75	3	4	4	4.25	2.75	341.25	Luka
Smart campus weather display	4.25	3.25	2.75	3.75	3.75	2.75	337.5	Nic
Liquid cooled lecture seats	2.5	4	1.75	4	3.25	3.75	333.75	Rafi
Umbrella rental	3.75	3	3	3.5	3	3.5	332.5	Nic
Weather integrated wardrobe	3.5	2.75	3.5	3.75	4	3.25	332.5	Luka
Keycard activated umbrella "rental"	3.75	3	3	3.5	3	3.5	332.5	Luka
Anti wet shoes floor tiles	3	3.75	2.25	4	3.25	3.25	330	Rafi
Wet bench Protector	5	1.25	4.25	4	3.25	3.25	327.5	Rafi
Umbrella stations	3.5	2.75	2.75	3.25	3.5	3.75	327.5	Ozan
Rapid Shoe Dryer	3.25	2.75	3	3.5	3.75	3.5	323.75	Rafi
Rain and wind protection on picnic	3.25	3	2.25	3.75	3	3.75	323.75	Luka
Spinning table to prevent screen glare when outside	3.5	3.75	2.75	3.25	2.5	3	323.75	Ozan
Clothes drying bike bag	3	4.25	2.75	2.75	2.5	3	321.25	Rafi
Automatic ventilation adjusting jacket	3.25	2.75	3	3.75	3.5	3.25	317.5	Ozan
Weather beacons - alerts for upcoming weather conditions	3	3.5	3	4	3	2.75	316.25	Ozan
Smart umbrella to take calls from	2.5	4.25	2.75	3.25	2.5	3	316.25	Ozan
Tiered coat rack for lecture theatres (think bike storage at stations)	3	3	3	3.75	4	2.75	311.25	Luka
Outdoor Work Desk	3.75	2.25	3.25	3.75	2.75	3.25	310	Rafi
"always dry" benches	2.25	3.5	2.25	3.75	3	3.5	310	Ozan
Portable coat drier	2.25	4	2.5	2.75	3	3.25	308.75	Nic
Improved picnic tables (charging, storage, clean surfaces)	3.5	2.25	2.75	4	2.5	3.5	306.25	Luka
Drying floor tiles powered by being	1.25	4.25	1.75	4	3.25	3.25	302.5	Ozan
Portable umbrella drier	3	3.5	2.5	3	3	2.75	301.25	Ozan
Weather reacting backpack cover	1.75	4.75	2	3.5	2.25	2.75	300	Nic
Drying coat rack	3.25	2.5	3	3.25	4	2.75	298.75	Ozan
Umbrella attachment for tables	4	2.25	3.75	2.5	2.75	2.75	295	Nic
Path lighting	3	3	2.5	4.25	3	2.5	295	Nic
Study pods / canopies	3	2.25	2.5	3.75	2.75	3.5	293.75	Nic
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Portable wind break	3.5	1.5	3.75	3	2.75	3.5	290	Rafi
Jacket / bag cover	3	3.5	3.5	2.75	3	2	290	Nic
Clothes checking system	3.25	1.75	3.25	3.25	4	3	288.75	Luka
Cooling fan activated by walking	2	3.75	2.75	3.25	3.25	2.5	288.75	Ozan
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Portable wind break	3.5	1.5	3.5	2.75	2.75	3.5	285	Nic
Heated scarf	3.75	2	3	3.5	2.25	2.75	281.25	Ozan
Campus lighting (mood)	2.75	3	2.5	3.25	3	2.25	273.75	Nic
Heated gloves	3.75	1	3	3.25	3	3	267.5	Ozan
Improved cooling method rather than sprinkling water????????????????	0	0	0	0	0	0	0	Ozan
2 in 1 backpack rain cover into.....????????	0	0	0	0	0	0	0	Ozan

Appendix - Weather Diaries

Date	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	16-Feb	17-Feb
Weather	 Detailed screenshot of a weather app showing forecasts for Feb 9 and 10. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 10 and 11. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 11 and 12. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 12 and 13. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 13 and 14. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 16 and 17. It includes icons for sun, clouds, rain, and temperature ranges.	 Detailed screenshot of a weather app showing forecasts for Feb 17 and 18. It includes icons for sun, clouds, rain, and temperature ranges.
	Pretty mid and average	it was just cloudy in the morning when i left the house, but then was raining by the time i was on the way home. this was annoying because i felt like i wasn't dressed correctly, and i ended up being too cold on the way home got rained on on the way home cause i forgot my umbrella. it's also super annoying to carry round cause there's no where to dry it so after use it just sits soggy in my bag side pocket and gets my bag wet. other than that, not much happened. it's always quite hot inside buildings so you take off all your layers (coat and jumper) each time u get inside and then put them all back on again. also nowhere to hang your coat in union. and outside benches were soggy.	got heavily rained on on the way home, didn't realise it would be raining which made it more annoying as i was not wearing waterproofs	Was nice in the morning but rained later on and that was not fun	quite cold - had to wear a lot of layers to walk around and take them all off and carry them when i got inside	Well it was sunny and rainy so it was mixed emotions of happiness and annoyance	i thought it would be warm so didn't bring a coat but then was very cold by the time i was going home
	Not much, was a little cold so had to wear a coat or hoodie while outside					It was great weather today made me happy. The sun was really bright and it was quite consistent so that was really nice. I think it rained but it was over before I went outside so overall great weather day	
	The sun made my day better, it improved my mood, was nice to see it on a stressy depressy monday. The wind was cold so i wore a jumper.	i didn't bring a coat and got wet outside. i went down to collect take out and couldn't be asked to put shoes on properly so my feet got wet :)	It doesnt affect me be happy either way	It stopped raining, which made my commute much more pleasant and safe.	Liked the wind in my face on the bike lowkey 🥰	It was raining again which made the day slightly worse but had a nice 10 minute window of sun.	Stayed inside most of the day but when I went on a run it was nice and refreshing (slightly windy)
	I was driving and the rain made it hard to see and made the roads slippery. This was frustrating.	It rained during the day while i was inside, which meant cycling home was more slippery than usual and more dangerous	The weather was slightly better, meaning I had less clothing to wear. The sun came out slightly meaning positive vibes all round!	Rainy kinda miserable ibr		It was really nice to have lots of sunlight in the morning, makes it earlier to properly wake up and be outside and in general it puts me in a good mood.	Nearly fell of my bike on exhibition road because a wet manhole cover. The whole road layout is really bad for turning into uni and prince's garden, it's dangerous with pedestrians trying to cross, all the metal bits on the road, and the wavy tiles on the floor are super slippy on a bike. Other than that, it was pretty cold so had to wear a hoodie and coat
	Was indoors in a room w no sunlight the whole day	It was miserable and spitting with rain		Went back and forth between my halls and campus a few times, my hoodie, bag, and shoes got soaked multiple times so I had wet feet whenever I went back into campus (as my shoes wouldn't dry out) and had to change to a coat. Wishing I had an umbrella. Also my previously white shoes now have mud on them from puddles.		super pleasant weather today j needed a jacket all day. kinda windy towards the end which wasn't nice and south ken tunnel was closed on the way home 🥲	It was very cold but still a sunny day so all in all weather was great and improved my mood
	Mid	Made me annoyed and miserable due to spitting and misty weather	It was a weird temperature which meant that I was too cold when I was outside but then way too hot as soon as I got inside and had to take loads of layers off			Woke me up nicely in the morning	
	Not much, the weather was fairly calm and cool. I had to wear an extra layer.	Bit of rain, was somewhat slippery when walking outside. The weather didn't affect me much because I had a busy day				Nice weather today, sun + no clouds meant i can wear a nice outfit	
		Bit better than mid					
		Vague memory of it being grim and avoiding puddles on campus					
	It rained and I didn't have a hood so it was bad.						
	Shoes got wet while walking to campus, fortunately dried out reasonably quick in ACEx which is super hot.						
	It was sunny and made me feel happy and warm						

Appendix

Weather Diaries pt2

18-Feb	19-Feb	20-Feb
		
Unexpected rain didn't prepare for it and got wet. Not happy brev	too cold in library once you've taken your jacket off and you're sat there for a while it's j so chilly. hands get sooo cold when cycling into uni and i always forget gloves.	Well it's pouring down with rain so I felt miserable
thought it was nice in the morning, left in a non rain coat on the way back got absolutely finished by the rain	Not saying this to be a pain/ cos I can't be asked but today was probably the middest day of weather ever like idek if it was sunny or rainy just mid	Rain was a pain going to Union
Bro I literally didnt even go outside all day. Wanna cry	what an actually really lovely day!! i felt happy today because the skies were clear and my outfit was the right temperature	Weather was pretty good today but it was rly cold outside and super warm inside so I was a bit confusing.
Was cold, wore a coat, then started melting when I got to my lecture cos it's so hot	Was another cold day, all the rain has caused a lot of the green spaces to become unusable which is upsetting as I enjoy walking through them. While doing sport in the JCR I was very warm and it was uncomfortable because it's so hot in there.	Saw a stream of sun in the library. Brought some relief to the anguish of coursework. They really gotta remove the tinted window covers, at least in winter (maybe something that allows a certain level of light through but then filters past a certain range)
Very cold weather made me cold and sick	quite cold and miserable, very inconsistent weather over the past week so deciding what to wear is a pain	quite windy in the morning, but relatively mild later on in the day. was worried it would rain so i brought a coat
		The rain made me decide to go shopping tomorrow and I did nearly slip when I walked on the mud/ grass in Prince's Gardens

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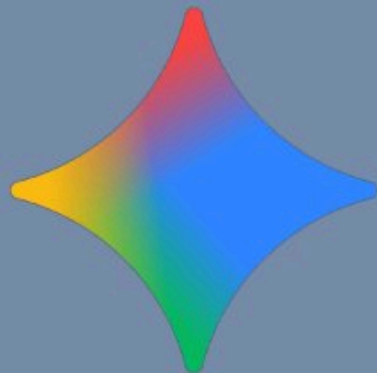
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AI tools used in project:

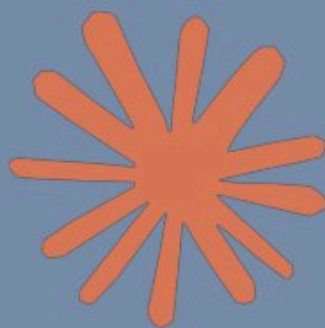
ChatGPT - V5



Gemini 3



Claude - 4.6 sonnet



Declaration of AI use:

We acknowledge the use of ChatGPT-5 (OpenAI) to rephrase writing to improve conciseness, Gemini 3 for image editing, and Claude - 4.6 sonnet to help code prototype apps. All research, analysis, insights, and ideas presented in this report are our own work.

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