

Lab 5 – Sketching, Scenarios and Storyboarding

Part 1: Ideation/Generate design ideas

Features from Affinity Diagram:

List the problems/categories you identified from the AD – and list potential suggestions and feature descriptions (you should have 6-8 potential features as a starting point)

Problem\Theme from AD	Suggestion/s	New or improved feature
NAVIGATION SIGNS	Directions and signs on a large campus guide students easily proving to be an essential tool for navigation.	Add AR features to show virtual signs and arrows on your phone screen for easy campus navigation.
PERSONALIZED APP INTERFACE	Users want an app that understands them and feel comfortable working with.	Make the app interface customizable – change themes, adjust text size, and get personalized route suggestions.
VISUAL AIDS IN NAVIGATION	Seeing visual directions for navigation when in noisy areas always makes it easier for users with better understandability.	Include clear visual maps with simple landmarks and a 'simplified map' mode focusing on main paths.
AUDIO ASSISTANCE IN NAVIGATION	Users resort to audio assistance when they are confused with the visual aids proving to be useful in many cases.	Create a voice navigation system in the app for spoken directions and make it compatible with Siri and Google Assistant.
NAVIGATING WITH GOOGLE MAPS	Google maps help with fastest and shortest route when in unfamiliar areas	Integrate Google Maps for up-to-date navigation and route suggestions based on your schedule and campus events.
ACCESSIBLE NAVIGATION FOR BVI (BLIND AND VISUALLY IMPAIRED) USERS	Voice assistance helps BVI users as it is the best approach for them in absence of someone's assistance.	Offer features like audio descriptions, tactile feedback, and screen reader support for blind and visually impaired users.

10 plus 10 Sketching

Choose 3-4 features (3 for group of 3 and 4 for group of 4) to explore with a revised 10 plus 10 sketching approach (you will do a *10 plus 5* approach). Assign a member to sketch one of the features using this approach. (Attach all drawings in the appendices for this lab).

Before sketching, remember you sketches should reflect different design ideas for the given feature based on the problem that the feature should help solve using the project device. You do NOT have to be an artist to sketch your ideas. They are to be fast sketches to get an idea across.

For all Features:

Round 1 (10-12 minutes max)

These 10 sketches should reflect *different* and diverse ideas of what how the feature could look or could be used (could be something useful or playful). The idea is to be **as creative and diverse as possible** (remember don't worry about the feasibility of the ideas).

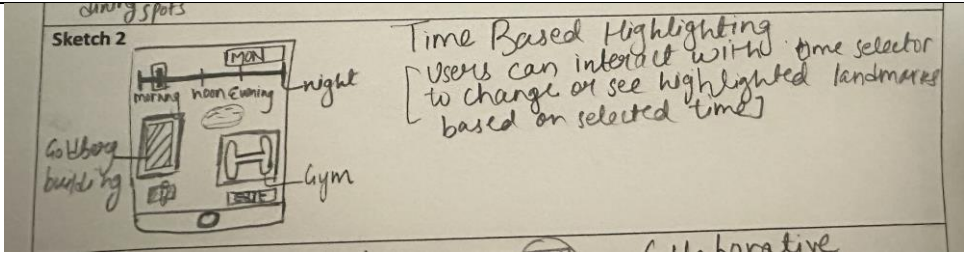

Round 2 (10-12 minutes max)

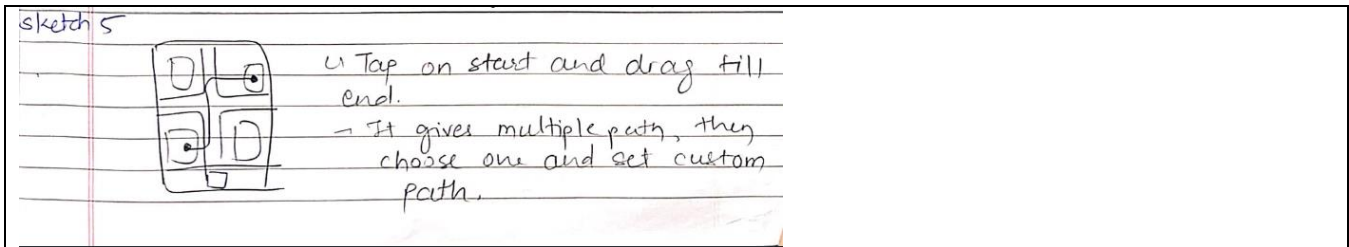
After you've sketched the first 10 ideas, choose (individually) the most promising direction (in your opinion) and create 5 *different variations* of that idea and/or refinement of that idea.

Round 3 (10-12 minutes max)

In your groups, each member goes through their 5 sketches from round 2. As a group, select one of the presented 5 ideas to explore first in storyboards (and later as prototypes). Include the image with a couple of points explaining why you decided on it in table below. [note, if the group isn't happy with any sketches, you can re-do the process but have all team members do it for the feature]

Sketch Choices

Feature 1 Sketch Choice - Time Based Highlighting (Personalized Landmark Highlighting)	
Reasons for selecting this sketch for Feature 1: We chose time-based highlighting because it offers users real-time information about nearby study spots, aligning with their immediate needs and schedules. This feature optimizes user time management, helping them make the most efficient use of their study sessions and enhancing their overall productivity on campus.	
	
Feature 2 Sketch Choice – Finding new landmarks	
Reasons for selecting this sketch for Feature 2: We chose this sketch as students are often not aware of the wide range of facilities their university campus offers. This variant helps them know about the locations they have not been to and are unaware of, thus helping them make full use of the facilities and amenities provided by the university.	
	
Feature 3 Sketch Choice	
Reasons for selecting this sketch for Feature 3: We opted for the tap to navigate feature because it swiftly confirms routes and ensures Abby's timely arrival at her destination, demonstrating the app's proficiency in facilitating campus navigation. It effectively assists users in navigating around campus with ease.	
[selected sketch]	



****The group of 4 will choose 3 features to move forward with.**

Part II: Scenarios and Storyboards

Using the 3 designs from the sketches create the scenarios and storyboards for the features.

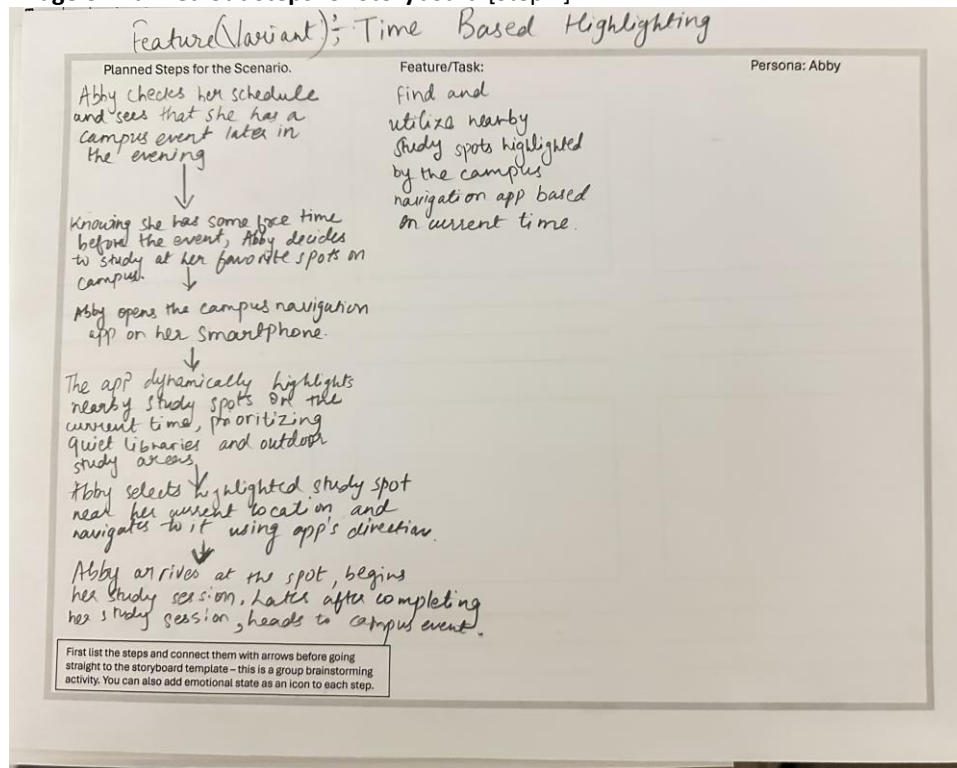
Design 1 Scenario

Scenario: Abby, a 4th-year Mechanical Engineering student, is attending a campus event later in the evening. She wants to make the most of her time before the event by studying at her favorite spots on campus. To ensure she stays productive and organized, Abby utilizes the campus navigation app's time-based highlighting feature. This feature dynamically highlights nearby study spots based on the current time, helping Abby efficiently plan her study sessions before the event.

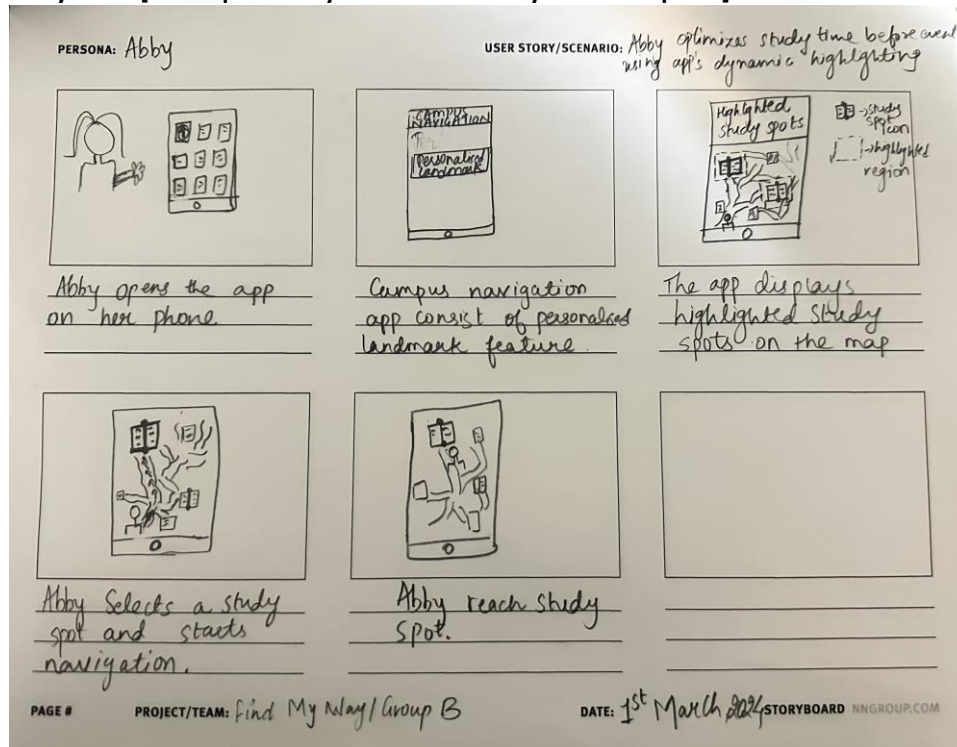
Task for the scenario

Find and utilize nearby study spots highlighted by the campus navigation app based on the current time.

Image of Planned out Steps for Storyboard [Step 4]



Storyboard [take a photo of your sketched storyboard and paste]



Design 2 Scenario

[1-2 paragraphs (remember to include one path only i.e. only one choice for the user like the example of buying movie tickets)]

Abby is having a break and uses the campus navigation app to explore new areas on campus. She gets a list of places she has not been to on campus. She moves in a direction to a nearby spot where an avatar pops up to inform her of a hiking spot nearby, she has not been to. She gets audio directions for the landmark, and she reaches the hiking spot where she found a place for her hobby.

Task for the scenario

[that you could ask a user to do/expect a user to do with the feature (e.g., like the example with the movie kiosk)]

Find new places on campus to explore for different purposes using the application.

Image of Planned out Steps for Storyboard [Step 4]

[list the steps and connect them with arrows and can also add emotional state as an icon to each step if makes sense – take a photo and include]

usually rely on technology for navigation, but today, pressed for time, she decides to use the campus navigation app. Tapping on her location and the classroom's icon, she hopes it will guide her smoothly to her destination.

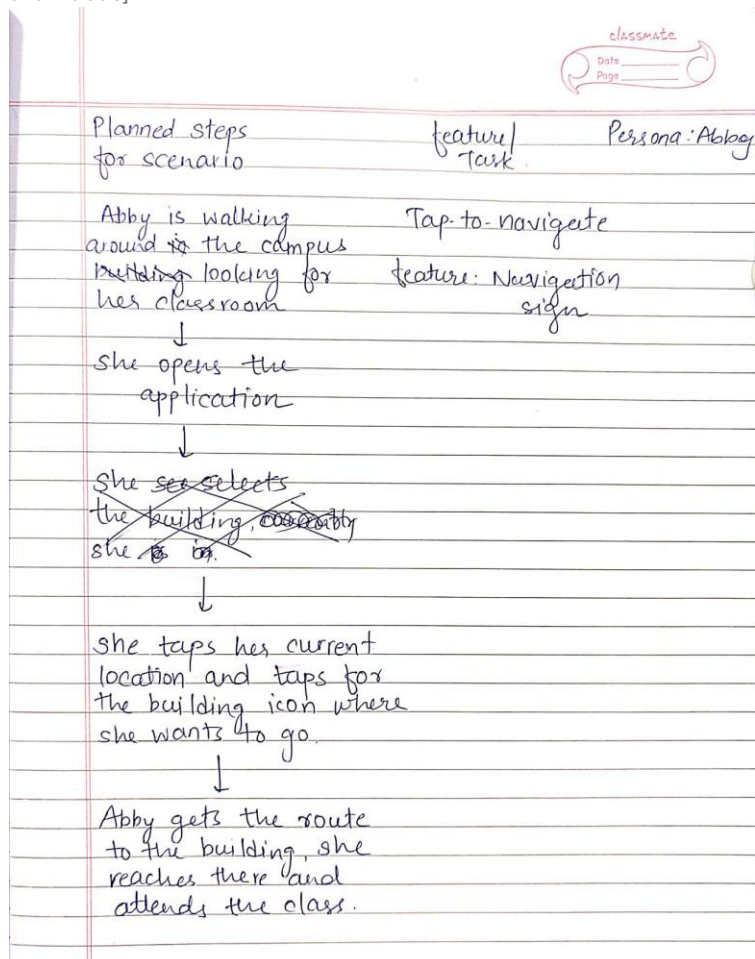
Task for the scenario

[that you could ask a user to do/expect a user to do with the feature (e.g., like the example with the movie kiosk)]

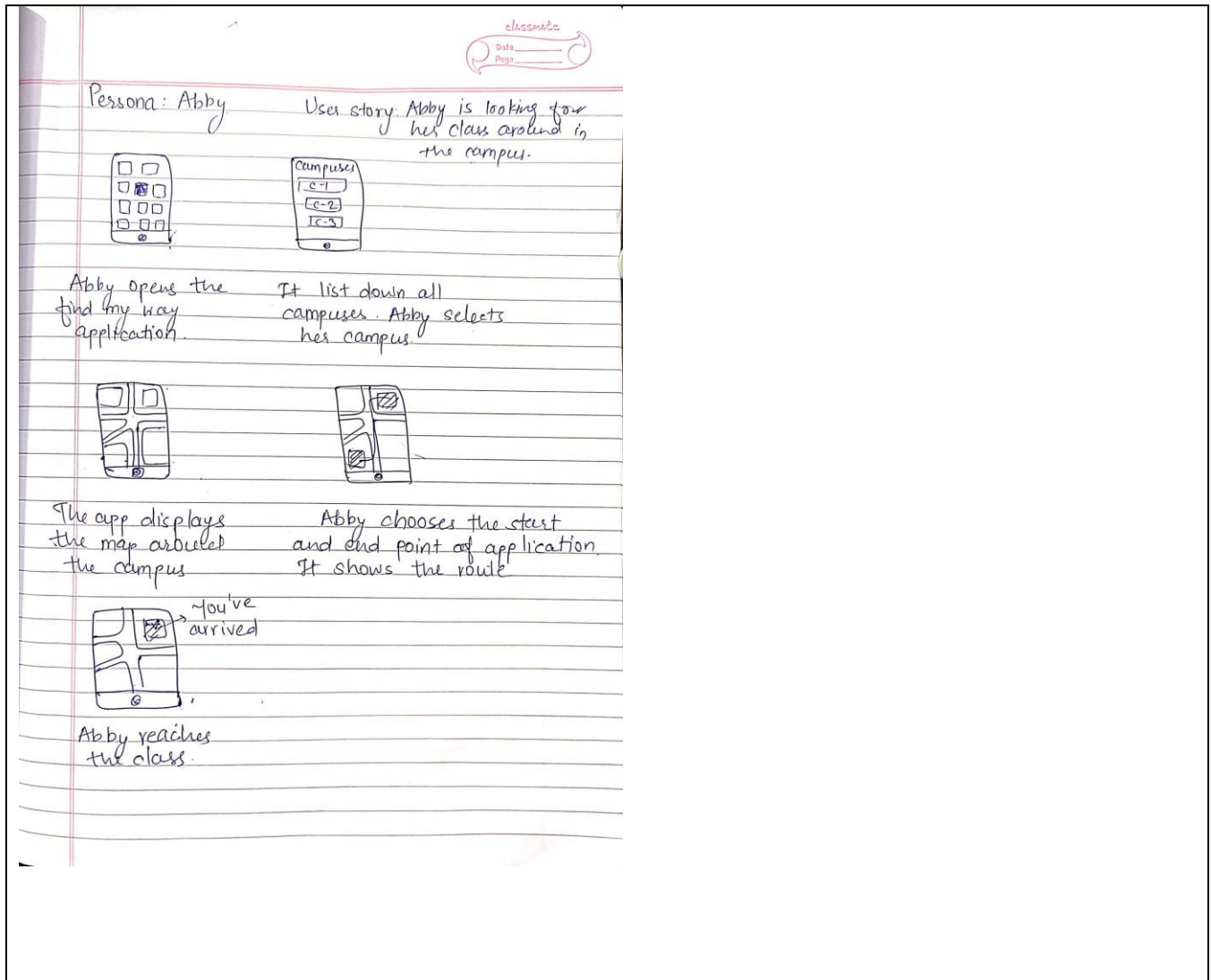
To find a lecture hall in the unknown building.

Image of Planned out Steps for Storyboard [Step 4]

[list the steps and connect them with arrows and can also add emotional state as an icon to each step if makes sense – take a photo and include]



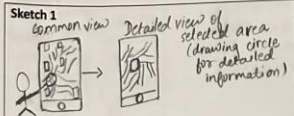
Storyboard [take a photo of your sketched storyboard and paste]



Appendix A: Sketches of Features [attach img/photo of the sketches of the team]

Feature 1 sketches:

Sketch 1



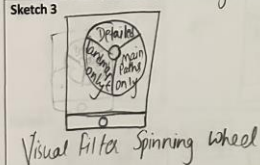
Gesture Recognition: to toggle between simplified & detailed views

Sketch 2



Heatmap Toggle to switch between standard & heatmap travel path

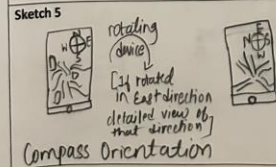
Sketch 3



Sketch 4



Sketch 5

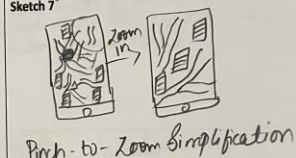


Sketch 6

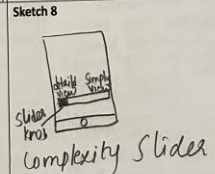


holding land marks, simplified view, detailed view

Sketch 7



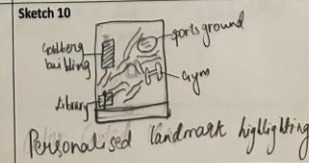
Sketch 8



Sketch 9



Sketch 10

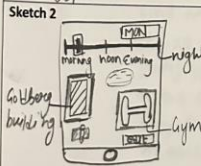


Sketch 1



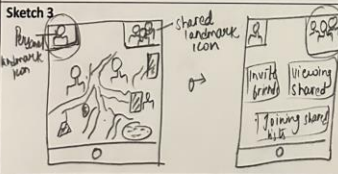
users can interact with the sidebar to select and manage their personalised landmark collections

Sketch 2



users can interact with time selector to change or see highlighted landmarks based on selected time

Sketch 3



users can interact with shared landmarks, such as tapping to view details or adding them to their own collections

Sketch 4



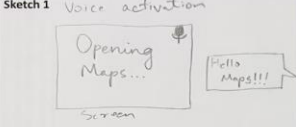
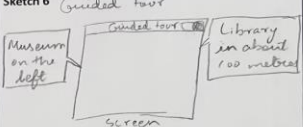
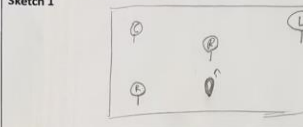
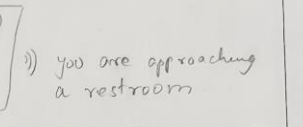
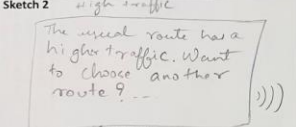
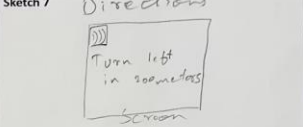

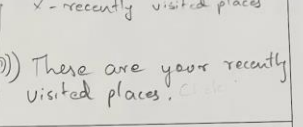
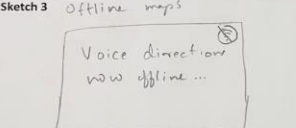
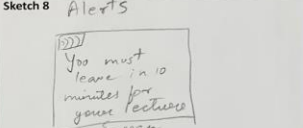
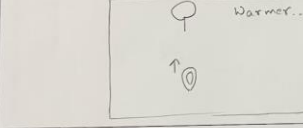
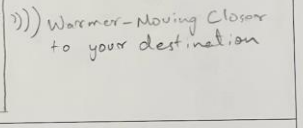
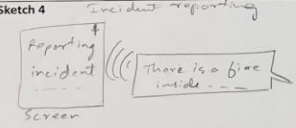
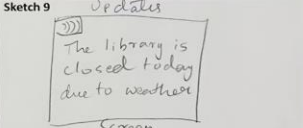

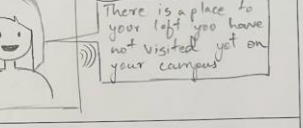
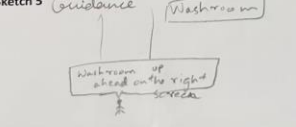
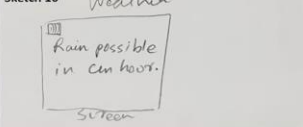

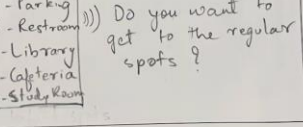
users can differentiate between landmarks and campus event markers to distinct color and by tapping on it, will display event detailed information as pop-up

Sketch 5



users can zoom in & out at map interface and as users zoom in highlighted landmarks change dynamically

Feature 2 sketches:

10 plus 5 Round 1		Name: VISHESH PATEL Feature: AUDIO ASSISTANCE	
Sketch 1 Voice activation 	Sketch 6 Guided tour 	Sketch 1 	Sketch 2 
Sketch 2 High traffic 	Sketch 7 Directions 	Sketch 3 	Sketch 4 
Sketch 3 Offline maps 	Sketch 8 Alerts 	Sketch 5 	Sketch 6 
Sketch 4 Incident reporting 	Sketch 9 Updates 	Sketch 7 	Sketch 8 
Sketch 5 Guidance 	Sketch 10 Weather 	Sketch 9 	Sketch 10 

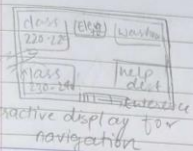
Feature 3 sketches:

10 plus 5 (Round 1)

Name: Kruti Panchal

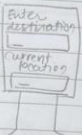
Feature: Navigation signs

Sketch 1



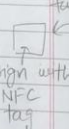
Interactive display for navigation

Sketch 2



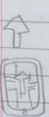
Kiosk display. User can enter information and get navigation to desired destination

Sketch 3



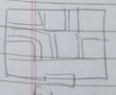
sign with NFC tag. Campus information after tapping the tag

Sketch 4



Using AR, it shows dynamic navigation to users according to their location and direction

Sketch 5



Holographic campus guide at entrance to show landmarks, classes and other location

Sketch 6



QR code. Scan QR code to know detailed map of specific place

Sketch 7



Bluetooth beacons detecting user presence and provides navigation

Sketch 8



Provides navigation considering different way of transport

Sketch 9



Use landmarks for navigation

Sketch 10



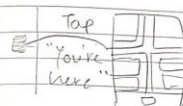
choose existing route in the system, saved by other users. Pre-made tours by users

10 plus 5 Round 2

Name: Kruti Panchal

Feature: Navigation signs

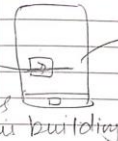
Sketch 1



Building

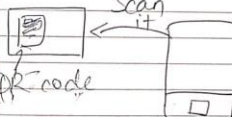
User can tap at the point attached to building to get location and route

Sketch 2



It pops up to route to the building and other information regarding it.

Sketch 3



get the route and information

Sketch 4



double tap

[gets two options]

- (1) If route saved by previous users then that route
- (2) look for new one & add in db

Sketch 5



Tap on start and drag till end.

It gives multiple path, then choose one and set custom path.