

# Tests and Risks Reflection Report

ISEM:502-51-R Human-Centered Design - Perspectives and Methods

## Executive Weekend Support Application (EWSA)

Dean D'souza  
FNU Arun  
Princess Dianne Bungay

### Exercise Summary:

The team decided to stick with an investment amount of \$100. Each member chose a color for their representations as follows:

Dean D'souza - Blue  
FNU Arun - Green  
Princess Dianne Bungay - Yellow

#### 1. How many votes were given to what items, for what total dollar amount?

The list of items and votes for each are as follows:

	Dean	Arun	Princess	Risk	Total
Personas	\$20	\$15	\$ 25		\$ 60
Action Flows	\$10	\$15	-	*	\$ 25
User Stories	\$15	\$15	\$ 20	*	\$ 50
8-Ups	\$15	\$10	-		\$ 25
UI Guidelines	\$5	\$10	\$ 15		\$ 30
Wireframes	\$20	\$15	\$ 20		\$ 55
Prototype Elements	\$15	\$20	\$ 20	*	\$ 55
<b>Total Vote Amount</b>	<b>\$100</b>	<b>\$ 100</b>	<b>\$ 100</b>		<b>\$ 300</b>

## **2. What items were deemed risky? Why?**

The following are the list of items deemed risky:

- The action flow analysis may not capture all possible paths that users may follow to complete a task. This may lead to unforeseen or unintended interactions which need to be handled appropriately. If not handled appropriately it may lead to unnecessary frustration.
- An item that was deemed risky was our user stories. There's a risk that we didn't capture important user stories in other people's perspectives. In the real world, we'd interview more users, and we should be able to identify more user stories.
- The wireframes may not cover all possible layouts that could be appropriate for use on the desired platform. Some of the ideas introduced such as the possibility of a persistent toolbar may need to be properly thought out so as to avoid distracting or confusing the user.
- There's also a risk that our paper prototype will not cover all possible screens of user interactions from end-to-end due to time constraints. Additionally, the paper prototype elements need to be properly made.

## **3. What general feedback about your project output to date came to light from this exercise?**

The persona ideas (which earned \$60) plays a very important role in the entire design process. The more we think like our personas, the more user-centered our product is going to be. This affects the user stories, which in turn helps to keep user needs and limitations in mind along with the UI guidelines to come up with ideas for the wireframes and prototype. Also, that design features would have to be prioritized based on the budget. Overall, there was positive feedback, especially in the case of the UI guidelines.

## **4. What specific feedback did your team glean from this exercise?**

Ideas such as ride-sharing, scheduling and finding places nearby were received well.

However, wireframes may need to be refined further for better positioning and ordering of elements as per relevance. For example, a better form of how the schedule is displayed is required.

The prototype also needs to be better thought out in terms of different icons and size and positioning of the elements.

## **5. What garnered the most feedback? Based on which persona?**

The ideas that came up as a result of the specifications of personas garnered the most feedback from all, particularly from the George persona in terms of what functionalities were considered important.

An idea introduced in the 8-ups on ridesharing also got feedback from the persona of Amy.

## 6. What does this new feedback mean to your prototype and wireframe plans?

The wireframes need to be thought out more and various buttons and elements need to be positioned better. The paper prototype elements especially need to be resized and reorganized to properly reflect the wireframe layouts. More work needs to be put into both to be more presentable to the user.

## Exercise Materials:

Due to lack of resources (in terms of screens and ability to print materials with good levels of clarity), cropped images of the exercise materials are presented as follows:

### Personas:

The image shows a presentation slide for 'Persona 3: Olga, the Organizer'. On the left is a vertical sidebar with slide numbers 6 through 14. The main slide content includes a photo of Olga, her name, age (42), and occupation (Learning Technologies Professor). Below the photo is a quote: "I like things simple and efficient." To the right of the photo is a paragraph about Olga, followed by four sections: 'Sees', 'Does', 'Thinks', and 'Feels', each containing a bulleted list of observations and needs. A yellow sticky note is pinned to the right side of the slide, containing a price tag '\$25' and a handwritten-style note about user feedback.

**Persona 3: Olga, the Organizer**

**About Olga:**  
Olga has been teaching for more than 20 years in Terre Haute, IN. She recently moved to Philadelphia, PA with her husband and daughter for her husband's job. She is neat, punctual & organized. She likes to plan in advance to make the most of her time. Her level of confidence with technology is intermediate: she has a smartphone but with only the basic apps. She always has a pen and notebook with her.

**Name:** Olga  
**Age:** 42  
**Occupation:** Learning Technologies Professor

*"I like things simple and efficient."*

<b>Sees</b> <ul style="list-style-type: none"><li>Students who seem lost or just hanging out on the corridors</li><li>Activity/events boards of what's happening this week</li><li>Parking space availability</li></ul>	<b>Does</b> <ul style="list-style-type: none"><li>Tries to help out lost students</li><li>Plans her itinerary for the day</li><li>Packs her lunch</li><li>Look for a quiet room to meditate or relax</li></ul>
<b>Thinks</b> <ul style="list-style-type: none"><li>She should get a campus map</li><li>Where to park her car</li><li>The shortest path between her classes to save time and effort</li><li>How to contact Technical personnel with issues on devices</li></ul>	<b>Feels</b> <ul style="list-style-type: none"><li>Enjoys interacting with students and co-teachers</li><li>Accomplished when everything goes as planned</li><li>That she should pay it forward when someone helps her</li></ul>

**\$25**  
I think this idea gives the best bang for my buck! Everything we plan/design that aligns with our personas get us closer to a great user-centered product.

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Sprint #1 Report and Materials - DUE JAN 29 20:00

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10 \$15 For the student persona.

11 The App being designed tries to cover the range of needs of this working student persona and hence this persona is a strong fit for reference while building the App.

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### Persona 2: Amy, the diligent student

About Amy:  
Amy completed her first masters in biotechnology and had been working as a junior cancer research assistant in Richmond, VA for two years. She decided to learn more about computers and get a second masters while still being able to continue working. She hopes to learn coding and implement this to build models for her research activities.



Name: Amy  
Age: 25  
Occupation: Part-time student (Cancer Research Assistant)


*"I love technology! It's too bad technology doesn't always love me"*

<b>Sees</b> <ul style="list-style-type: none"> <li>Getting good grades</li> <li>Access to good libraries</li> <li>Working with students and faculty to maximise effectiveness of the learning process</li> <li>Travel time from her home to the university</li> </ul>	<b>Does</b> <ul style="list-style-type: none"> <li>Checks with other students and groups on facebook on which courses to take</li> <li>Uses scheduling apps to help track the class timings and assignment due dates</li> <li>Drives to and from the university</li> </ul>
<b>Thinks</b> <ul style="list-style-type: none"> <li>Need to schedule time in order to juggle between studies and work</li> <li>Needs to plan trips to and from the university effectively</li> <li>Needs to find out more about future subjects</li> </ul>	<b>Feels</b> <ul style="list-style-type: none"> <li>She may miss assignment deadlines</li> <li>Might not take the correct combination of courses</li> <li>She might be late for class if there is too much traffic</li> </ul>

Click to add speaker notes

### Persona 1: George, the scatterbrain

About George:  
George finished his bachelor's degree as one of the top of his class. After which, he worked for while as a computer technician for a major corporation. After a year and a half of working he decided that he wanted to get a Master's Degree. He chose Harrisburg University for the convenience of learning while staying with his family in New York, but due to being a bit of a scatter brain, he tends to easily forget which classroom he needs to go to next, what he needs to have on him and usually ends up forgetting to book tickets for travel early.



Name: George  
Age: 23  
Occupation: Full-time student

*"I'm going to be a straight A student. If I can figure out how to manage everything."*

<b>Sees</b> <ul style="list-style-type: none"> <li>Schedule for classes</li> <li>Discrepancy in courses taken</li> <li>Time between lectures</li> <li>Time before his train departs</li> </ul>	<b>Does</b> <ul style="list-style-type: none"> <li>Books travel tickets late</li> <li>Asks at the help desk about his query</li> <li>Gets something to eat from the Deli next door</li> <li>Waits on campus till it's time to depart</li> </ul>
<b>Thinks</b> <ul style="list-style-type: none"> <li>Book tickets once home</li> <li>Search for the general information email he had received</li> <li>Grab something to eat nearby</li> <li>Nothing to do on campus in the evening</li> </ul>	<b>Feels</b> <ul style="list-style-type: none"> <li>Sure that he will remember to book tickets</li> <li>Confused about what he should refer or who he should ask first</li> <li>Hungry and worried about being late for the next lecture</li> <li>Bored and tired of waiting for the train</li> </ul>

\$20

Personas give a good idea of the kind of users who will use the application and give the core functionalities that are expected from the application. For example, some important ideas and functionalities that came about from this work product were the needs to include:  
Class schedule  
Navigation  
Information on campus resources



**ObserverRecorderNotes.pdf**

**Roles**  
 User: Dean  
 Observer: Princess  
 Recorder: Arun

**Observer Notes:**

User immediately sees all the different options or categories of places or events from the main screen.  
 He wanted to see more options so he pressed "More".  
 He guessed what he's looking for is in Local Flavor.  
 He sees that the search results defaulted to displaying options from his current location. He is currently not in the HU area, so he had to update the location.  
 He didn't find anything he wanted. He wanted to "go back" to where he was.  
 He was struggling to do that and guessed typing something on the search bar might do the trick. He selected another category and noticed the results seem too far (distance-wise) from the campus.  
 He searched for more options. He got more generic categories and results.  
 He, again, had to update his search location, and didn't seem too happy about that based on the tone of his voice. (This happened to him many times.)  
 His selection does not give details. He clicked on the map and the map didn't really make sense to him, so he tried to "zoom out" to make sense of the location it is showing him.  
 He didn't find what he was looking for.

**Recorder Notes:**

The user spends close to 7 minutes on the application to figure out a place where he can spend some time before catching his train back to his place. There was a quite a lot of generic information available for places to hang around but not much which suggested places where the university students hung around. Also, the user could not find one close by and this was a pain point.

**Sticky Note:**  
 \$15 For the action flow where the user tries to navigate an App.  
 Very nicely the observer has captured the users frustration in using the app.

## User Stories:

**Sprint #2: Divergence & Convergence**

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**Job Stories**

The following are some of the job stories we wrote during class.

- When his class gets cancelled due to unexpected circumstances, George wants to find a place to hangout so that he can spend his time effectively.
- "When I arrive to the university, I want to find my classroom so I can do my class." - Prof. Olga
- When the face-to-face classes take place, Amy wants to find people near her area so that she can share a ride to the university.

**Sticky Note:**  
 \$20  
 User stories or job stories are great ideas to identify use cases and can be used to formulate ideal and edge case functional narratives.

**Inset Image:**  
 Several yellow sticky notes with handwritten text, including phrases like "When I arrive to the university", "I want to find my classroom", and "I can do my class".



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**Sprint #2: Divergence & Convergence**

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arunvin@gmail.com

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**Job Stories**

The following are some of the job stories we wrote during class.

- When his class gets cancelled due to unexpected circumstances, George wants to find a place to hangout so that he can spend his time effectively.
- "When I arrive to the university, I want to find my classroom so I can do my class." - Prof. Olga
- When the face-to-face classes take place, Amy wants to find people near her area so that she can share a ride to the university.

\$15 For ride sharing

The App is being designed to make life easier for students. Being able to find a ride share quickly enables students to save up cash and make friends.

When I arrive to the university, I want to find my classroom so I can do my class." - Prof. Olga

When the face-to-face classes take place, Amy wants to find people near her area so that she can share a ride to the university.

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turned off by student).

She was able to start the class on time.

**Functional Narrative 4: What-If Scenario**

**People:** Derrick (new persona created for this exercise)

**Environment:** Harrisburg University of Science and Technology, Common Area

**Situation:** Accessing course materials before class

**Products:** Smartphone

Derrick had spent most of his life trying to not let his ADHD (Attention Deficit Hyperactivity Disorder) affect his studies and daily life. While he had been mostly successful throughout high school and while obtaining his undergraduate degree, he knew that he would have to try and put in some extra effort for the graduate program he enrolled into at Harrisburg University of Science and Technology. Being enrolled in the Executive Program made things a bit easier.

After arriving at the university early on the morning of his weekend visit, he feels like he has ample time to go over the materials that would be discussed in his next class. He

starts up the Executive Weekend application, while walking around the ground floor of the university, and is brought to the homepage where he sees a note that he has an upcoming class. He taps on it, which gives him further details about the room number and the exact start time of the class along with a bell icon.

**Outline**

**Functional Narratives**

**Functional Narrative 1: Ideal Scenario**

People: George (Persona 1)

Environment: Harrisburg University of ...

Situation: Finding a place to eat nearb...

Products: Smartphone

**Functional Narrative 2: First Use Sce...**

People: Amy (Persona 2)

Environment: User's Home at Richmo...

Situation: Carpooling for the weekend ...

Products: Smartphone

**Functional Narrative 3: Edge Case Sce...**

People: Olga (Persona 3)

Environment: Harrisburg University of ...

Situation: Experiencing a technical pro...

Products: Smartphone, Laptop and Pr...

**Functional Narrative 4: What-If Scenario**

People: Derrick (new persona created...

Environment: Harrisburg University of ...

Situation: Accessing course materials ...

\$15

User stories and narratives helps to identify a number of cases where the application may fail to consider user needs and limitations.

8-Ups:

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## 8-Ups (2nd Round)

The team repeated the process of 8-Ups after sharing the first round results.

**\$10 For ride sharing**

This 8 up shows different routes the user can take to reach the final outcome of getting to the ride share section within the app. This gives the designer a perspective on what to consider while designing.

## 8-Ups (2nd Round)

The team repeated the process of 8-Ups after sharing the first round results.

**\$15**

8-Ups brought about different points of view on how the application would function and details about the screens presented to the user. Ideas that stood out was the representation of on campus maps and representation of nearby activities.

UI Guidelines:



## Sprint #2: Divergence & Convergence

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### Design & Style Guide: Shneiderman

1. **Strive for consistency.** There will be consistent actions and terminologies throughout the screens. For example, the Menu icon will always be present and consistent in all screens.
2. **Cater to universal usability.** The app will be designed for both first time users (beginners) to frequent users (expert). We will allow users to customize their main dashboard to their favorite actions while providing default actions for beginners. Icons may be accompanied with labels/explanations.
3. **Offer informative feedback.** Feedback mechanisms that will be implemented in the app can be as simple as highlighting a selection or a dialog box informing a user of a setting he just set up.
4. **Design task-flows to yield closure.** One use case of the Executive Weekend App is the ability to ride share with nearby students to save commute expenses. This process includes entering source and destination, searching for nearby students, selecting a ride-share group and confirming ride-share details. This entire process can be displayed on the screen with steps to show task-flow, and automatically going back to main menu to signal completion of task.

\$15

This idea gets \$15 because this assures that we follow universal standards of design, not only by what specific user wants but humans-users in general.

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14 Design & Style Guide (Shneiderman)

15 Design & Style Guide (Shneiderman)

16 Wireframes

17 Wireframes

18 Wireframes

19 Design & Style Guide

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### Design & Style Guide: Shneiderman

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## Design & Style Guide (continuation)

5. **Prevent errors.** The app will be designed to prevent invalid user inputs and properly showing user-friendly error messages if unexpected issues arise.
6. **Permit easy reversal of actions.** There will be back or cancel buttons to allow for reversal of individual actions. The users will, however, always have a choice to start over if they so desire.
7. **Make users feel *they* are in control.** A feature of the app includes the ability to snooze or reschedule reminders for class or other activities. The users will be the initiators of actions, not responders. The app also ensures that user confirmation is taken at every step and gives options to cancel all actions.
8. **Minimize short-term memory load.** The short term memory of a human can only hold 5 items at a given time. The app will be designed so multi-page actions can be consolidated to up to 5 screens only. For example, nearby restaurant search results can be up to 5 items on first load (but this can be configurable).

\$5

The UI or Design Guidelines are very important to keep user needs and limitations in mind. Ideas such as presence of a back button, ability to snooze reminders, and proper error messages are essential.

## Wireframes:

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## Wireframes

Home Screen

Student Login Page

\$20

Wireframes are great starting points to put together elements, before the actual paper prototyping. Here we already have a picture in mind of what users would like to see before prototyping "polishes" the idea.

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13 + \$15 For Student Visit Page - Wireframe

14 This has been allotted \$15 because this gives a good picture of what the student would try to achieve by using this app.

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## Wireframes

### Planning Student Visit Page

### Ride Sharing

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## Wireframes

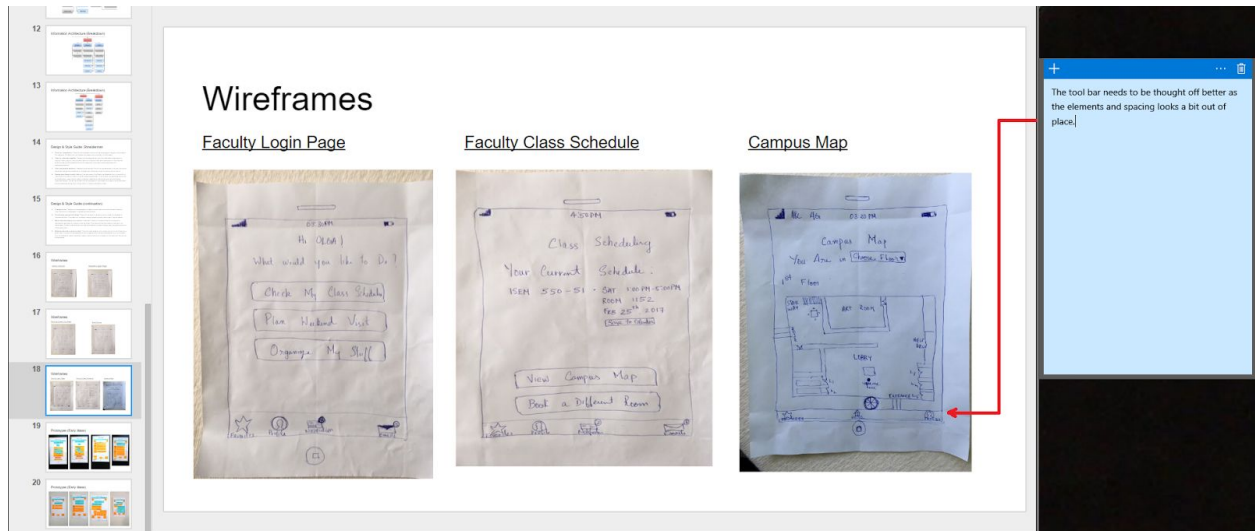
### Faculty Login Page

### Faculty Class Schedule

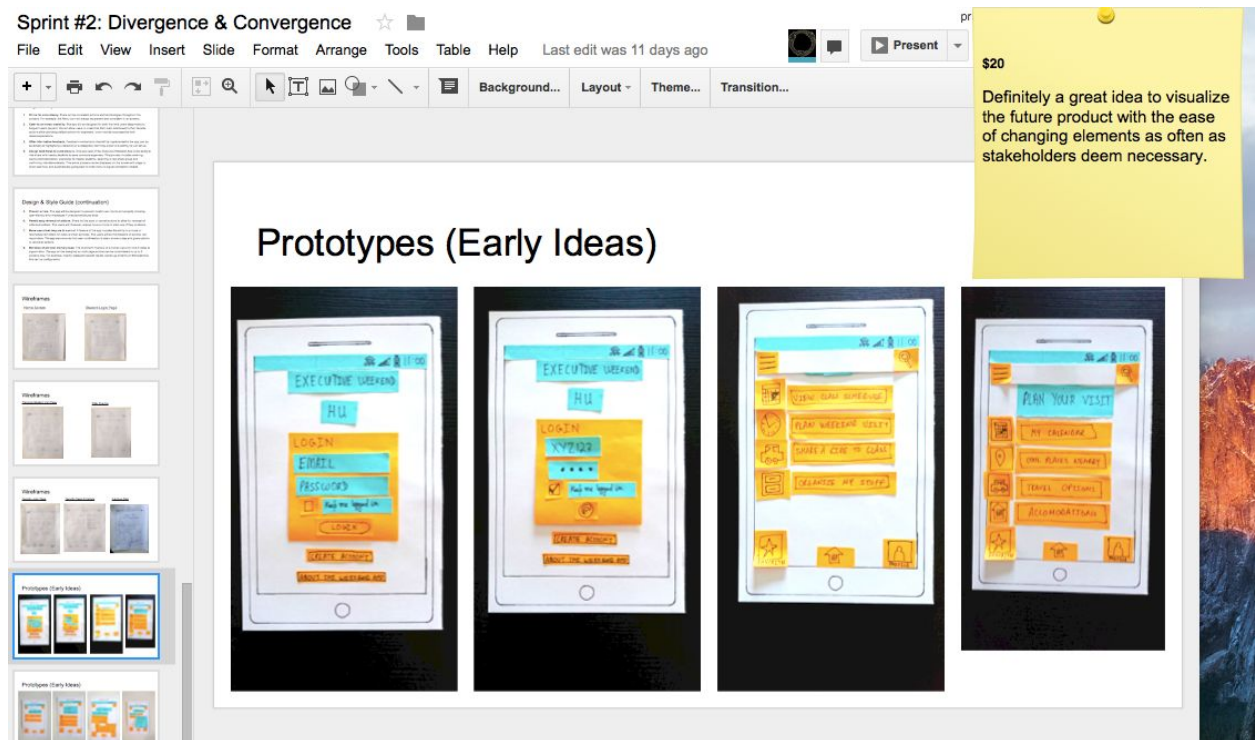
### Campus Map

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Wireframes are essential for deciding proper positioning and overall layout of elements and for bringing up important details such as the need for a persistent toolbar.

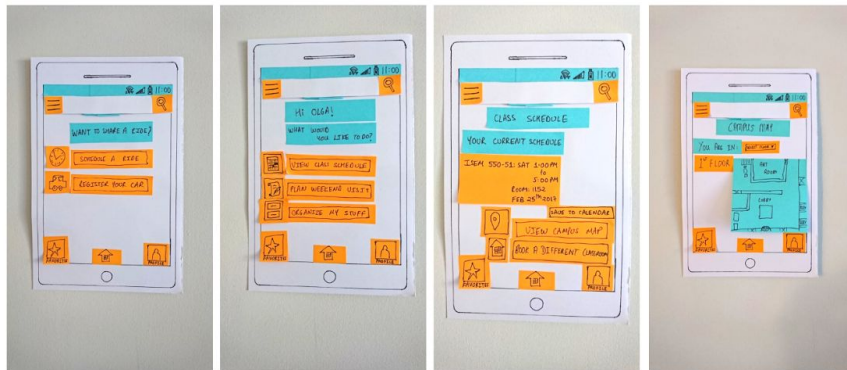


## Prototypes:





## Prototypes (Early Ideas)



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The Prototype elements need to accurately describe their functions, such as the ideas to use the calendar icon for schedules, a file drawer for organizing 'my stuff', etc.



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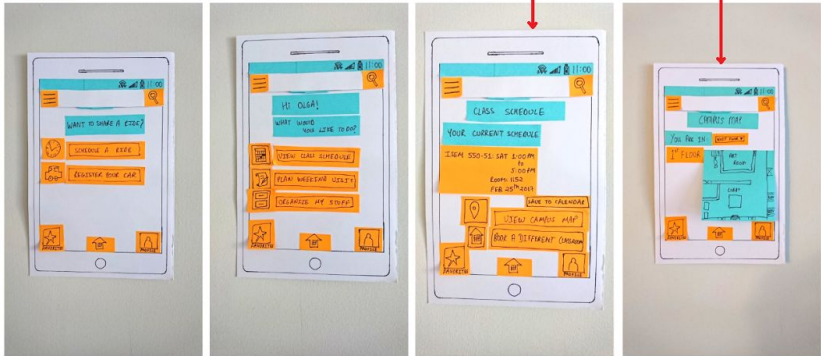
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# Prototypes (Early Ideas)



Four smartphone prototypes are shown, each with a different screen layout created using sticky notes. The layouts represent different stages of design exploration for a mobile application. The first prototype shows a simple list of items. The second adds more detail and icons. The third introduces a calendar view. The fourth shows a more complex interface with multiple sections and icons.

Prototype elements need to be resized as the layout feels awkward. Some buttons feel awkward as well.

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\$20 For Student Visit Page - Prototype

Very nice early prototype idea using the different coloured papers for designing the view. Gives clarity on what the designer is trying to create.



Four smartphone prototypes are shown, each with a different screen layout created using sticky notes. The layouts represent different stages of design exploration for a mobile application. The first prototype shows a simple list of items. The second adds more detail and icons. The third introduces a calendar view. The fourth shows a more complex interface with multiple sections and icons.