Software Prototype Evaluation

CS 345-346

Calendar Application

Group 13

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1 Prototype Overview

- We created a **medium fidelity, vertical prototype** using Figma. After opening the Figma link below, click on the "Present" button (Play Icon Button) on top right corner.

- In order to view the interactions possible in our prototype please visit : [Figma](#)

- Alternatively, you may view the following video to view the interactions possible : [Prototype Video](#)

2 Evaluation Details

- We performed **expert evaluation** using the **cognitive walkthrough** technique. The evaluation team consisted of all 4 members of this group.

- The medium fidelity, vertical prototype was used in by the evaluation team. The vertical prototype is capable of supporting the following tasks:

  1. Select Month, Day
  2. Create a reminder
  3. Edit a reminder
  4. Delete a reminder
  5. Set/Reset Background
  6. Display the various views of events namely Timetable view, Deadline view and Meeting view

- **3 Task scenarios** were formulated keeping in mind that the app is meant mainly for college students. These tasks are most likely to be performed regularly by college students. The tasks used for evaluation are:

  1. Set background theme
  2. Open timetable view
  3. Edit a reminder

- For each of the above mentioned tasks, a set of questions related to possible usability issues was framed. Additionally, some general usability questions were framed that the evaluators answered after having completed all tasks and viewed the entire vertical prototype.

- Each evaluator provided detailed answers to these questions which comprises the evaluation report.

- At last, all points and issues raised in the individual reports were combined to produce a **final report summary**. The summary offers a broader picture of the overall usability of the app.

3 Task Descriptions

3.1 Task 1: Change the Background Theme of the app

3.1.1 Task Scenario

The current theme of the app is consists mainly of light orange and white hues. You wish to change the background theme of the app to a slightly different theme, preferably something darker with a purple shade.

3.1.2 Interface Level Tasks

- On the front page click on the "Set Background" button on top-left corner

- Now choose the way, how you want to select the image (either Gallery or URL)

- Locate the Upload or Search button as per the way of selecting image and click it

- Now find the Set Theme button to apply the new theme

3.1.3 Questions for Task 1: (Usability Issues)

1. Are you satisfied with the look of the app with the theme you selected?

2. Were you able to easily find the option to upload an image?

3. Did you understand how to use an online image as background?

4. Did you try to revert back to the previous theme? Is there an option to reset the theme clearly visible?

3.2 Task 2: Open Timetable view of the current week

3.2.1 Task Scenario

You are planning to audit a course that has classes from 2:00 PM to 3:00 PM on Tuesday and Wednesday. However, you are ensure if you it will be possible to audit the course as you might have classes during that time for other courses. Using the app, you wish to find out if your timetable has any other classes during that time slot for other courses.

3.2.2 Interface Level Tasks

- Navigate to the month in which the week is located by clicking on it in front page

- Now click on the day of the week for which you want to view

- Locate the Views button on top-right corner and click it

- A popup appears, click on the Timetable View

3.2.3   Questions for Task 2: (Usability Issues)

1. Were you able to locate the option to change views?

2. Did the layout of the timetable help you?

3. Are the classes in a day arranged in an order you find easy to understand?

4. Were the changes on the screen upon clicking the view button indicative of the function being performed?

5. If you accidentally clicked the wrong month, was there an option/mechanism to go back to the previous page?

3.3   Task 3: Edit a Reminder

3.3.1   Task Scenario

Your BTP supervisor had scheduled a meeting on 8th March 2022. However, due to some unforeseen commitments, your supervisor has resheduled the meeting to 11:00 AM for 45 mins, on the same day. You wish you edit the time in the reminder set for this event to 11:00 AM - 11:45 AM.

3.3.2   Interface Level Tasks

- Navigate to the month in which the given date is located by clicking on it in front page

- Click on the required day of the month and one can see the events of that day below

- Locate the reminder which you want to edit and click on the edit button beside it

- Now edit the details you want to change for the reminder like name, type, timings

- After editing click the Save Changes button below for changing successfully

3.3.3   Questions for Task 3: (Usability Issues):

1. If you accidentally clicked the wrong month or wrong day in the month, was there an option/mechanism to go back to the previous page to correct it?

2. Was the option to edit an event apparent?

3. Were you able to view the changes you made after saving?

4. Were you able to easily perform the edit?

3.4   General Usability Questions

1. How did you like the interface? Would you say it was aesthetic and minimal?

2. Was there any aspect of the interface that you found too hidden or not so apparent?

3. Did you find the colours used for various buttons consistent within the app and consistent with general conventions?

4. Were the names given to various buttons indicative of their action?

4 Evaluation Reports

The group members evaluated the prototype and inspected its usability. The reports provided by each member is given below along with a final report/summary that combines all the issues highlighted in each of the reports.

4.1 Vignesh

4.1.1 Task 1

1. Are you satisfied with the look of the app with the theme you selected?

    - Yes. I found the app **aesthetically pleasing** with the background of my choice. Moreover, all the text content was visible even after I chose a dark background, though the original theme of the app was light.

2. Were you able to easily find the option to upload an image?

    - Yes. The opening page itself contained the option to change background. I chose the option to upload an image from the gallery. The **progress bar helped** me know when the upload process was complete.

3. Did you understand how to use an online image as background?

    - Yes. There are **radio buttons** on each of the possible ways to upload an image - from the gallery or from a URL. We need to select the radio button and then upload the image/URL. In case of an online image, a URL has to be typed.

4. Did you try to revert back to the previous theme? Is there an option to reset the theme clearly visible?

    - No. I didn't wish to revert to the old theme. However, I did notice the option to "Reset Theme" was **clearly present** in the same set background page. Upon clicking this button, the theme went back to the original one.

4.1.2 Task 2

1. Were you able to locate the option to change views?

    - Yes. After clicking on the required month, the button "Views" was **clearly visible** on the top right corner. On clicking this button, a drop down list appeared with the various possible views.

2. Did the layout of the timetable help you?

    - The layout of the timetable **wasn't in the conventional table form**. However, I found the timetable view very **helpful**. It quickly summarised all the classes I have for the selected month in a day wise manner.

3. Are the classes in a day arranged in an order you find easy to understand?

    - Yes, classes are arranged day wise along with information on the timings of each class. Within each day, the classes are sorted according to their timings. I found this ordering **easy to understand** and accomplish the given task of finding out that I do have a free slot from 2 PM to 3 PM on Tuesdays and Wednesdays.

4. Were the changes on the screen upon clicking the view button indicative of the function being performed?

- Yes. As soon as the timetable view button was selected, the screen changed. The calendar was no longer displayed, rather the set of classes was shown.

5. If you accidentally clicked the wrong month, was there an option/mechanism to go back to the previous page?

- There was a "Back" button located at the **top left corner** of the page. If I clicked the wrong month, I could click the Back button and reselect the correct month that I want.

4.1.3 Task 3

1. If you accidentally clicked the wrong month or wrong day in the month, was there an option/mechanism to go back to the previous page to correct it?

- Like in the other pages there was a back option on the top left corner. This was effectively an undo button for such errors. Most pages of the app had the back button **located at the same position**, hence it was easy to spot it.

2. Was the option to edit an event apparent?

- Yes. Every event had a button for "Edit" along with an easily understandable icon.

3. Were you able to view the changes you made after saving?

- After clicking the "Save Changes" button, the changes made were visible. Also, the edited reminder was **lightly outlined** for a short period. This let me know that the desired action had been performed.

4. Were you able to easily perform the edit?

- Yes. Upon clicking the edit button, options to edit each and every field of an event were visible. Appropriate changes could easily be made.

4.1.4 General Usability Questions

1. How did you like the interface? Would you say it was aesthetic and minimal?

- Yes. The interface was **simple** enough to be easily understood for a first time user and also allowed the commonly used tasks for a calendar to be performed. Most possible interactions were **evident** with **good placement** and use of buttons. However, I felt that the buttons like "Back" and "Views" can have a background fill/shape to **better emphasise** that they are buttons and not plain text.

2. Was there any aspect of the interface that you found too hidden or not so apparent?

- In general, I found all the aspects very **apparent**. The "Create Reminder" button is accessible only after we select a month of some year. I think it should have been available on the opening page as well, so that one can quickly create a reminder as soon as the app opens.

3. Did you find the colours used for various buttons consistent within the app and consistent with general conventions?

- Yes. Throughout the app an **orange theme** has been **followed**. Most buttons follow this orange theme. Some specific buttons like "Delete", "Set Theme" are in red and green respectively which is **consistent** with **general conventions** followed in other apps as well.

4. Were the names given to various buttons indicative of their action?

- Yes. The names given to buttons are **easily understandable**. However the views button was a bit different. I had to explore the functionality to actually understand what it means and does.

4.2 Lokesh

4.2.1 Task 1

1. Are you satisfied with the look of the app with the theme you selected?

- The image I wanted to be made background has been made the theme of the app. But I found the image theme could be **distorted slightly** due to size and quality issues of the pic.

2. Were you able to easily find the option to upload an image?

- Yes, there were two options to upload the image **clearly**, big orange buttons one for directly uploading from phone gallery or from online using the URL

3. Did you understand how to use an online image as background?

- Yes there is an option to select an image by providing an URL of the image from online.

4. Did you try to revert back to the previous theme? Is there an option to reset the theme clearly visible?

- Beside the set theme green option, there was a reset theme option to revert the changes.

4.2.2 Task 2

1. Were you able to locate the option to change views?

- I **couldn't find** the views option **instantly** the first time. In the front page (years view) I couldn't find the views option, but after clicking a particular month I found a views option top right-corner.

2. Did the layout of the timetable help you?

- Yes, as the classes timings repeat every week, showing the timetable view for all 7 days at a time **gives proper idea** of the timetable of class and lectures

3. Are the classes in a day arranged in an order you find easy to understand?

- Yes. I found the lectures ordered from morning to evening for the particular day.

4. Were the changes on the screen upon clicking the view button indicative of the function being performed?

- On clicking the view button a popup appears showing the various views of events available, on hovering to the required view there was change and on clicking it, the required view page appeared.

5. If you accidentally clicked the wrong month, was there an option/mechanism to go back to the previous page?

   - Yes, there was a "back" option (on top-left corner) to go back to the previous page to change the month.

4.2.3 Task 3

1. If you accidentally clicked the wrong month or wrong day in the month, was there an option/mechanism to go back to the previous page to correct it?

   - There were **back options in various pages**, which on clicking takes back to the previous page which helps in undoing any error made.

2. Was the option to edit an event apparent?

   - Beside the events there was a **small icon depicting edit**. On seeing it for the first time as the description was **too small**, I couldn't see it very easily the first time, later on using it multiple times it became easy.

3. Were you able to view the changes you made after saving?

   - Yes after applying changes, the meeting details got updated and showed the changes on screen.

4. Were you able to easily perform the edit?

   - On clicking the edit option, there were options provided to edit the entire details of the event which I felt were easy **without** any **sophisticated moves** and **pretty straightforward**.

4.2.4 General Usability Questions

1. How did you like the interface? Would you say it was aesthetic and minimal?

   - Yes the interface was **aesthetically appealing** and was upto the point for general functions in a calendar application.

2. Was there any aspect of the interface that you found too hidden or not so apparent?

   - Views option and create reminder option **were not very easily found** at the start as they were not present in the first page. But after clicking on a particular month, both these were **easily visible**.

3. Did you find the colours used for various buttons consistent within the app and consistent with general conventions?

   - Yes, I found the colours fitting the various buttons **consistent** within the app and consistent with **general conventions**, for example delete button was red, wherever the delete was present it was red showing internal consistency.

4. Were the names given to various buttons indicative of their action?

- There were captions or descriptions for every button, but sometimes the **font felt very small** and also in the case of yellow buttons with white captions in that it is **not visible clearly**. Other than that names given for buttons were **indicative** of the actions and pretty **consistent**.

4.3 Shreyansh

4.3.1 Task 1

1. Are you satisfied with the look of the app with the theme you selected?

   - Yes the theme got placed on the screen almost in the same way I wanted it to appear. The default light theme was also **pretty nice**.

2. Were you able to easily find the option to upload an image?

   - Yes the button to change background was clearly visible on **top left corner** due to the settings **symbol**. Upload an image was the first option selected using the radio button.

3. Did you understand how to use an online image as background?

   - I did see the option to upload image from URL but I didn't use it as I already had the image in my gallery. In order to use an online image, one has to first select the radio button and then type the link.

4. Did you try to revert back to the previous theme? Is there an option to reset the theme clearly visible?

   - Although I didn't want to revert back to the previous theme, I did notice that within the Set Background page, a Reset Theme button is also present. It's **placement** right next to the Set Theme button suggests that it lets us go back to the old theme.

4.3.2 Task 2

1. Were you able to locate the option to change views?

   - Yes. This was located in the bar on top of the app towards towards the right side. Since there were only two buttons on the bar, it was **relatively easy to locate** the option.

2. Did the layout of the timetable help you?

   - Yes. It did help me as I was able to see all my classes on the **same page** and **easily figure out** if any two of my classes will collide.

3. Are the classes in a day arranged in an order you find easy to understand?

   - Yes the classes were ordered according to their **start time** in a day.

4. Were the changes on the screen upon clicking the view button indicative of the function being performed?

   - As soon as I clicked the timetable view, I was able to see all the classes of the week. So yes the changes were indicative.

5. If you accidentally clicked the wrong month, was there an option/mechanism to go back to the previous page?

   • Yes, a **back button** was **clearly visible** on the top left corner of the screen. Upon clicking this button, I was taken to the previous page and could select the month again.

4.3.3 Task 3

1. If you accidentally clicked the wrong month or wrong day in the month, was there an option/mechanism to go back to the previous page to correct it?

   • Yes. The option to go back was present in top left corner. I have seen this option being placed at the **same location** in many of the **other apps** I use and hence I was easily able to spot it.

2. Was the option to edit an event apparent?

   • Though the text written on the button was a **bit small** I was **easily able to identify** the button due to its **symbol**.

3. Were you able to view the changes you made after saving?

   • Yes the changes were visible and the details of the event changed as soon as I pressed save changes button.

4. Were you able to easily perform the edit?

   • Yes, I felt that performing the editing of event was **fairly simple** and **straight forward** task.

4.3.4 General Usability Questions

1. How did you like the interface? Would you say it was aesthetic and minimal?

   • Except for the timetable view, the interface looked **aesthetic** and **minimal**. I found it **easy to navigate** through all sections of app as well. However, timetable view felt a bit **congested** in case when there were many classes.

2. Was there any aspect of the interface that you found too hidden or not so apparent?

   • At first I didn't noticed that we can view all the events of the particular date by clicking on it in month view. I was able to go that only when I accidentally clicked on a date. I think this particular interaction **could be made more apparent**.

3. Did you find the colours used for various buttons **consistent** within the app and consistent with general conventions?

   • Yes, the colors where consistent throughout the app. Though sometimes it felt like there was a bit **too much of red color**.

4. Were the names given to various buttons indicative of their action?

   • Yes the given names to various buttons were indicative of their actions but in some cases like that of edit or delete the names written were **too small**.

4.4 Tanay

4.4.1 Task 1

1. Are you satisfied with the look of the app with the theme you selected?

   - The look of app after theme selection was **appreciative**.The **progress bar** clearly indicated the data of image uploaded in percentage which made me less anxious due to my slow internet.

2. Were you able to easily find the option to upload an image?

   - The icon to upload image **caught my eye** instantly as it is the globally accepted **conventional icon** for uploading. Then the text made it clear that it was the button to upload image.

3. Did you understand how to use an online image as background?

   - It **wasn't clear at first** if the URL would be taken automatically by "search image" button or we have to manually put the URL. Then, I noticed that the text field asked for Image "link" and realised that a URL had to be used.

4. Did you try to revert back to the previous theme? Is there an option to reset the theme clearly visible?

   - The "reset theme" button was **clearly visible** in red color. Clicking it, reverted the theme to default.

4.4.2 Task 2

1. Were you able to locate the option to change views?

   - It **wasn't clear** at first how to find the views option. But after clicking the month in year view, it was **clearly visible** at the top right corner. A pop-up appeared on clicking it which displayed all the available views.

2. Did the layout of the timetable help you?

   - Yes, the layout was **helpful** as events of each day were displayed in **systematic order** with heading and time of event clearly mentioned. This layout **suits well** with weekly repetitive model of classes.

3. Are the classes in a day arranged in an order you find easy to understand?

   - Yes, the classes were arranged in ascending order of timings for each day. Start and end time of each class was clearly mentioned.

4. Were the changes on the screen upon clicking the view button indicative of the function being performed?

   - The transition from calendar screen to timetable was **clearly indicative** as instead of the previously displayed calendar, a list of daily classes was shown. The heading of screen was "Timetable" indicating desired function was **performed successfully**.

5. If you accidentally clicked the wrong month, was there an option/mechanism to go back to the previous page?

- The "back" button was **clearly** visible at the top left corner with an icon indicating going back. This allowed to go back to previous screen and undo incorrect action.

4.4.3 Task 3

1. If you accidentally clicked the wrong month or wrong day in the month, was there an option/mechanism to go back to the previous page to correct it?

   - Yes, like the previously mentioned page, these pages also had a back button at top left corner (maintaining internal consistency) to undo incorrect changes.

2. Was the option to edit an event apparent?

   - Though the icon for edit was visible clearly, the text was **not so apparent**. The ratio of sizes of icon and text could be improved.

3. Were you able to view the changes you made after saving?

   - Yes, after making the changes I clicked on "save changes" button which took me to calendar view and the edited event was **slightly highlighted** with updated changes.

4. Were you able to easily perform the edit?

   - On clicking edit button, all details of the event were displayed in a form and all the fields were **easily editable**. All the actions were **self explanatory** with a smooth workflow.

4.4.4 General Usability Questions

1. How did you like the interface? Would you say it was aesthetic and minimal?

   - The interface had a **satisfying** appeal to it. Despite being **simple** and **spacious**, it supports all the basic functionalities of a calendar app. The smooth and self explanatory workflow with buttons to revert back changes at all steps makes it very **easy to use** even for novice users. Icon to text size ratio of some buttons like edit was too high.

2. Was there any aspect of the interface that you found too hidden or not so apparent?

   - The views options could only be accessed after clicking on the month and there was **no indication on first page.** Hence I found it not so apparent.

3. Did you find the colours used for various buttons consistent within the app and consistent with general conventions?

   - Colors used throughout the application interface were **internally** as well as **externally consistent** like the delete button was always red following external consistency. Back button was always present on top left corner and **each event type** had a **specific color** showing internal consistency.

4. Were the names given to various buttons indicative of their action?

   - Except views button and search image button I found the meaning of all buttons **clearly indicative** of their actions. To understand the purpose of above two mentioned buttons I had to click and check their functionality.

5   Final Report

The final summary and compilation of the reports given by the members is summarised here.

- All the evaluators gave **generally positive** feedback and were **able to accomplish the task** scenarios created with ease.

- For most pages of the design, the evaluators found it **aesthetic**, **minimal** and **easy to navigate**, but in the case timetable view it **felt congested** in case of large number of classes.

- All evaluators agreed that both the **internal and external consistencies were maintained** throughout the app. For example, all delete buttons were red (external consistency) and each event had different colour which was followed consistently throughout the app (internal consistency).

- The **button labels were indicative** of the function they performed but in the case of "Search By Image" and "Views" they were not intuitive. Most buttons were **easily accessible** however the "View" and "Create Reminder" were not present in the front page. This caused **minor inconvenience** to some evaluators as they kept searching for them in the front page.

- The evaluators felt **they were in control** of the app due to the **feedback provided** as there was progress bar showing how much the image was uploaded. Also the transitions between the pages were **smooth and swift**.

- **Easily noticeable** "Back" option was present in the top-left corner, which helped the evaluators in correcting the errors if made.

- Most evaluators found change background option **easy to use** and **pleasing**, however one evaluator felt due to size of the image, the background theme **could be distorted**. A possible solution this could be to include an option to **edit the image** after uploading.