**National University of Computer and Emerging Sciences**

# HUMAN COMPUTER INTERACTION (HCI)

# "Deliverable 2: Define and Ideate"

| STUDENT'S NAME | | ROLL NO: |
|---|---|---|
| DANIYAL KHAN | | 20I-1847 |
| ALI HAMZA | | 20I-1881 |
| EHSAN RASUL | | 20I-1812 |

**Class:** SE
**Section:** P
**SUBJECT NAME:** HCI
**DATE OF SUBMISSION:** December 6, 2021
**SUBMITTED TO:** Sir Bilal Khalid Dar

# DEFINE

## Problem Statement:

"A stitch in time solves nine". Being punctual, not missing out tasks and managing your workload efficiently is very crucial yet difficult. Most know that time and tide wait for none yet still fail to be punctual. Sometimes forgetting to set reminders about tasks and sometimes missing out reminders, sometimes rallies cause roadblocks and closure of internet services, and last but not the least, sometimes battery dies. These problems seem small, but affects out timetable significantly.

Different methods are available to solve these problems, but perhaps the best method is to have an assistant guiding you about your activities, reminding you of upcoming, missed and unscheduled tasks, guiding you of the best route having least traffic and incase Roadblocks and lastly, reminding you to charge your equipment's batteries so that you don't miss out important updates.

## Project Scope (Do's and Don'ts):

| Do's | Don'ts |
|---|---|
| The system will give reminders of: <br>• the pending payments to the user. (e.g., Bills) <br>• Missed Classes <br>• Scheduled and unscheduled events <br>• Priority Emails <br>• Drinking water and taking meals on time <br>• Your physical activity (total steps walked etc.) | The system will not automatically pay the bills. |

| | |
|---|---|
| The system will display the available slots from the university timetable to the user. | The system will not automatically reschedule classes. |
| The system will give remind the user of the new releases of games / songs. | The system will not automatically download games / songs. |
| The system will be able to get best route towards the destination from Google Maps and display it while travelling. | The system will not automatically start navigation for the best route. |
| The system will give a pre reminder for any scheduled meeting. | The system will not automatically set time for the pre reminder. |
| The system will remind the user to specify time for unscheduled meetings. | The system will not automatically schedule the meetings. |
| | The system will not give alerts on weekends. |

# User Stories:

## 1. University Timings:

| Story |
|---|
| As a user I want to get notifications about university timings, so that I can be on time. |
| **Acceptance Criteria** |
| 1. The system will display the schedule of the classes in the form of dropdown notification. <br> 2. An alarm will go off before the time specified by the user to notify about the timetable. (e.g., remind me 2 hours prior to the class time) <br> 3. If the phone is switched off, then the assistant shall email the user about university timetable on the mail provided by the user. <br> 4. If the phone's battery is very low, then the app shall automatically display the current day's schedule to avoid lateness. |

## 2.  Meetings:

| Story |
| --- |
| As a user I want to get reminders about the scheduled, unscheduled meetings before time, so that I can avoid forgetting. |

| Acceptance Criteria |
| --- |
| 1. The system will display the schedule of the scheduled and unscheduled meetings in the form of dropdown notification.<br>2. An alarm will go off before the time specified by the user to notify about the scheduled meeting.<br>3. The application will notify user at the start of the day i.e., 8 a.m. (default, the user can change it) about unscheduled meetings so that user may schedule it.<br>4. If the phone is switched off, then the assistant shall email the user about meetings on the mail provided by the user.<br>5. If the phone's battery is very low, then the app shall automatically display the current day's meetings to avoid lateness. |

## 3. <u>Tasks Updates:</u>

| Story |
| --- |
| As a user I want to automate updating of tasks, so that I need not to worry about missed tasks. |

| Acceptance Criteria |
| --- |
| 1. After the time of meeting, the application will ask the user whether or not he has attended the meeting or not.<br>2. If not, then the task would move to the missed category. Else if the user marks the task as done, then the task would be automatically marked as done and removed from the schedule.<br>3. If the phone is switched off, then the application would mail the user about the task whether or not he has performed the task and then will repeat point 2. |

## 4. Missed classes:

| Story |
| --- |
| As a user I want to get information about available slots from the university timetable, so that I can reschedule missed classes. |

| Acceptance Criteria |
| --- |
| 1. The system will display the available slots in the form of dropdown notification at the start of the day i.e., 8.a.m.(by default)<br>2. If the phone is switched off, then the assistant shall email the user about available slots on the mail provided by the user. |

## 5. Music and games releases:

| Story |
| --- |
| As a user I want to get updates about the new releases of games, so that I can download and play. |

| Acceptance Criteria |
| --- |
| 1. The application will display the new releases of games and music in the form of dropdown notification whenever they are released. (Genre specified by the user)<br>2. The application will also send emails about trending music on the mail provided by the user. (This option is not enabled by default) |

## 6. Travel guide:

| Story |
|---|
| As a user I want to get noticed about the best route to my destination so that I can avoid traffic rush. |

| Acceptance Criteria |
|---|
| 1. The application will remind the user of best route to university before the start of the day by a dropdown notification. |

## 7. <u>Bill payments:</u>

| Story |
|---|
| As a user I want to get reminders about my bill payments so that I can pay them on time to avoid any inconvenience. |

| Acceptance Criteria |
|---|
| 1. The system will remind the user at the start of the month about pending payments and bills in the form of dropdown notifications |
| 2. The system will also keep on reminding the user everyday 3 days before due date of any bill. |
| 3. The application will also send emails about pending bills on the mail provided by the user. (This option is enabled by default) |

## 8. <u>Meals and water:</u>

| Story |
|---|
| As a user I want to get alerts about meal timings and water intake, so that I can be healthy. |

| Acceptance Criteria |
|---|
| 1. The system will remind the user in the form of dropdown notifications about intake of water.<br>2. The application will also remind the user about meals on meal timings specified by the user. |

## 9. <u>Alarms:</u>

| Story |
|---|
| As a user I want to automate setting of alarms for my working days so that I can wake up early. |

| Acceptance Criteria |
|---|
| 1. The system will fetch the timetable data of university provided by the user and incase user forgets to set an alarm; the system will remind the user to set an alarm.<br>2. In case the user misses the alert, The system will remind (alert) the user about upcoming Class based on previous schedule. |

## 10.  <u>Priority Meetings:</u>

| Story |
|---|

As a user I want to get reminders for setting the meetings with the instructors so that I can avoid missing the important meetings.

## Acceptance Criteria

1. The system will display the scheduled meetings in the form of dropdown notification.
2. An alarm will go off before the time specified by the user to notify about the scheduled meeting.
3. The application will notify user at the start of the day i.e., 8 a.m. (default, the user can change it) about priority meetings so that user may not miss it.
4. If the phone is switched off, then the assistant shall email the user about priority meetings on the mail provided by the user.
5. If the phone's battery is very low, then the app shall automatically display the current day's meetings to avoid lateness.

# IDEATE

| Problem | Ideas | What ifs | Crowd Storming |
|---|---|---|---|
| There is usually much time gap between the classes / meetings. Sometimes I forget to take classes / attend meetings. | Idea 1: an app that reminds the user after his every class whether he / she has the next class or not.<br><br>Idea 2: an app that reminds the user before a class that he / she has a class at the specified time.<br><br>Idea 3: an app that reminds the user at the start of every day that he / she has specified number of classes on that day. | What if the user forgets even after the reminder because of huge amount of time left for the class?<br><br>What if the user leaves for his home straightaway after the first class?<br><br>What if the user forgets the number of classes to take during the day? | We asked different users of the system and 80 % people voted in the favor of idea 1. |
| I have to travel a lot in order to reach my office so sometimes I get late because of the huge amount of traffic. | Idea1: an app that automatically gets best route to the office every morning and displays the route and time taken to reach the office.<br><br>Idea 2: an app that displays the best route towards the office whenever the user gives command.<br><br>Idea 3: an app that notifies the user that which routes will be | What if best route change at the time of arrival?<br><br>What if the user forgets to check for the best route?<br><br>What if the other routes are also busy | We asked Different users of the system and 70 % result was in favor of idea 3 |

| | | | |
|---|---|---|---|
| | blocked on a specific date. | on that day because of huge traffic? | |
| Sometimes I forget to set reminders for my schedule. | Idea 1: an app that give alerts to the user based on the same routine he had on the same day of previous week.<br><br>Idea 2: an app that reminds the user to set reminders for the next day 20 minutes before the bedtime.<br><br>Idea 3: an app that reminds the user to set reminders for the whole week on weekend. | What if the timetable or routine is updated?<br><br>What if the next day is weekend?<br><br>What if his routine changes of and on? | We asked different users of the system and 80 % people voted in the favor of idea 3 |
| When a new update of a game is available, and I have not downloaded it, the system does not allow me to play with the previous version, as a result I have to download the new version of the game. The process is time consuming and wastes my leisure hours. | Idea 1: an app that gives notification whenever the new update is available.<br><br>Idea 2: an app that automatically downloads the new updates of the applications and games.<br><br>Idea 3: an app that displays the dialogue box asking whether the user wants to download the update of the application or not whenever an update is available. | What if the user misses the notification?<br><br>What if there is not enough storage for the download?<br><br>What if the user wants to delay the download but not cancel it? | We asked different users of the system and 90 % people voted in the favor of idea 1 |

| | | | |
|---|---|---|---|
| I used Cortana to manage my activities, but it drained a lot of battery. | Idea 1:  an app that doesn't not run in background but activates itself only at the time of reminders.<br><br>Idea 2: an app that avoids un-necessary notifications.<br><br>Idea 3:  an app that only uses internet services when necessary. | What if the RAM is full and the app doesn't load in the memory?<br><br>What if the user has not set priority / important notifications and turned off the rest?<br><br>What if the internet is not available at that time? | We asked different users of the system and 70 % people voted in the favor of 1. |