

# Cognitive Walkthrough

## SMART WARNING SYSTEM

(Project no.-9)

### Group members:

Abhishek Kumar- 160101007

Abhishek Ranjan- 160101008

Hemant Yadav- 160101034

Supervised by :

Prof. Samit Bhattacharya

## Users / Team Details:

The background of user used as evaluators are :

- 20 Years old, college students with limited prior experience with similar apps , and a rough idea of what the app might be. This type of user falls in the intermediate user category.

Tasks (including screenshots) for evaluation along with action sequences:

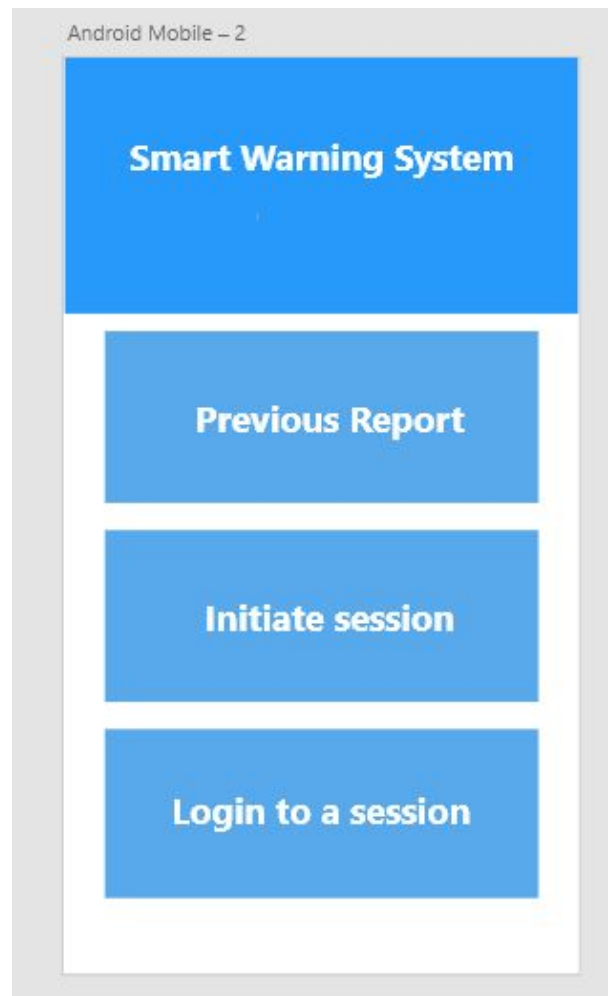
1. Access previous / current report - by student :

Description: The user (student) have to visit the previous report page by starting the android app and going through all the options.

Action Sequence:

1.

The user clicks on the app in his/her smart phone.( The app opens with a home screen and then a menu is displayed. )



# 2.

The user chooses to login into a session and fills the respective details.

Android Mobile - /

## ← Smart Warning System

Name

John Doe

Roll Number

160101008

Webmail ID

john.doe@iitg.ernet.in

Password

\*\*\*\*\*


Session ID

CS242\_070318\_11

Proceed

# 3.

After filling and clicking proceed button , user lands up with a current report page.

Smart Warning System 

Current State : Attentive

Your current Report :

Your state	last switch Time
9	11:08

View your previous Report :

Session ID

CS242\_080318\_12

Proceed

4.

Further clicking on the Proceed button under previous report option user can see his / her previous report.

Android Mobile - 20

← Session ID: CS242\_070318\_11

Student's Roll no. : 160101008

Session Id : CS242\_080318\_12

Previous State	Next State	Switching Time
9	3	12:02 PM
3	4	12:07 PM
4	8	12:10 PM
8	9	12:11 PM
9	10	12:12 PM

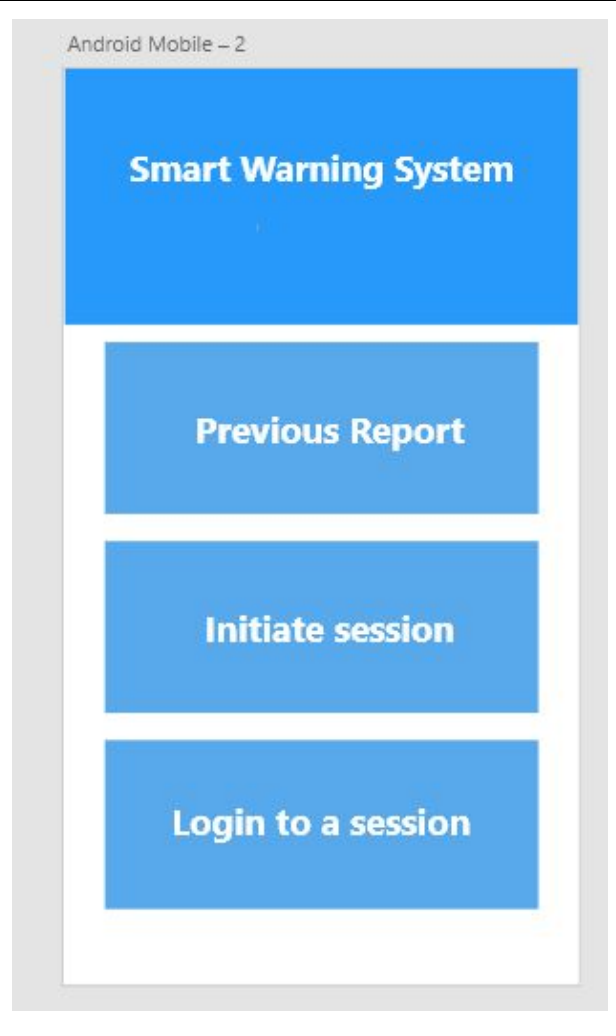
## 2. Action on a notification - by professor :

Description: The user(professor) have to start the app and then tap on the notification of the student to act on it.

Action Sequence:

1.

The user have to select the initiate session option from the main menu of the app.



# 2.

The user fills the respective details for initializing the session and then proceeds .

Android Mobile – 3

← Initiate Session

COURSE CODE

CS242

Professor Webmail

samit@iitg.ernet.in

Webmail Password

\*\*\*\*\*

7 digit PIN

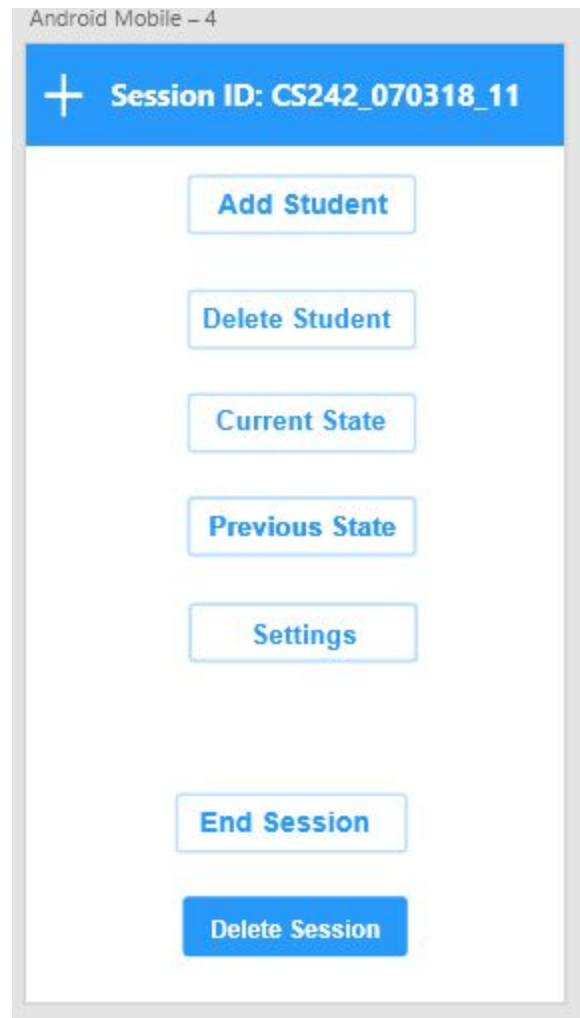
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→



# 3.

The sub menu appears after creating the session, through which the registered students could be managed and reports could be viewed.



4.

The current state option could be chosen to view the current reports of the session and the state change notifications.

Android Mobile – 11

← Session ID: CS242_070318_11		
Name	State	Notification
Student 1	4	Student 2 11:16 AM
Student 2	5	Student 9 11:20 AM
Student 3	4	Student 10 11:26 AM
Student 4	10	
Student 5	10	
Student 6	1	
Student 7	6	
Student 8	7	
Student 9	6	
Student 10	7	

Dissolve All Notification

5.

Tap on the notification to act on it, for each student or select dissolve all button for acting on all the notifications.

Android Mobile – 15

← Session ID: CS242_070318_11		
Name	State	Notification
Student 1	4	Student 2 11:16 AM
Student 2	5	
Student 3	4	
Student 4	10	
Student 5	10	
Student 6	1	
Student 7	6	
Student 8	8	
Student 9	6	
Student 10	7	
		Dissolve All Notification

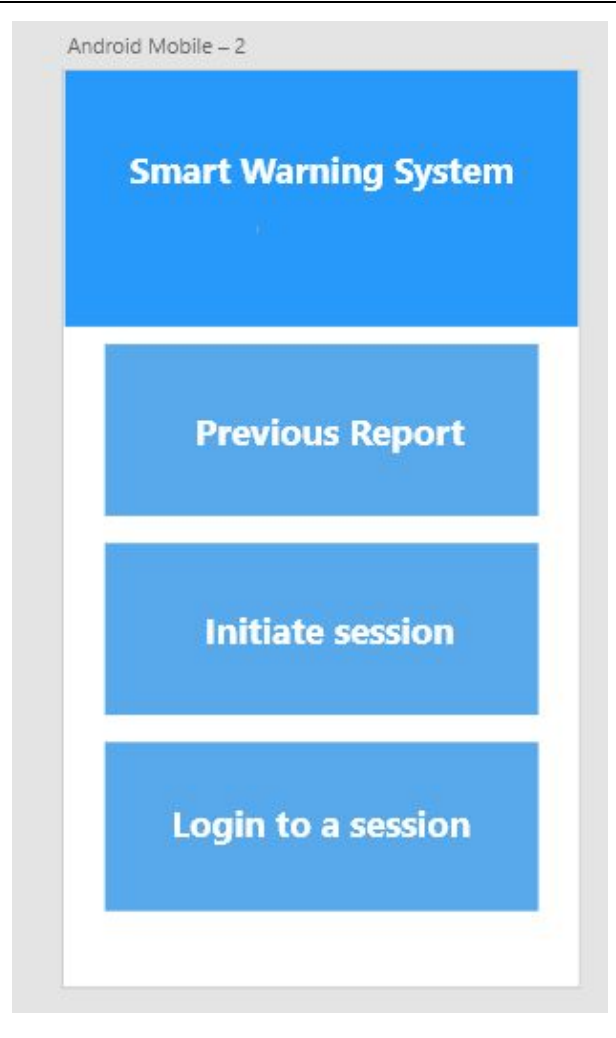
### 3. Access previous / current report of students - by professor :

Description: The user(professor) have to start the app and then access the current and previous reports of the students.

Action Sequence:

1.

The user have to select the initiate session option from the main menu of the app.



# 2.

Simply fill the details of the course code and other necessary details.

Android Mobile – 3

← Initiate Session

COURSE CODE

CS242

Professor Webmail

samit@iitg.ernet.in

Webmail Password

••••••••

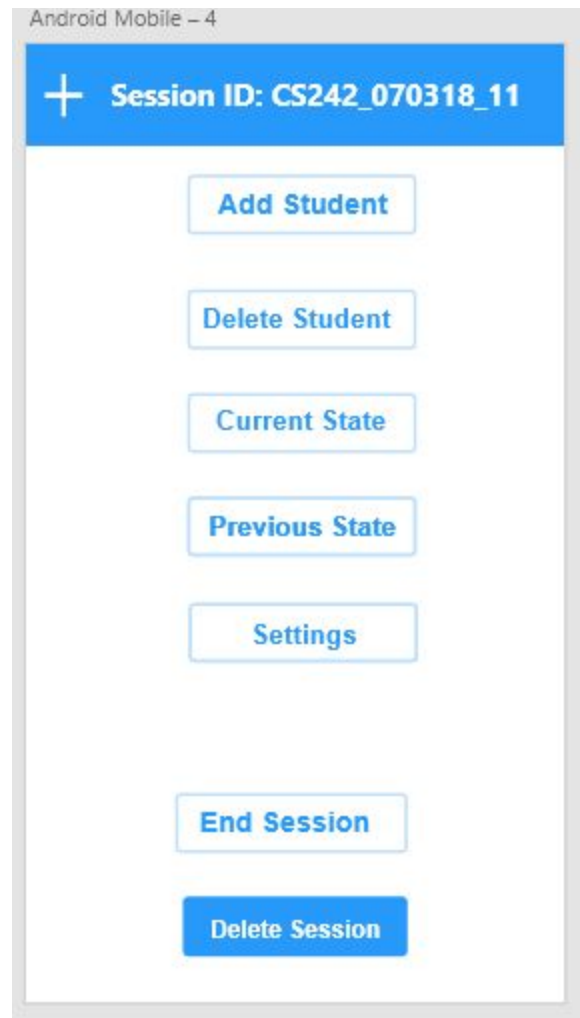
7 digit PIN

••••••••

→

# 3.

Select the current state or previous state button



4.

Select any student to view his previous report.

Android Mobile – 21



Session ID: CS242\_070318\_11

**Name**

**Roll No.**

**Student 1**

**160101004**

**Student 2**

**160101005**

**Student 3**

**160101014**

**Student 4**

**160101010**

**Student 5**

**160101001**

**Student 6**

**160101012**

**Student 7**

**160101006**

**Student 8**

**160101008**

**Student 9**

**160101057**

**Student 10**

**160101007**

5.

Report of the student is displayed  
for the whole session.

Android Studio - 20

← Session ID: CS242\_070318\_11

Student's Roll no. : 160101008

Session Id : CS242\_080318\_12

Previous State	Next State	Switching Time
9	3	12:02 PM
3	4	12:07 PM
4	8	12:10 PM
8	9	12:11 PM
9	10	12:12 PM

**Justification:**

The above tasks are representative because these would be most often tasks which would be used by the user of this application. These tasks are unique to this type of application.

The app has 2 types of user the student and the professor.



### **Questionnaire:**

Following 5 questions were used as questionnaire.

1. Did the user try to achieve the end goal or did he give up at the start itself?
2. Did the user notice that the correct action choices are available?  
Yes-Partly-No
3. Did the user confidently know that the choice being made by him/her is the right one? Yes-No
4. Did the user understand the feedback after every action? Yes-No
5. Did the user Complete the Task with satisfaction? Yes-Partly-No

### **Reports of individual team members:**

Task 1 : View report by student

Description of the step	Did the user try to achieve the end goal or did he give up at the start itself?	Did the user notice that the correct action choices are available ?	Did the user confidently know that the choice being made by him/her is the right one?	Did the user understand the feedback after every action?	Did the user Complete the Task with satisfaction?	Remarks
Intermediate	Yes	Yes	No	Yes	Yes	Good

## Task 2 : Act on notification

Description of the step	Did the user try to achieve the end goal or did he give up at the start itself?	Did the user notice that the correct action choices are available ?	Did the user confidently know that the choice being made by him/her is the right one?	Did the user understand the feedback after every action?	Did the user Complete the Task with satisfaction?	Remarks
Intermediate	Yes	Yes	Yes	Yes	Yes	Good

## Task 3 : View report by professor

Description of the step	Did the user try to achieve the end goal or did he give up at the start itself?	Did the user notice that the correct action choices are available ?	Did the user confidently know that the choice being made by him/her is the right one?	Did the user understand the feedback after every action?	Did the user Complete the Task with satisfaction?	Remarks
Intermediate	Yes	Yes	No	Yes	No	Average

### The reviews taken :

Student Name	Review
1. AAYUSH AGARWAL	<ul style="list-style-type: none"><li>● The value of the student state was a bit ambiguous.</li><li>● The back option over the current state of the user.</li><li>● Session name was not over the current report of the user.</li><li>● The uploaded file names , was difficult to understand.</li><li>● The 7 digit pin relevance was not understood</li></ul>
2. RAJAS BHADKE	<ul style="list-style-type: none"><li>● The exploration time took a bit long.</li><li>● Settings page was difficult to understand.</li><li>● Number of clicks were way more.</li><li>● In professor's task , previous report was difficult to understand.</li><li>● The 7 digit pin relevance was not understood.</li></ul>
3. ARPAN KONAR	<ul style="list-style-type: none"><li>● The 7 digit pin relevance was not understood.</li><li>● The PLUS signed button was ambiguous.</li><li>● After current report difficult to get out from the page.</li></ul>

4.HARSHIT SRIVASTAV	<ul style="list-style-type: none"> <li>• The 7 digit pin relevance was not understood.</li> <li>• Uploaded files was not understood.</li> <li>• The PLUS signed button was not understood after initiate session.</li> <li>• After current report difficult to get out from the page.</li> </ul>
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## Analysis & Inference

### TASK - 1 : Access previous / current report - by student

<b>Action in Sequence</b>	<b>System mismatch Question</b>	<b>Potential problem and design solution</b>
The user clicks on the app in his/her smartphone.	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action</li> </ul>	<p>Not much clear</p> <p>Almost confidently</p> <p>Responses are pretty clear</p> <p>Yes</p>

	Clear	
Login into a session	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p>
Current report page entry	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>Partially true</p> <p>Yes</p> <p>Yes</p> <p>No</p>
Pressing the Proceed button.	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp;</li> </ul>	<p>Partially</p> <p>Yes</p> <p>Yes</p>

	interpretable <ul style="list-style-type: none"> <li>Is the end of the system action Clear</li> </ul>	No
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## **TASK - 2 : Action on a notification - by professor**

<b>Action in Sequence</b>	<b>System mismatch Question</b>	<b>Potential problem and design solution</b>
Initiate session	<ul style="list-style-type: none"> <li>Is it clear to the user that system has taken input</li> <li>Can the user resume control for the next action.</li> <li>Are the systems response visible &amp; interpretable</li> <li>Is the end of the system action Clear</li> </ul>	Partially  Yes  Yes  No
Create a new session	<ul style="list-style-type: none"> <li>Is it clear to the user that system has taken input</li> <li>Can the user resume control for</li> </ul>	Yes  Yes

	<p>the next action.</p> <ul style="list-style-type: none"> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>No</p> <p>No</p>
Open current report	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Act on notification	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Dissolve notifications	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> </ul>	<p>Yes</p>

	<ul style="list-style-type: none"> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
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**TASK 3 : Access previous / current report of students - by professor**

<b>Action in Sequence</b>	<b>System mismatch Question</b>	<b>Potential problem and design solution</b>
Initiate Session	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> </ul>	<p>Not much clear</p> <p>Almost confidently</p> <p>Responses are pretty clear</p> <p>Yes</p>



	<ul style="list-style-type: none"> <li>Is the end of the system action Clear</li> </ul>	
Login into a session	<ul style="list-style-type: none"> <li>Is it clear to the user that system has taken input</li> <li>Can the user resume control for the next action.</li> <li>Are the systems response visible &amp; interpretable</li> <li>Is the end of the system action Clear</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p>
Select current report	<ul style="list-style-type: none"> <li>Is it clear to the user that system has taken input</li> <li>Can the user resume control for the next action.</li> <li>Are the systems response visible &amp;</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Systems are really clear and viable</p> <p>Yes</p>

	<p>interpretable</p> <ul style="list-style-type: none"> <li>• Is the end of the system action Clear</li> </ul>	
Select the student	<ul style="list-style-type: none"> <li>• Is it clear to the user that system has taken input</li> <li>• Can the user resume control for the next action.</li> <li>• Are the systems response visible &amp; interpretable</li> <li>• Is the end of the system action Clear</li> </ul>	<p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

## **Conclusions and recommendations:**

- The user interface for acting on notifications of students should be further improved.
- The touch interface should be improved for to be a more user-friendly.
- Certain features are for students only and certain are for professors only, the slide should have a label of student or professor for easy identification.
- Invalid click sound should also be present.
- A help section should be included for easy understanding of terms like 'session' etc.