

# **CENG 322 Software Project - Deliverable 2**

**Project Name: Smart Home Controller**

**Team Name: Fabulous 4 (T3)**

<b>Name</b>	<b>Id</b>	<b>Signature</b>	<b>Effort</b>
<b>Safwan Shaib</b>	<b>N01343815</b>	SS	100 %
<b>Nkeiru Johnson-Achilike</b>	<b>N01411707</b>	NJA	100%
<b>Abdalrahman Ragab</b>	<b>N01440938</b>	AR	100%
<b>Tanushree Ray</b>	<b>N01330428</b>	TR	100%

## Table of Contents

<b>Project Description .....</b>	<b>3</b>
<b>Link GitHub Repo and Strategy.....</b>	<b>3</b>
<b>Screenshot of GitHub invitation .....</b>	<b>4</b>
<b>Stories and Tasks screen shot .....</b>	<b>5</b>
<b>Business Model Canvas .....</b>	<b>7</b>
<b>Firebase Database .....</b>	<b>8</b>
<b>Coding Progress .....</b>	<b>8</b>
<b>Table Record (daily stand-ups).....</b>	<b>9</b>
<b>Screenshot of Creating Sub folder in the repo .....</b>	<b>9</b>

## **Project Description**

Our proposed device is a Smart home security/utility controller that monitors and helps manage some home security features and indoor condition. This device has become increasingly necessary in effectively managing home security outdoor and indoor. Smart controllers are known to make the use of devices efficient, energy-saving and convenient among many other benefits.








Sensors play an important role in our Smart Controller. The motion sensor detects the presence of a human within the sensor range and turns on an outside light allowing the human to unlock the door using the RFID sensor (on a key/fob). The Smoke detector and temperature sensor help monitor and manage indoor conditions to ensure it is favorable.

## **Link GitHub Repo and Strategy**

[\*\*https://github.com/AbdulrhmanRagab0938/SmartHomeController\*\*](https://github.com/AbdulrhmanRagab0938/SmartHomeController)


Once the deliverables are posted we go through the requirements carefully and discuss in class/Online who is comfortable in performing what tasks. After that we divide the tasks-based on each people's expertise and comfort. We meet online on weekends to check the progress of each task and try to help each other in case we face any technical challenges to make sure we can successfully deliver our assignment on time.

## Screenshot of GitHub invitation

<input type="checkbox"/> Select all		Type ▾
<input type="text" value="Find a collaborator..."/>		
<input type="checkbox"/>	<div><div><b>ali-lab2020</b> Awaiting ali-lab2020's response</div></div> <div>Pending Invite </div> <div>Remove</div>	
<input type="checkbox"/>	<div><div><b>NkeiruJohnsonA1707</b> Awaiting NkeiruJohnsonA1707's response</div></div> <div>Pending Invite </div> <div>Remove</div>	
<input type="checkbox"/>	<div><div><b>SafwanShaib3815</b> Awaiting SafwanShaib3815's response</div></div> <div>Pending Invite </div> <div>Remove</div>	
<input type="checkbox"/>	<div><div><b>TanushreeRay0428</b> Collaborator</div></div> <div></div> <div>Remove</div>	

# Stories and Tasks screen shot

Smart Home Controller

Last seen  +2

Invite / 4

+ Add to board

...

Main Table

Timeline

Dashboard

Dashboard

+ Add View

Integrate

Automate

New Task






Search

Person






Filter

Sort




Implement Bottom Navigation

	Person	Status	Start Date	End Date	Progress Tracking	
Demonstrate the use of colors.xml, dimens.xml, and styles.x...	 TR	Working on it	Jun 11		<div></div> 0%	
Implement the use of styles in objects	 AR	Done	May 29	May 29	<div></div> 100%	
Set different background colors for the fragments	 AR	Done	May 28	May 28	<div></div> 100%	
Display proper text and image for each bottom navigation ite...	 NJ	Done	May 28	May 28	<div></div> 100%	
Add 4 items to the bottom Navigation	 TR	Done	May 27	May 27	<div></div> 100%	
+ Add Task						
				May 27 - 29	<div></div> 80%	






Screen Design

	Person	Status	Start Date	End Date	Progress Tracking	
Design of the configuration screen without functionality	 NJ	Working on it	Jun 11	Jun 12	<div></div> 0%	
Design of the splash screen	 TR	Working on it	Jun 11	Jun 12	<div></div> 0%	
Add Images to different screens	 AR	Working on it	Jun 10	Jun 11	<div></div> 0%	
Implement landscape and portrait layouts for splash and mal...	 AR	Working on it	Jun 12	Jun 12	<div></div> 0%	
Implement English and French language for all the screens	 AR	Done	May 26	May 26	<div></div> 100%	
+ Add Task						
				May 26 - Jun 12	<div></div> 20%	

Menu Item Design

	Person	Status	Start Date	End Date	Progress Tracking	
Add proper image for the menu items not in the overflow	 AR	Working on it	Jun 11	Jun 12	<div></div> 0%	
Set at least one menu item to always with image and text	 AR	Working on it	Jun 10	Jun 11	<div></div> 0%	
Implement 3 options (always, if room, never) for the menu ite...	 AR	Working on it	Jun 11	Jun 12	<div></div> 0%	
+ Add Task						
				Jun 11 - 12	<div></div> 0%	

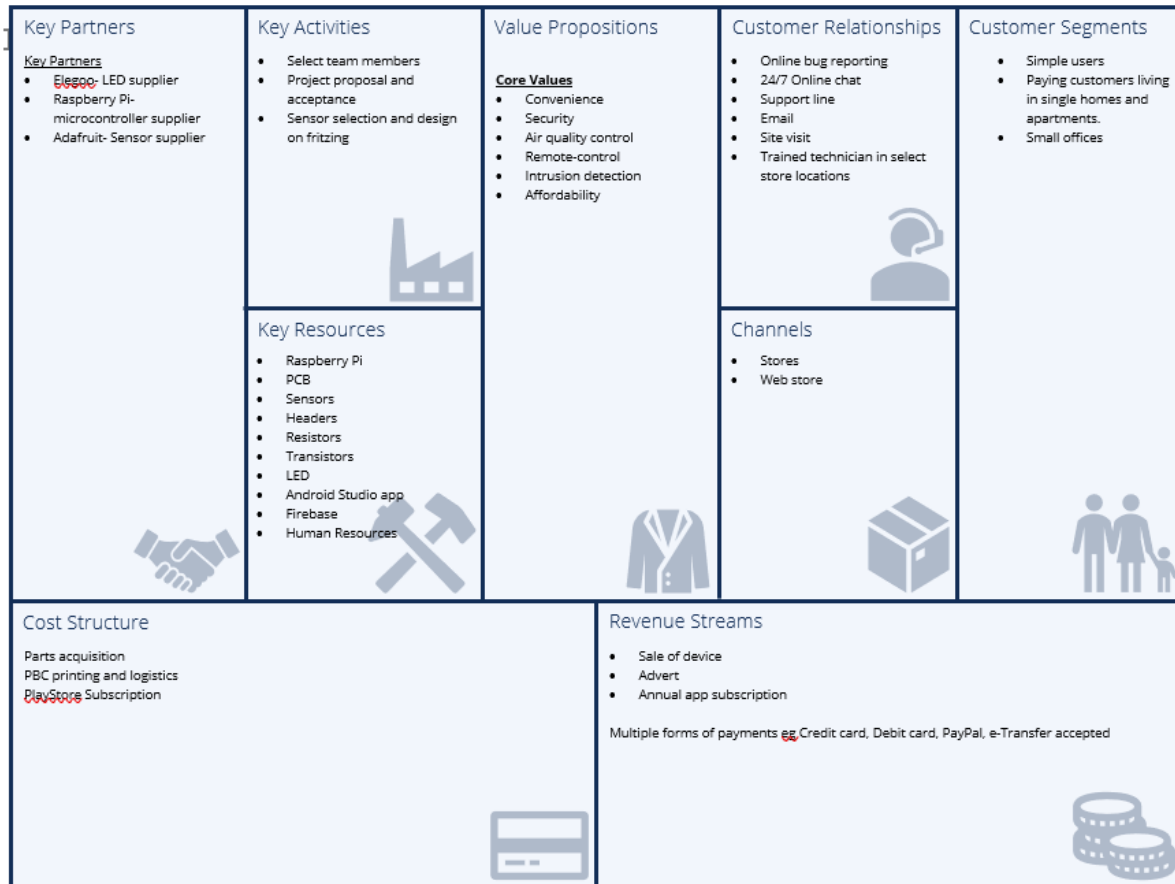
Runtime Permission and Alert Dialog

	Person	Status	Start Date	End Date	Progress Tracking	
Implement runtime permission functionality for making calls	 TR	Working on it	Jun 11	Jun 12	<div></div> 0%	
Display proper screen to allow or deny runtime permission	 TR	Working on it	Jun 11	Jun 12	<div></div> 0%	
Display a snackbar whether permission granted or denied	 NJ	Working on it	Jun 11	Jun 12	<div></div> 0%	
Display Alert Dialog to intercept the user to stay or exit the app	 AR	Done	May 27	May 28	<div></div> 100%	
Display proper image for the alert dialog	 AR	Done	May 28	May 29	<div></div> 100%	
+ Add Task						
				May 28 - Jun 12	<div></div> 40%	

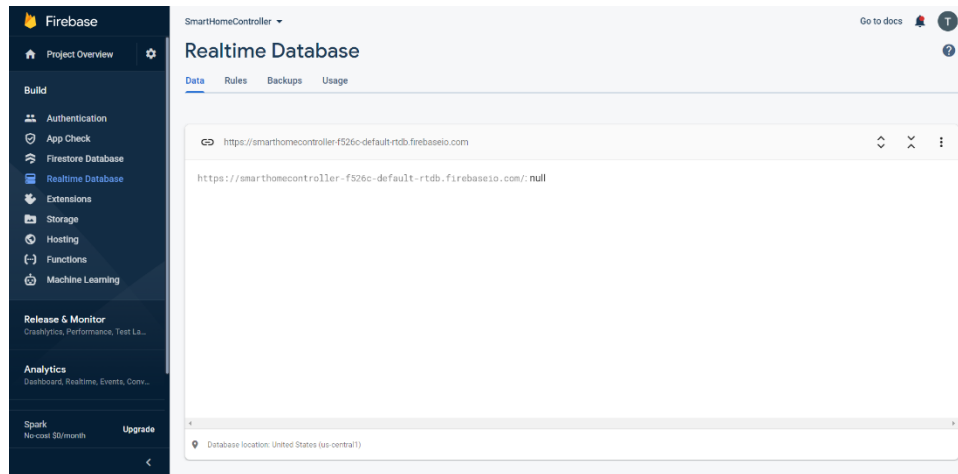
Implement Navigation Drawer						
	Person	Status	Start Date	End Date	Progress Tracking	
Add configuration screen to the navigation drawer	NJ	Working on it	Jun 10	Jun 12	<div></div>	0%
Add appropriate icons for all the drawer items	NJ	Working on it	Jun 11	Jun 12	<div></div>	0%
Navigation Header should include the appropriate image and ...	TR	Working on it	Jun 11	Jun 12	<div></div>	0%
Should show the three lines when not sliding to indicate the D...	AR	Working on it	Jun 11	Jun 12	<div></div>	0%
Add different background color for Navigation Header	AR	Working on it	Jun 12	Jun 12	<div></div>	0%
+ Add Task						
			Jun 12		<div></div>	0%
General Criteria						
	Person	Status	Start Date	End Date	Progress Tracking	
Enter Full Name, student ID of each team members to all the ...	AR	Done	May 26	May 26	<div></div>	100%
Enter Full Name, student ID of each team members to all the ...	AR	Done	May 27	May 27	<div></div>	100%
Use home screen icon different than the default Android icon	AR	Done	May 29	May 29	<div></div>	100%
In strings.xml, app name must be your project name.	NJ	Done	May 27	May 27	<div></div>	100%
Change the module name of the app	TR	Done	May 25	May 25	<div></div>	100%
+ Add Task						
			May 25 - 29		<div></div>	100%
Github Implementation						
	Person	Status	Start Date	End Date	Progress Tracking	
Create a private repository named Smart Home Controller(Na...	AR	Done	May 26	May 26	<div></div>	100%
Invite the professor and all other team members as a collabor...	AR	Done	May 26	May 26	<div></div>	100%
Add .gitignore file with the appropriate content into the projec...	TR	Done	May 27	May 27	<div></div>	100%
Add team name and all members names and students ids as ...	NJ	Done	May 28	May 28	<div></div>	100%
Delete the module level .gitignore file	TR	Done	May 28	May 28	<div></div>	100%
Add README.md file into the project folder with with the appr...	AR	Done	May 29	May 29	<div></div>	100%
Add all members names and student's ids as second line in th...	AR	Done	May 28	May 28	<div></div>	100%
Create a subfolder called deliverable2 under docs in the repo ...	NJ	Working on it	Jun 12	Jun 12	<div></div>	0%
+ Add Task						
			May 26 - Jun 12		<div></div>	88%

All the tasks from deliverable 1 are completed and few tasks from deliverable 2 is completed and few are in progress. The knowledge we acquire from CENG 258 course help us to complete the tasks assigned to us. Once the requirements are posted it is discussed first and then we split the tasks between each team member. We assist each other if we face any technical difficulties which could prevent us to deliver the item on time. We make sure all the deliverables scheduled for the sprint are met and we schedule the incomplete ones for the next sprint.

# Business Model Canvas



# Firestore Database



We will use firebase Database for our Smart Home Controller Project. All the real time readings we will receive from your sensors will be stored in the firebase Database so that we can retrieve those data in our mobile app and perform different activities such as Turn on lights or turn heater/ac on or off etc.

Firebase has several advantages such as:

- Higher Website Traffic with App Indexing. ...
- Swift and Secured Web Hosting. ...
- Higher Accessibility to Machine Learning APIs. ...
- Crash Reporting for Swift Bugs Fixing. ...
- Optimized App Performance.

Additionally, it would be easier to maintain and access all the team members data as it is hosted in cloud.

## Coding Progress

We made a good progress in terms of coding for building our mobile application for smart home controller project. We are following Agile methodology and most of the sprints are dedicated to implement the functionality according to the guideline provided and to improve the design and



behaviour of the app. The template for our application is created and connected to the firebase database to store and retrieve data from the real time systems. Basic features such as use of bottom navigation and navigation drawer is implemented. Further progress will be made once we get readings from the sensors and perform different activities based on the data we will receive from the firebase database.

### **Table Record (daily stand-ups)**

<b>Outcome</b>	<b>Day</b>
Better understanding of the project for all members	Wednesday, June 8th
Distributed the work Fairly between members	Thursday, June 9th
Discussed the progress for each and helped others	Friday, June 10th
Conclude Deliverable2	Saturday, June 11th

### **Tools used**

- Snipping tool
- Quick Assist
- Camera

### **Screenshot of Creating Sub folder in the repo**