CENG-322 Software Project

Deliverable 4

The Second Dawn

A.L.I.E

CENG-322

Haki Sharifi

Dec 05, 2022

Team Member Information

Team Member Names:	Student ID's:
Paramand Mohabir	N01421732
Paolo Brancato	N01434080
Dave Patel	N01465129
Vladislav Vassilyev	N01436627

Table of Contents

Project Scope

The technical scope of this project is to accomplish our goal by developing a fully functional A.I. called "A.L.I.E," which will control different components on our PCB Board through our Android App A.L.I.E. The project plan to accomplish this goal is to plan out our work in phases. In Phase 1, we will design our PCB board on the website called *Fritzing*. Then, once our design is completed and verified, we move on to Phase 2, which is to order our PCB board and also order our four components, which are a fan, a speaker amplifier, a voice recognition system, and LED Matrix lights. Once the parts are delivered, we move on to Phase 3, which is to solder our components onto our new PCB board and make sure all components are functional. Once the board is complete, we move on to Phase 4, which is to code our components into our Android Studio Project A.L.I.E and send data to the Firebase Database and then to our hardware. The final phase in our project is to present our new A. I. 'A.L.I.E' to the professor for evaluation. Our team, The Second Dawn, will know our project is completed when our A. I can control all 4 components on our PCB Board using our app 'A.L.I.E' and function as planned with a high degree of effectiveness.

Team Members Info & Participation

Team Member Names:	Student ID:	Signatures	Effort
Paramand Mohabir	**N01421732**	**P.M**	**100%** **The effort I've added to this project was fabulous. I was able to get most things working 100% and did a bunch of assigned work. Everything was completed during this project with a high degree of effectiveness & skill.**

			It is time to celebrate the victory of our Software Project!
Paolo Brancato	**N01434080**	**P.B**	**100%** **I was able to implement the splash screen for the A.L.I.E application, I was responsible for most of the a.l.i.e art icons and backgrounds created in photoshop, led_gradiant as well. I added multiple strings to .xml and converted English to french in .xml fr. I created a fragment named led frag. I added a handler for 3 seconds. I created a new drawable with 5 resolutions.**
Dave Patel	**N01465129**	**D.P**	**100%** ● **1 Sprint story with 5 tasks** ● **Created and designed FAQ Activity, ContactUs Activity, AboutUs Activity** ● **implemented night mode functionality in the help screen** ● **Implemented functionality in SpeakerFrag so user can pick and play audio files**

			• Implemented toast function and progressDialog in contactUs Activity • Implemented firebase connectivity in ContactUsActivity • Created landscape layouts for new screens • Added onClick listeners to help screen • added multiple strings to .xml and converted English to french in .xml fr • Documentation
Vladislav Vassilyev	**N01436627**	**V.V**	**100%** **I was working on improving functionality for the smart fan fragment and updating the configuration screen. I also developed 5 test cases and wrote 1 story. Created a c4 diagram and improved the app functionality.**

GitHub Repo Link

https://github.com/ParamandMohabir1732/A.L.I.E/

Login Credentials

The Login Credentials are located down below for your Reference to logging in.

Email:

TheSecondDawnALIEAPP@gmail.com

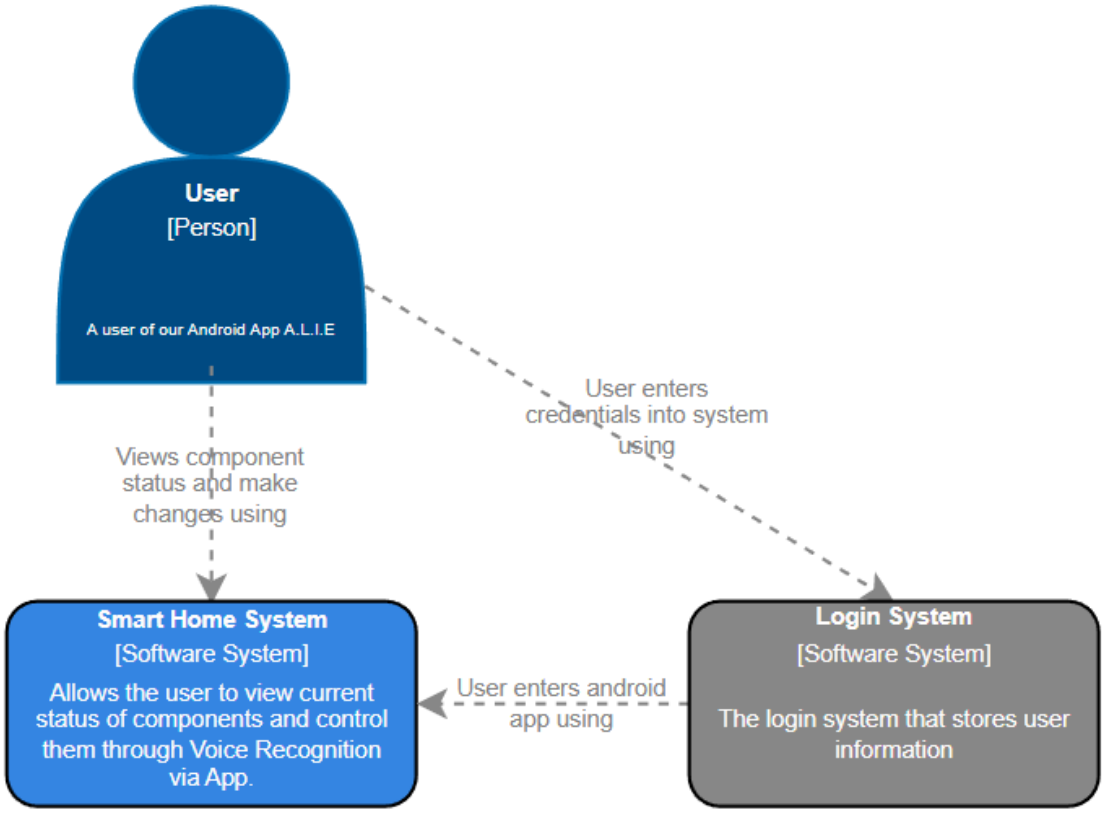
Password:

TheSecondDawn$123

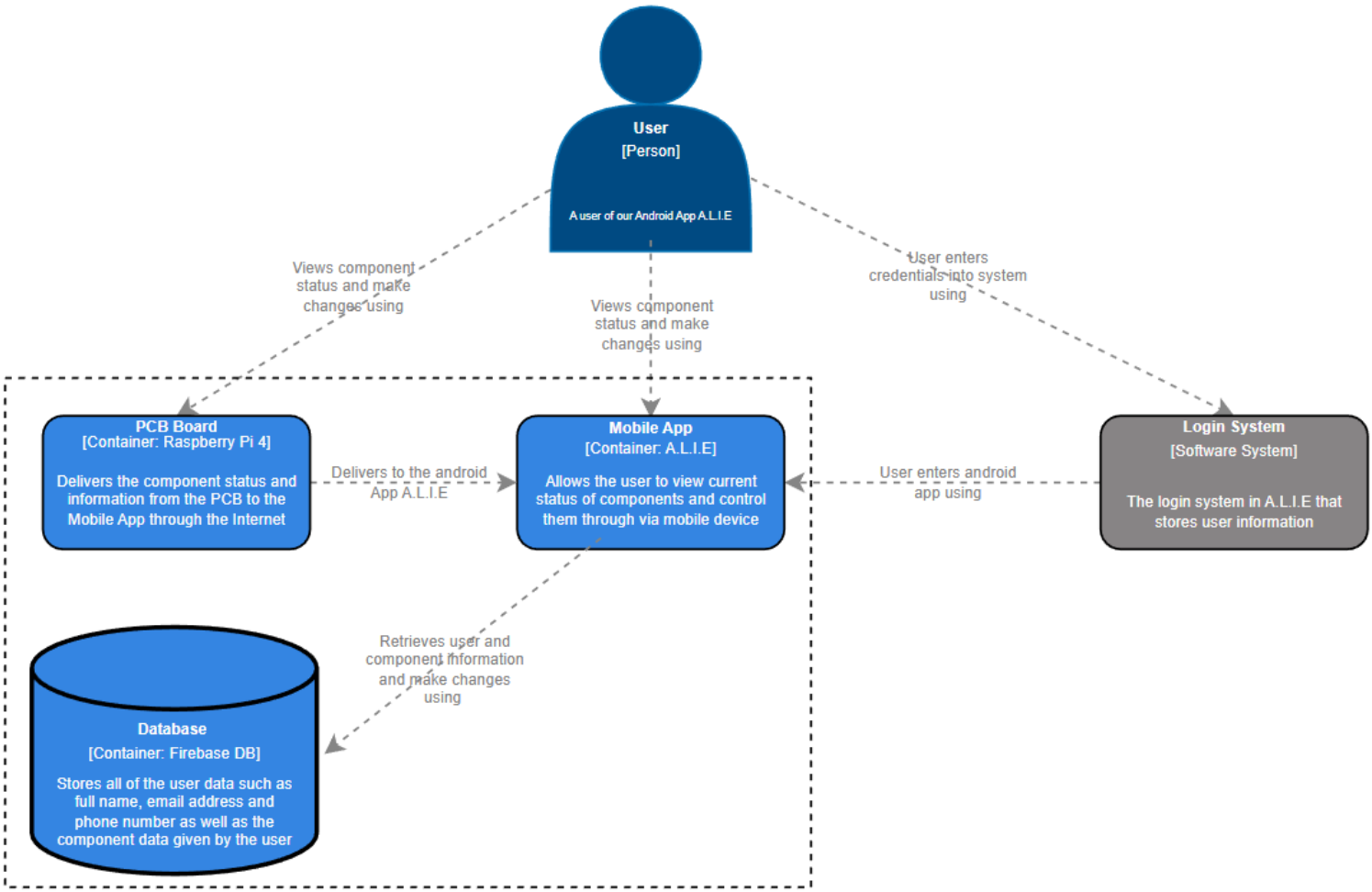
Sprint Goals

The sprint goals in our Project A.L.I.E that we, The Second Dawn, have reviewed to lead to our success are, focusing and completing daily scrums, establishing a scrum dashboard to assess progress, value and deadlines, implement a customer review screen to receive feedback and improve functionality and improve UI design of the app for all devices giving wide accessibility. Firstly, completing daily scrums will help us increase productivity, improve our collaboration and keep track of three questions which are, what we did yesterday, what will we do today and any blockers preventing progress towards your tasks/goals. Secondly, establishing a scrum dashboard is an excellent way to visualize and keep track of all sprint tasks. The scrum dashboard can have many benefits such as setting priorities, status checks and keeping track of time accumulated in tasks and to who they belong. Thirdly, implementing a customer review screen can be very beneficial for us, as customers can provide feedback about our app and what can be improved to achieve more sales and have a better reputation for new customers. Lastly, having an outstanding design is essential for our project as we can attract new customers, increase our boost in customer retention and receive higher customer satisfaction. Thus, these sprint goals we have in our project A.L.I.E that we, The Second Dawn, reviewed will lead to the success of our project.

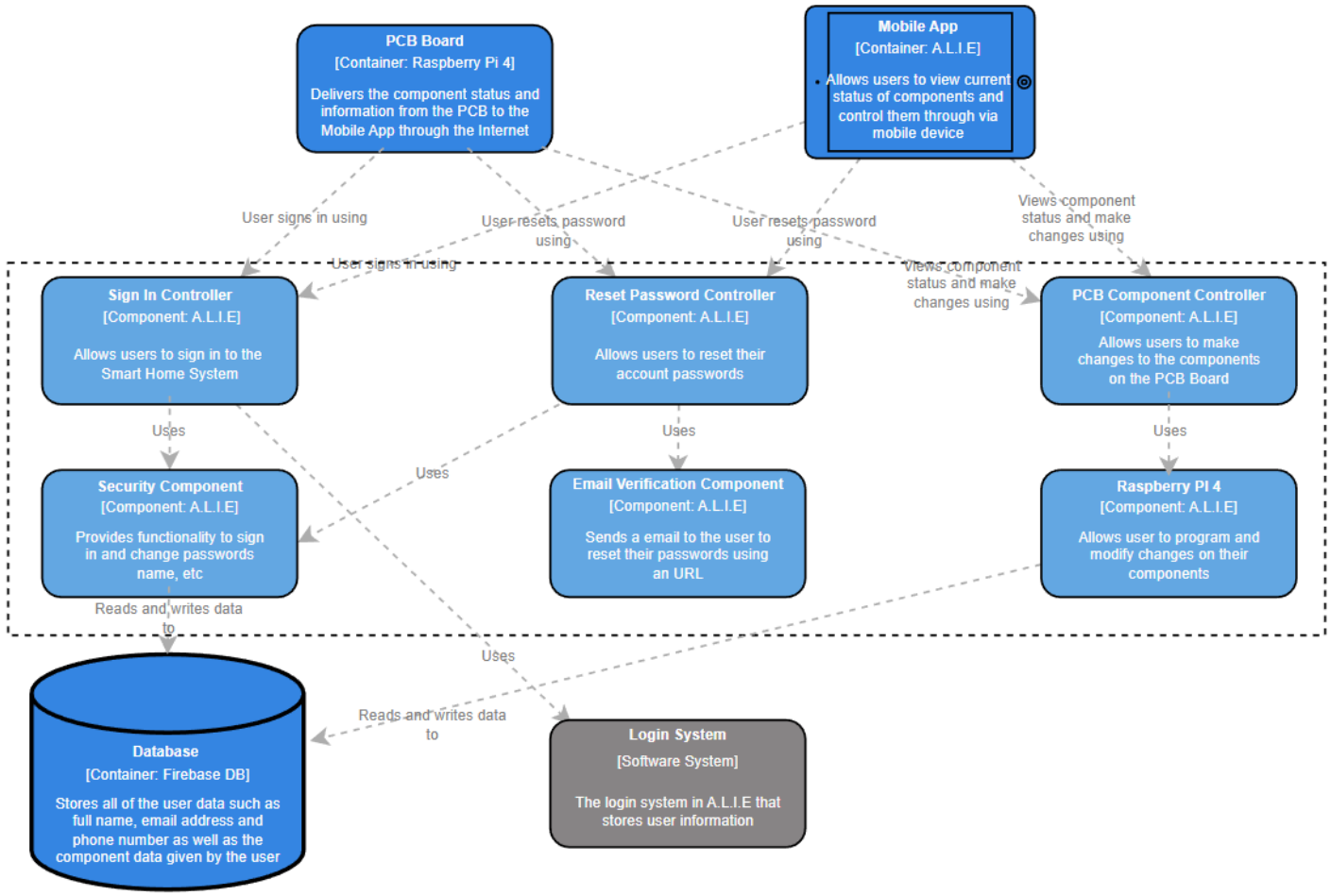
C4 Context Diagram



C4 Container Diagram



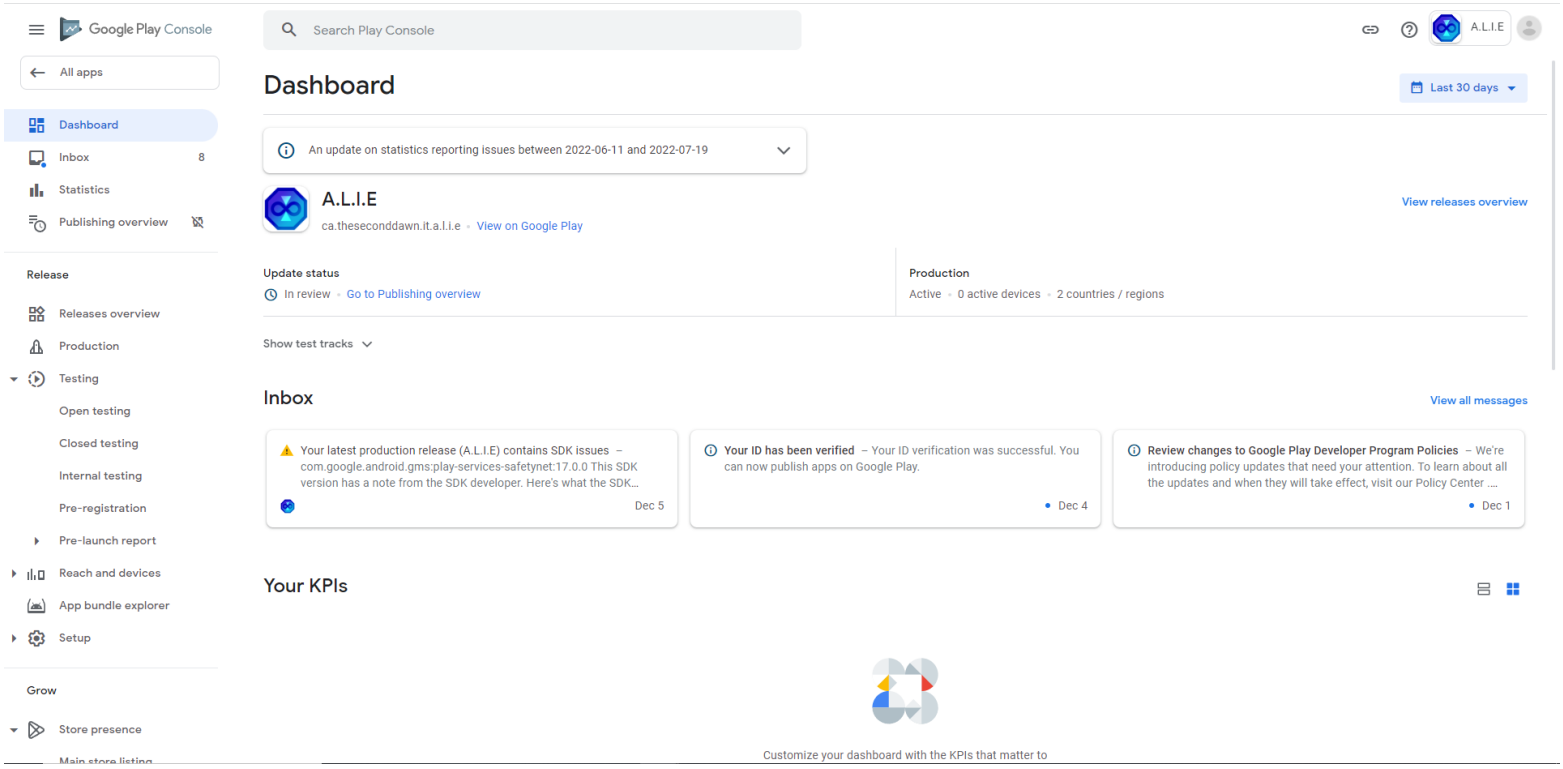
C4 Component Diagram



Google Play App Link

The Google Play App link will be sent to your email when the app gets reviewed by Google and it gets Published.

Google Play App Screenshot



Offline Functionalities

The functionalities that are used offline in our app A.L.I.E is, the Home Screen Firebase Connectivity and Profile. If the user loses wifi connection when making changes to the Home Screen, the last saved data on the Firebase Cloud DB will be read and displayed on the Device and will be saved unless the user logs out of the app. If the user loses the wifi connection, the Profile Fragment Screen will continue to display the current user information from the last saved information from the Firebase DB cloud until the user logs out which will then lose the saved data.

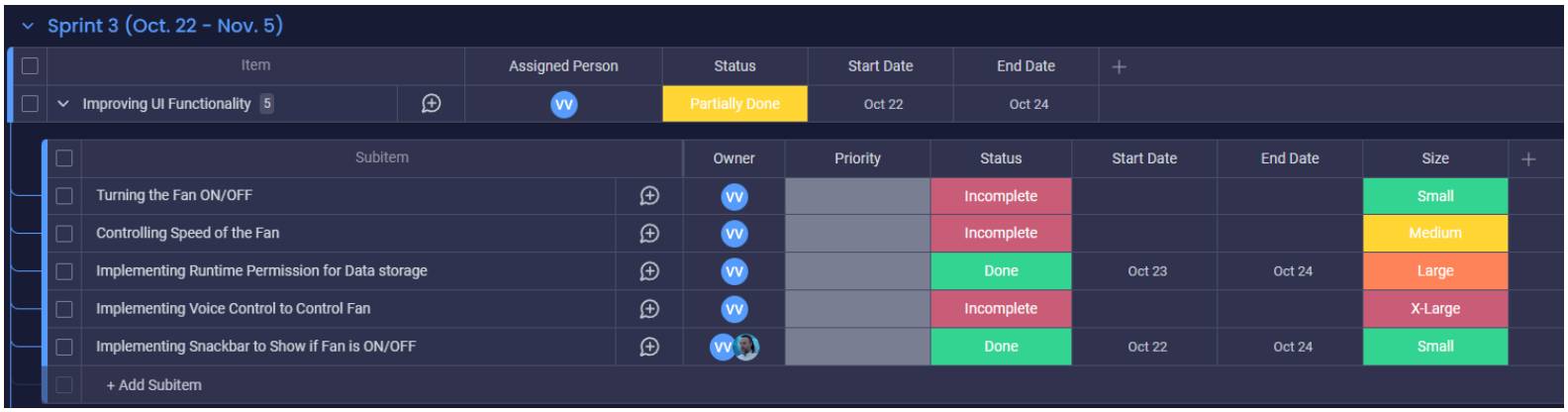
Runtime Permissions

The runtime permissions we, The Second Dawn have implemented on our app A.L.I.E, are Voice Runtime Permission, Access to Storage Runtime Permission, Access to Location Runtime Permission and Bluetooth Runtime Permission. The Voice Runtime Permission will be used on the home screen and will be requested once the user presses the microphone image button to allow microphone access. The Access to Storage Runtime Permission will be used on the Smart Fan screen and will be requested once the user pressed the button. The Access to Location Runtime Permission will be used on the LED Screen and will be requested once the user pressed the button. The Bluetooth Runtime Permission will be located in the Bluetooth Activity under the menu options Bluetooth and will be requested once the user clicks on the turn-on button.

Scrum Dashboards

Sprint 3 Dashboard

Story #1 Improving UI Functionality:

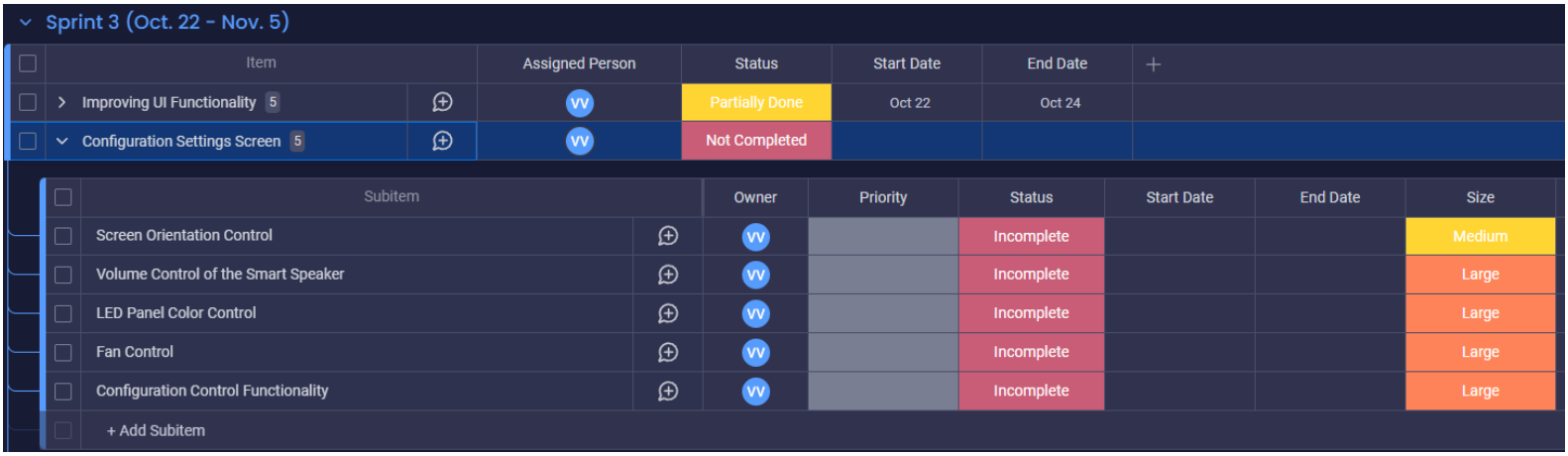


Sprint 3 (Oct. 22 - Nov. 5)

Item	Assigned Person	Status	Start Date	End Date
Improving UI Functionality 5	VV	Partially Done	Oct 22	Oct 24

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Turning the Fan ON/OFF	VV		Incomplete			Small
Controlling Speed of the Fan	VV		Incomplete			Medium
Implementing Runtime Permission for Data storage	VV		Done	Oct 23	Oct 24	Large
Implementing Voice Control to Control Fan	VV		Incomplete			X-Large
Implementing Snackbar to Show if Fan is ON/OFF	VV		Done	Oct 22	Oct 24	Small
+ Add Subitem						

Story #2 Configuration Settings Screen:

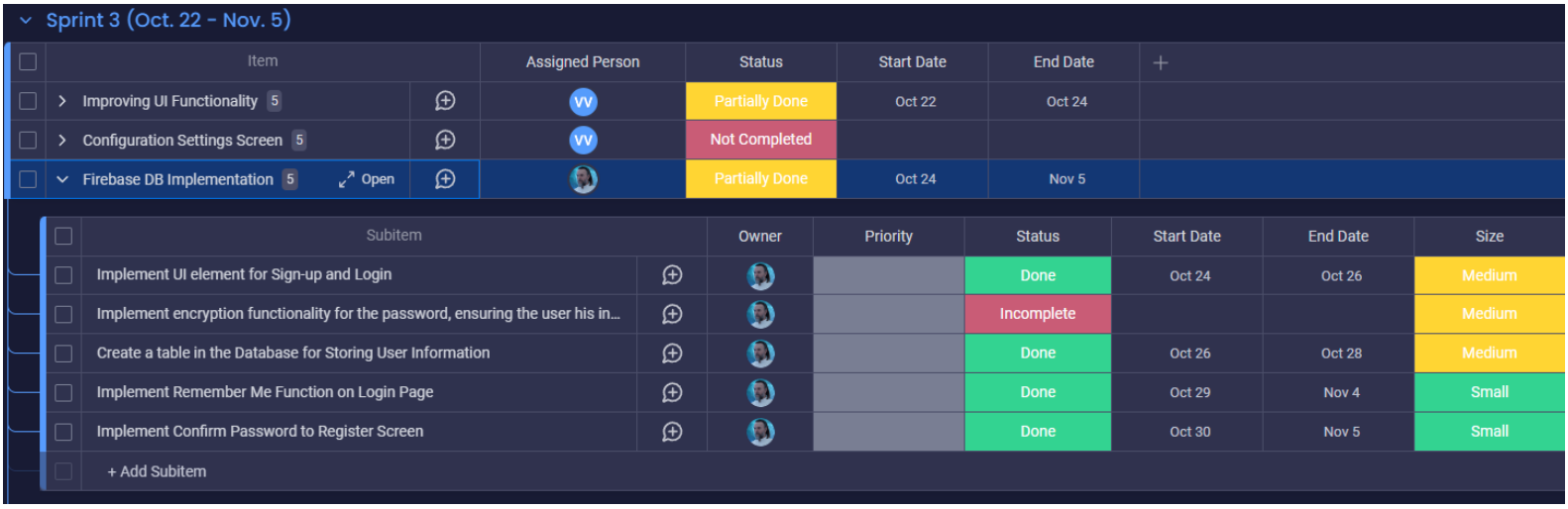


Sprint 3 (Oct. 22 - Nov. 5)

Item	Assigned Person	Status	Start Date	End Date
Improving UI Functionality 5	VV	Partially Done	Oct 22	Oct 24
Configuration Settings Screen 5	VV	Not Completed		

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Screen Orientation Control	VV		Incomplete			Medium
Volume Control of the Smart Speaker	VV		Incomplete			Large
LED Panel Color Control	VV		Incomplete			Large
Fan Control	VV		Incomplete			Large
Configuration Control Functionality	VV		Incomplete			Large
+ Add Subitem						

Story #3 Firebase DB Implementation:



Sprint 3 (Oct. 22 - Nov. 5)

Item	Assigned Person	Status	Start Date	End Date
Improving UI Functionality 5	VV	Partially Done	Oct 22	Oct 24
Configuration Settings Screen 5	VV	Not Completed		
Firebase DB Implementation 5 Open		Partially Done	Oct 24	Nov 5

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Implement UI element for Sign-up and Login			Done	Oct 24	Oct 26	Medium
Implement encryption functionality for the password, ensuring the user his in...			Incomplete			Medium
Create a table in the Database for Storing User Information			Done	Oct 26	Oct 28	Medium
Implement Remember Me Function on Login Page			Done	Oct 29	Nov 4	Small
Implement Confirm Password to Register Screen			Done	Oct 30	Nov 5	Small
+ Add Subitem						

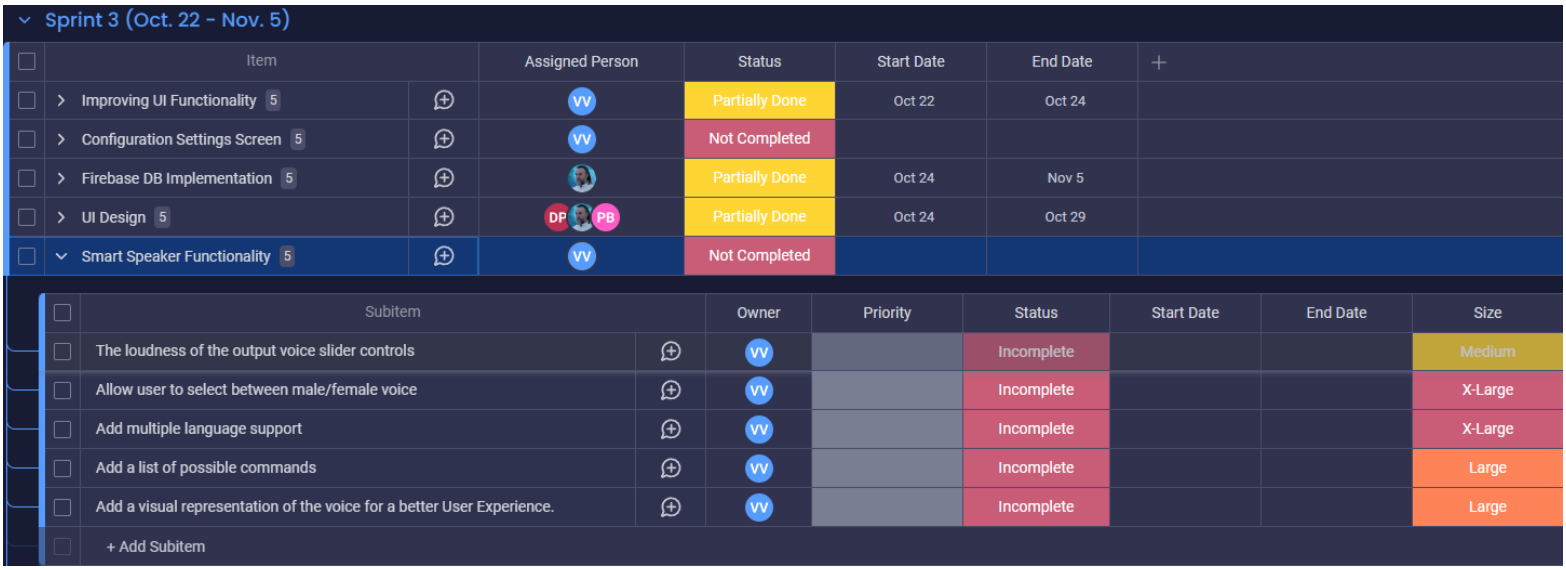
Story #4 UI Design:

Sprint 3 (Oct. 22 - Nov. 5)

Item	Assigned Person	Status	Start Date	End Date
Improving UI Functionality 5	VV	Partially Done	Oct 22	Oct 24
Configuration Settings Screen 5	VV	Not Completed		
Firebase DB Implementation 5		Partially Done	Oct 24	Nov 5
UI Design 5	DP PB	Partially Done	Oct 24	Oct 29

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Implement A User-Friendly, Responsive Interface	DP		Done	Oct 24	Oct 27	Medium
Use a mixture of icons and text for action buttons	DP		Done	Oct 28	Oct 29	Small
Use color palette tools for visuals	DP PB		Incomplete			Medium
Add animation/images	DP +2		Done	Oct 29	Oct 30	Medium
Use Scalable Text	DP		Done	Oct 29	Oct 29	Small
+ Add Subitem						

Story #5 Smart Speaker Functionality:



Sprint 3 (Oct. 22 - Nov. 5)

Item	Assigned Person	Status	Start Date	End Date
Improving UI Functionality 5	VV	Partially Done	Oct 22	Oct 24
Configuration Settings Screen 5	VV	Not Completed		
Firebase DB Implementation 5		Partially Done	Oct 24	Nov 5
UI Design 5	DP PB	Partially Done	Oct 24	Oct 29
Smart Speaker Functionality 5	VV	Not Completed		

Subitem	Owner	Priority	Status	Start Date	End Date	Size
The loudness of the output voice slider controls	VV		Incomplete			Medium
Allow user to select between male/female voice	VV		Incomplete			X-Large
Add multiple language support	VV		Incomplete			X-Large
Add a list of possible commands	VV		Incomplete			Large
Add a visual representation of the voice for a better User Experience.	VV		Incomplete			Large
+ Add Subitem						

Sprint 4 Dashboard

Story #1 Firebase DB Google, Facebook Login:

Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Implement UI Element for Google Login		Critical ⚠	Done	Oct 28	Oct 29	Small
Send User Data From Google to Firebase DB		High	Done	Nov 5	Nov 10	Large
Implement UI Element for Facebook Login		Low	Done	Oct 28	Oct 30	Small
Send User Data From Facebook to Firebase DB		Medium	Incomplete	Nov 5	Nov 14	Large
Translate Text from Toasts To French		Low	Done	Oct 28	Nov 12	Small
+ Add Subitem						

Story #2 Speaker Screen UI Design:

Sprint 4 (Oct. 28 - Nov. 14) 7 items / 36 Subitems

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Implement seekbar to adjust volume	DP	High	Done	Nov 9	Nov 11	Small
Implement switch for turning speaker On/Off	DP	Medium	Done	Nov 10	Nov 12	Small
Create pause and play buttons for media files	DP	Medium	Done	Nov 11	Nov 12	Medium
Store data into sharedPref and upload to Database	DP	Critical ⚠	Incomplete			Large
Add animation to make screen visually appealing	DP	Low	Done	Nov 11	Nov 13	Large
Add appropriate images for Speaker UI	DP	Critical ⚠	Done	Nov 10	Nov 12	Small
+ Add Subitem						

Story #3 Customer Review Screen:

Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14
Customer Review Screen 5	PB	Done	Nov 9	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Use emoji or stars for the review	PB	Medium	Done	Nov 10	Nov 11	Small
Include info; name, phone number, email and comment	PB	High	Done	Nov 10	Nov 11	Small
UI and Layout of Review Screen	PB	Critical ⚠	Done	Nov 10	Nov 12	Medium
Implement 1 runtime permission functionality	PB	Critical ⚠	Done	Nov 11	Nov 12	Large
Store data into firebase DB		Critical ⚠	Done	Nov 14	Nov 14	Large
+ Add Subitem						

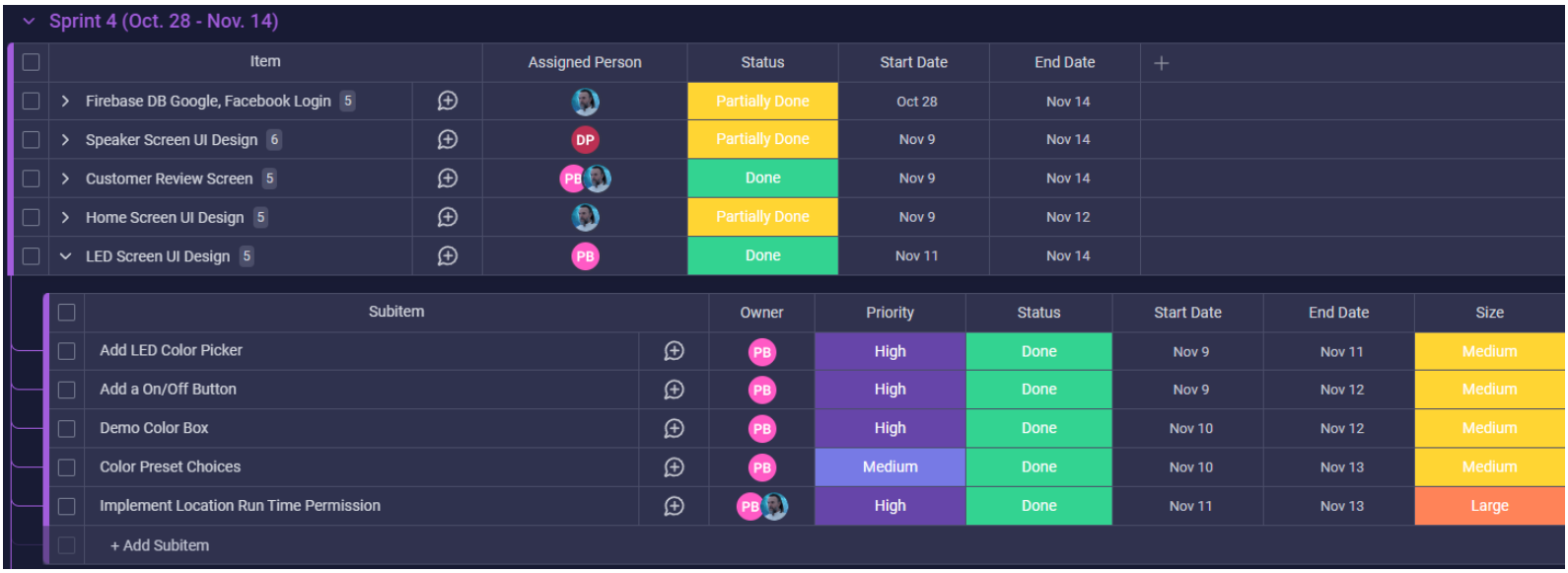
Story #4 Home Screen UI Design:

Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14
Customer Review Screen 5	PB	Done	Nov 9	Nov 14
Home Screen UI Design 5		Partially Done	Nov 9	Nov 12

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Implement Image Button Runtime Permission to Allow Microphone Access		Medium	Done	Nov 10	Nov 12	Medium
Create Landscape Version of Home Screen		Medium	Done	Nov 12	Nov 14	Medium
Implement Image Buttons to turn on certain Functions quickly like LED Lights...		Medium	Done	Nov 11	Nov 13	Large
Implement Notifications for Runtime Permissions		Medium	Incomplete	Nov 11	Nov 14	Large
Implement Snackbars for Runtime Permissions whether its already given per...		High	Done	Nov 11	Nov 12	Small
+ Add Subitem						

Story #5 LED Screen UI Design:



Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14
Customer Review Screen 5	PB	Done	Nov 9	Nov 14
Home Screen UI Design 5		Partially Done	Nov 9	Nov 12
LED Screen UI Design 5	PB	Done	Nov 11	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Add LED Color Picker	PB	High	Done	Nov 9	Nov 11	Medium
Add a On/Off Button	PB	High	Done	Nov 9	Nov 12	Medium
Demo Color Box	PB	High	Done	Nov 10	Nov 12	Medium
Color Preset Choices	PB	Medium	Done	Nov 10	Nov 13	Medium
Implement Location Run Time Permission	PB	High	Done	Nov 11	Nov 13	Large
+ Add Subitem						

Story #6 Screen Orientation Layout:

Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14
Customer Review Screen 5	PB	Done	Nov 9	Nov 14
Home Screen UI Design 5		Partially Done	Nov 9	Nov 12
LED Screen UI Design 5	PB	Done	Nov 11	Nov 14
Screen Orientation Layout 5	VV	Partially Done	Nov 11	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Use SharedPreferences to store Data and remember user selections		Critical ⚠	Done	Nov 11	Nov 13	X-Large
Implement Screen Orientation Function	VV	High	Done	Nov 11	Nov 14	Medium
Implement it in preferences	VV	High	Done	Nov 11	Nov 13	Large
Have all Screens Adapt to Orientation Function	VV	Critical ⚠	Incomplete	Nov 11	Nov 14	X-Large
Test Functionality	VV	Medium	Done	Nov 14	Nov 14	Small
+ Add Subitem						

Story #7 Smart Fan Screen UI Design and Function:

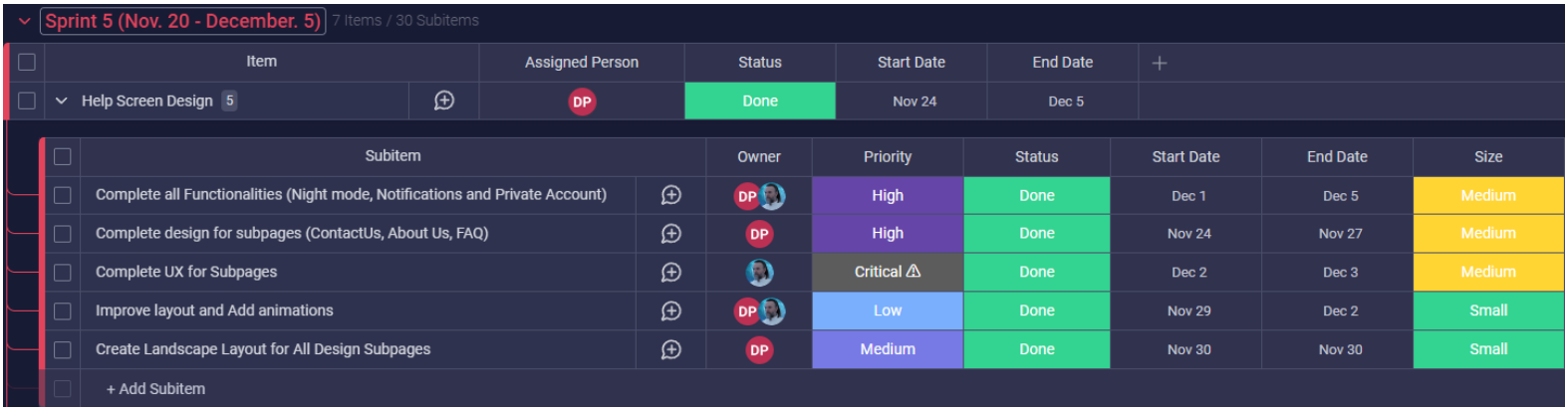
Sprint 4 (Oct. 28 - Nov. 14)

Item	Assigned Person	Status	Start Date	End Date
Firebase DB Google, Facebook Login 5		Partially Done	Oct 28	Nov 14
Speaker Screen UI Design 6	DP	Partially Done	Nov 9	Nov 14
Customer Review Screen 5	PB	Done	Nov 9	Nov 14
Home Screen UI Design 5		Partially Done	Nov 9	Nov 12
LED Screen UI Design 5	PB	Done	Nov 11	Nov 14
Screen Orientation Layout 5	VV	Partially Done	Nov 11	Nov 14
Smart Fan Screen UI Design and Function 5	VV	Done	Nov 14	Nov 14

Subitem	Owner	Priority	Status	Start Date	End Date	Size
ON/OFF button	VV	Low	Done	Nov 14	Nov 14	Small
Fan Speed slider	VV	Low	Done	Nov 14	Nov 14	Small
Fan Speed presets	VV	Low	Done	Nov 14	Nov 14	Small
Store usage data	VV	Medium	Done	Nov 14	Nov 14	Medium
Analyze usage data of the fan	VV	Low	Done	Nov 14	Nov 14	Medium
+ Add Subitem						

Sprint 5 Dashboard

Story #1 Help Screen Design:

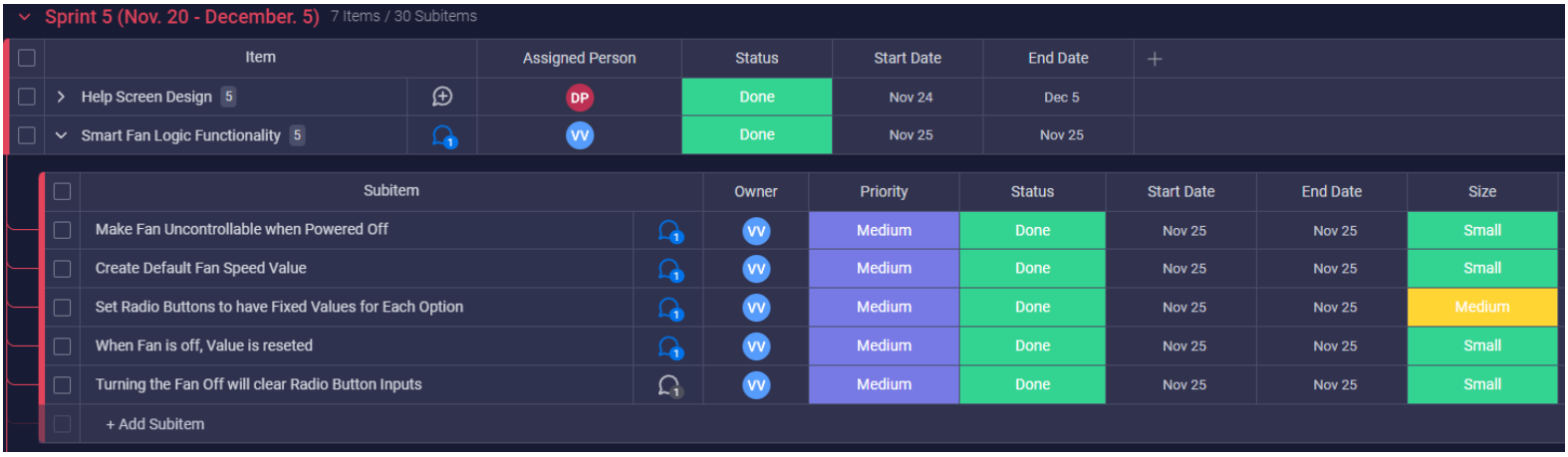


Sprint 5 (Nov. 20 - December. 5) 7 Items / 30 Subitems

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Complete all Functionalities (Night mode, Notifications and Private Account)	DP	High	Done	Dec 1	Dec 5	Medium
Complete design for subpages (ContactUs, About Us, FAQ)	DP	High	Done	Nov 24	Nov 27	Medium
Complete UX for Subpages		Critical ⚠	Done	Dec 2	Dec 3	Medium
Improve layout and Add animations	DP	Low	Done	Nov 29	Dec 2	Small
Create Landscape Layout for All Design Subpages	DP	Medium	Done	Nov 30	Nov 30	Small
+ Add Subitem						

Story #2 Smart Fan Logic Functionality:



Sprint 5 (Nov. 20 - December. 5) 7 Items / 30 Subitems

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5
Smart Fan Logic Functionality 5	VV	Done	Nov 25	Nov 25

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Make Fan Uncontrollable when Powered Off	VV	Medium	Done	Nov 25	Nov 25	Small
Create Default Fan Speed Value	VV	Medium	Done	Nov 25	Nov 25	Small
Set Radio Buttons to have Fixed Values for Each Option	VV	Medium	Done	Nov 25	Nov 25	Medium
When Fan is off, Value is reseted	VV	Medium	Done	Nov 25	Nov 25	Small
Turning the Fan Off will clear Radio Button Inputs	VV	Medium	Done	Nov 25	Nov 25	Small
+ Add Subitem						

Story #3 Contact Us Screen Design:

Sprint 5 (Nov. 20 - December. 5)

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5
Smart Fan Logic Functionality 5	VV	Done	Nov 25	Nov 25
Contact Us Screen Design 5	DP	Done	Nov 26	Dec 3

Subitem	Owner	Priority	Status	Start Date	End Date	Size
UI and Layout of Contact Us Screen	DP	Medium	Done	Nov 26	Nov 26	Large
Implemented Name, Email Address, Phone Number and Message Field	DP	High	Done	Nov 26	Nov 27	Medium
Add appropriate images for Contact screen	DP	Low	Done	Nov 27	Nov 27	Small
Create Landscape Version of Contact Us Screen	DP	Medium	Done	Nov 27	Nov 30	Small
Store Contact Us Data into Firebase DB		High	Done	Dec 2	Dec 3	Large
+ Add Subitem						

Story #4 Robletric Test Cases:

Sprint 5 (Nov. 20 - December. 5)

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5
Smart Fan Logic Functionality 5	VV	Done	Nov 25	Nov 25
Contact Us Screen Design 5	DP	Done	Nov 26	Dec 3
Robletric Test Cases 5	VV	Done	Nov 26	Nov 27

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Add Test Case for Toolbar if it can be inflated and runs settings screen	VV	Medium	Done	Nov 26	Nov 26	Medium
Add Test Case for Navigation Drawer if it can be inflated in main	VV	Medium	Done	Nov 26	Nov 26	Medium
Add Test Case for Settings Screen to check if textview is accessible	VV	Medium	Done	Nov 27	Nov 27	Medium
Add Test Case for testing landscape screen orientation	VV	Medium	Done	Nov 27	Nov 27	Medium
Add Test Case for testing button in to change orientation	VV	Medium	Done	Nov 27	Nov 27	Medium
+ Add Subitem						

Story #5 LED Screen Logic Functionality:

Sprint 5 (Nov. 20 - December. 5)

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5
Smart Fan Logic Functionality 5	VV	Done	Nov 25	Nov 25
Contact Us Screen Design 5	DP	Done	Nov 26	Dec 3
Robletric Test Cases 5	VV	Done	Nov 26	Nov 27
LED Screen Logic Functionality 5	PB	Done	Nov 30	Dec 3

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Add Color Picker to Control Background of LED Fragment Screen	PB	High	Done	Nov 30	Nov 30	Medium
Implement White Color Option to Change Background Color to White	PB	Medium	Done	Dec 2	Dec 3	Small
Implement Switch to Turn On the Colors on and off	PB	Low	Done	Dec 2	Dec 3	Small
Store Chosen Color from Color Picker to Shared Preferences		High	Done	Dec 1	Dec 1	Large
Implement Functionality to Turn Off Functions and Image when Power is Off	PB	Medium	Done	Dec 2	Dec 3	Large
+ Add Subitem						

Story #6 Espresso Test Cases:

Sprint 5 (Nov. 20 - December. 5)

Item	Assigned Person	Status	Start Date	End Date
Help Screen Design 5	DP	Done	Nov 24	Dec 5
Smart Fan Logic Functionality 5	VV	Done	Nov 25	Nov 25
Contact Us Screen Design 5	DP	Done	Nov 26	Dec 3
Robletric Test Cases 5	VV	Done	Nov 26	Nov 27
LED Screen Logic Functionality 5	PB	Done	Nov 30	Dec 3
Espresso Test Cases 5	PB	Done	Dec 3	Dec 3

Subitem	Owner	Priority	Status	Start Date	End Date	Size
Test Case for Testing LED Color Picker Button when Clicked	PB	Medium	Done	Dec 3	Dec 3	Small
Test Case for Testing Location Runtime Permission when Clicked	PB	High	Done	Dec 3	Dec 3	Small
Test Case for Testing LED Switch when ON/OFF	PB	Low	Done	Dec 3	Dec 3	Small
Test Case for Testing Text Color If it Matches	PB	Medium	Done	Dec 3	Dec 3	Small
Test Case for Testing Image View to see if it Contains the Correct Description	PB	Medium	Done	Dec 3	Dec 3	Small

Post-Mortem Retrospective

Project Review Retrospective

Post Mortem

December 5th, 2022

Paramand Mohabir

Calculate the project's performance in terms of cost, schedule, and quality.

When it comes to the projects performance in terms of cost, we had to spend $25 USD for the Google Play App submission to submit our Android App. In terms of schedule, our team was well organized and schedule went as planned according to the assigned work the team has to complete.

Did the team members involved manage their time wisely? Or everything was done last minute.

The team managed their time with their great time management skills developed during this Scrum project and all assigned work was completed with a high degree of effectiveness.

Were there issues with the quality or compromises along the way?

The project's quality was pretty good when it comes to functionalities, there were some compromises with our Project like we couldn't finish our private account and notification functions on our Help Screen. But other than that, every function was completed in our app in the desired time frame.

Lessons learned, mistakes, and area of improvements.

The lessons I learned was to organize my code properly or else later on, it can come with a consequence and more time has to be consumed to refactor the app. My mistakes were also staying up late in night finish my work where I should be doing it in the day to get good sleep to maintain good mental health. On thing I can improve on is my time management skills from the Deliverable and other courses I have by making notes on what has to be done.

Vladislav Vassilyev

Calculate the project's performance in terms of cost, schedule, and quality.

In terms of the development costs for the project it was free. Submitting the ap to google play was 25$. Schedule wise the project performed greatly I would rate it a solid 95%. In terms of the quality. the app was tested and functioning perfectly.

Did the team members involved manage their time wisely? Or everything was done last minute.

I would commend all team members for great time management skills. Everything was ready way before the completion date

Were there issues with the quality or compromises along the way?

This project was quality oriented form the start. Even though we had some problems, we still reached all of the desired functionality

Lessons learned, mistakes, and area of improvements.

Main lesson for me is to communicate better with my team members. This improves productivity and everyone benefits from it.

Paolo Brancato

Calculate the project's performance in terms of cost, schedule, and quality.

Calculations
the team did not spend any money on this project when it comes to the development side = 100%.
The teams schedule was on point and never did anyone leave last minute = 90%
our team always worked their best, and focused on the project, however certain things were difficult and not all was complete = 80%

Did the team members involved manage their time wisely? Or everything was done last minute.

The team managed the time wisely and all commits were planed with others before starting, the project manager kept everything under control and assigned all the work. This kept everything/everyone in order.

Were there issues with the quality or compromises along the way?

the quality was up to expectation, however their were hiccups like the difficulty in JUnit that prevented us from work efficiently certain days .

Lessons learned, mistakes, and area of improvements.

In this project I learned my coding skills are not where I want them to be, and this needs improvement, however I also learned that I work well in the team and my teammates were all able to compromise if necessary along the way. overall I learned with a good team and good time management lots can get done.

Dave Patel

Calculate the project's performance in terms of cost, schedule, and quality.

Submitting the app to Google Play costs $25 USD In terms of project development costs. Regarding my hardware costs: $20 speaker, $ 10 for a mini amplifier board and $8 for an aux cable cord.

The project's schedule was successfully carried out, and all activities were completed on time. In terms of quality, I believe that most of the tasks were carefully planned and completed extremely well, with some things that could have been done slightly better.

Did the team members involved manage their time wisely? Or everything was done last minute.

The execution of this deliverable was excellent. Each team member effectively used their time, and assigned assignments were successfully finished by the due date. Only minor adjustments and additions were made at the last minute.

Were there issues with the quality or compromises along the way?

There were no issues with the quality but we had to make a few compromises on the help screen as we couldn't find any additional functionalities to add.

Lessons learned, mistakes, and area of improvements.

I discovered that effective communication is essential while working on group projects like this, and it's crucial to keep organized and complete your tasks on time.

Coding is one thing I need to become more proficient at. Some of the features r equired a little more knowledge than I had, so I needed videos and walkthroughs to help me which were very time consuming.

Post-Mortem Retrospective

Sprint Retrospective

Sprint Retrospective

Sprint 5

December 5th, 2022

Paramand Mohabir

Start Doing.

I will start doing my work in the day instead of the night to maintain good thinking skills.

Stop Doing.

I need to stop overthinking and overanalyzing my code which can make me stressed and be a time consumer.

Continue Doing.

I should continue having good communication skills with my teammates and making sure all assigned work is completed as the scrum master.

Vladislav Vassilyev

Start Doing.

I will start implementing more tests into the project for better practices and performance

Stop Doing.

I will stop trying to add a new features to the app, instead I will concentrate on perfecting the existing once

Continue Doing.

I will continue to practice good team communication, and will be on top of the scheduled works

Paolo Brancato

Start Doing.

to improve my skills I should focus on my coding ability's. I find my skills can be lacking in coding for more advanced topics

Stop Doing.

I need to stop avoiding heavy task. I feel that I leave the heavy task for the last days. I need to start with the hardest task first.

Continue Doing.

I need to continue working as a team. I feel as me and my teammates had good communication and maintained in contact at all times.

Dave Patel

Start Doing.

I should start reading a lot more code.
I will start looking at other open-source apps and libraries, where I'll find many coding techniques and feature implementations I can use in my upcoming projects

Stop Doing.

I need to stop overthinking and overanalyzing tasks. It leads to unnecessary confusion, delay, and anxiety.

Continue Doing.

I need to continue being consistent. I made good use of my free time, and I believed that our team communicated effectively throughout the deliverable.

Technical Debt

In our project A.L.I.E, we addressed technical debt by attending team meetings, refactoring my code into their separate methods, and creating automated tests like Espresso test cases.
We followed the DRY principle in our app to avoid duplicating code; instead, the functionality should be implemented in another class and called upon there. Creating automated tests is a great way to avoid accumulating technical debt because they can be crucial to the software development process and can identify errors and grammatical mistakes in your code. Team meetings are essential for managing technical debt since they allow you to address current technical debts and try to come up with a management strategy.

Refactoring

In this project the two areas of refactoring I did were in the Home Fragment Screen and Settings Activity. The refactoring I've done in the Home Fragment Screen was moving repeated onClick listeners functionality for different objects into their own methods and then calling upon that method in the onClick for the chosen object. I refactored this because having all the functionality in the main onCreate can be kind of confusing and can make you repeat yourself like the design principle DRY which is a bad example of software development. In the Settings Activity, I refactored all of the code from the onCreate method and implemented each functionality into its own method and called this method in the main to have a well thought and organized code.

Project Suggestions

The things I liked about this Software Project are learning how to work in a team using various scrum methods like a scrum dashboard to have a well laid out design of sprints with stories that consist of tasks that have to be done, using the daily standup to manage what the team members have accomplished daily and a sprint retrospective to hold a meeting at the end of each sprint to evaluate what we did and what we can do better. I also like the experience of making a real-life application using Android Studio as I find it fun. Things I liked to be different in this course are the deadlines for the Deliverables. I find that the deadlines are kind of hard to manage with only 4 team members while taking seven other courses and doing all assignments and homework from other classes while doing this massive project. If we can get 2 additional teammates, it can improve time management and can improve software development in completing your application.

Daily Standup

Meeting #1 Nov 24th:

Meeting #2 Nov 26th:

Daily Standup

Sprint 5

November 26th, 2022

Paramand Mohabir

What did you work on yesterday?

I implemented my Spinner for Settings Screen so user can choose 4 LED options for the screen.

What will you work on today?

Today, I plan on finishing my Settings Screen with all functionality completed.

Any blockers?

No blockers at the moment.

Vladislav Vassilyev

What did you work on yesterday?

Absent

What will you work on today?

Absent

Any blockers?

Absent

Paolo Brancato

What did you work on yesterday?

Absent

What will you work on today?

Absent

Any blockers?

Absent

Dave Patel

What did you work on yesterday?

Created 3 new activities for HelpScreen
Added onClickListners for new screens
Created questions of FAQ page on google doc

What will you work on today?

I will code and design the layout of ContactUs page and the FAQ Page

I will create 1 sprint story with 5 tasks

Any blockers?

No

Meeting #3 Dec 3rd:

Daily Standup

Sprint 5

December 3rd, 2022

Paramand Mohabir

What did you work on yesterday?

I implemented SharedPref to all items in the settings screen to save and remember user selections.

What will you work on today?

Today, I plan on implementing Firebase DB on my Home Screen to save user data when switch is turned on and off for the components.

Any blockers?

No blockers at the moment.

Vladislav Vassilyev

What did you work on yesterday?

Absent

What will you work on today?

Absent

Any blockers?

Absent

Paolo Brancato

What did you work on yesterday?

Absent

What will you work on today?

Absent

Any blockers?

Absent

Dave Patel

What did you work on yesterday?

I organized the resource ID's and implemented night mode functionality in the help screen

Added landscape layouts for new screens

What will you work on today?

I will work on the ContactUs screen to send data to our FireBase Cloud aswell as some documentation.
I will also add two functionalities in help sceen.

Any blockers?

No

Meeting #4 Dec 5th:

Daily Standup

Sprint 5

December 5th, 2022

Paramand Mohabir

What did you work on yesterday?

I implemented functionality to Send Data to Firebase from the Switches on my Home Screen and receive data from the Firebase as well.

What will you work on today?

Today, I plan on helping my teammates with Junit 4 Test cases and fixing any minor errors/bugs in my application.

Any blockers?

Cannot be able to help teammates at the moment.

Vladislav Vassilyev

What did you work on yesterday?

Absent

What will you work on today?

Absent

Any blockers?

Absent

Paolo Brancato

What did you work on yesterday?

I added share preference to my LED Frag screen. second I added functionality so when user turns off led light. finally added if check statement.

What will you work on today?

I will fix fragment crashing. I will extracted string to hard code text, and I will fix register landscape with a new one.

Any blockers?

could not figure out with teammates on how to complete junit correctly.

Dave Patel

What did you work on yesterday?

- Implemented functionality in SpeakerFrag so user can pick and play audio files
- Implemented firebase connectivity in ContactUsActivity
- Implemented toast function and progressDialog in contactUs Activity

What will you work on today?

I will fix the layouts of multiple landscape screens, including any bugs and errors and I will work on documentation.

Any blockers?

No

Mobile App Development Progress

- Completed design and layout of Registration Screen
- Added Dependencies for Facebook Login.
- Added Multiple If Statements in CustomerReviewActivity.
- Added Multiple If Statements in Register Activity
- Implemented Pattern Matcher for Phone Number so the user has to enter a valid Number or else prompted
- Implemented Constructor for new Attributes name and phoneNo.
- Implemented getters and setters for new string values.
- Updated RegisterActivity.java so name and phoneNo can be uploaded to Firebase DB when the user is registered.
- Added Full Name Attribute on ProfileFrag.java and it can retrieve the current signed in user's full name.
- Added Phone Number Image View and Textview that will be used to display the current signed in user's phone number.
- Added Phone Number Attribute that will be used to display the current signed in user's phone number in ProfileFrag.java
- Created and designed subpages ContactUs Activity, FAQ Activity, AboutUs Activity in Help Screen
- Implemented night mode functionality in HelpScreen
- Created Landscape layout for ContactUs Activity, FAQ Activity, AboutUs Activity
- Implemented new Settings Screen. Beta Stages.
- Implemented Functionality to change Screen rotation in Settings
- Implemented new Seekbar UI design that will be used to change the volume.
- Implemented Functionality and UI of seekbar to control volume of device in SettingsActivity.java.
- Implemented Spinner with 4 Different LED Color Controls.
- Set radio button sliders on SmartFanFrag

- Created 2 test cases for inflater and added a new test for different classes
- Added Fan Control Setting in SettingsActivity.java.
- Added Fan Controller with Color changing text based if it's on or off.
- Implemented Shared Preferences into Screen Orientation Button in SettingsActivity.java
- Implemented Shared Preferences into Fan Switch On/Off in SettingsActivity.java.
- Implemented Shared Preferences into Spinner in SettingsActivity.java.
- Implemented SharedPref for Radio Buttons in SettingsActivity.java.
- Added Device Model Text by creating a new Method named getPhoneModel that will create a new string and append that to the textview.
- Implemented Object for Device Model into UserReviewClass.java
- Implemented the Object in CustomerReviewActivity.java so the User Model can now be Uploaded to the Firebase DB.
- Created new CustomDialog Class that will be used as a Loading Progress bar for The CustomerReviewActivity.java
- Implemented the Handler for Custom Alert Dialog and then Firebase DB data will be sent once it's finished loading.
- Fixed Minor Bug Fixes and Fixed Hardcoding of Text in SettingsActivity.java.
- Refactored the BluetoothActivity.java into OnClick Method
- Created multiple Espresso Test Cases in LedTest.java
- Created new Login Check Junit4 Test Class.
- Add Snackbar Options to LED RadioGroup with different colors for when the item is selected.
- Created a Floating Button for Home Screen in Portrait UI and Landscape UI.
- Implemented Voice Functionality For Floating Button on Home Screen
- Created new class UserContactUs, added objects to store user info in firebase db
- Implemented firebase connectivity in ContactUsActivity
- Implemented toast function and progressDialog in contactUs Activity
- Implemented functionality in SpeakerFrag so user can pick and play audio files
- Added Database Reference To all Switches on HomeFrag to store user data on Firebase DB and remember user selections from Firebase

- Added functionality so when the user turns off LED light will default to white and you will be unable to switch the mode to be either RGB or choose a color through the color picker.
- Implemented Shared preferences into my led frag screen with mode buttons
- Cleaned up Database References and Added all Items in Folders. All register information will be stored into the Account Information Folder. Also all Component data from the Home Screen will also be stored into a Components folder under current User data.
- Created Junit4Test with 5 test cases
- Added Espresso Case for Invalid Login, Invalid Email, Invalid Password
- Added Espresso Case for Invalid Password.
- Added New Espresso Test Class named Register Test and added 1 Espresso Case for Invalid Password and you need 1 special char.
- Added 1 new Espresso Case for Invalid Password and you need at least 1 digit.
- Added 1 new Espresso Case for Invalid Password and you need at least 1 capital alphabet letter
- Added 1 new Espresso Case for Invalid Password and you need at least 1 digit.
- Added New Espresso Test Class named Register Test and added 1 Espresso Case for Invalid Password and you need 1 special char.
- Added Espresso Case for Invalid Password.