

CENG-322

DELIVERABLE 2

Team name: F.R.I.E.N.D.S.& CO.

Project: Smart Parking

Members:

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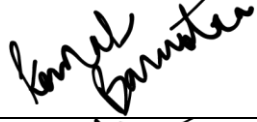



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Signatures:

| Name | ID | Signature | Effort |
|----------------------|-----------|------------------------------------------------------------------------------------|--------|
| Komal Bamotra | N01426087 |  | 100% |
| Ramesh Narayan Gaire | N01452430 |  | 100% |
| Roshan Shrestha | N01457532 |  | 100% |
| Rushi Bhandari | N01464259 |  | 100% |

Project Scope and goals:

The development of the Internet of Things (IoT) has made it possible to seamlessly integrate complex solutions into frameworks and practises for urban administration and management.

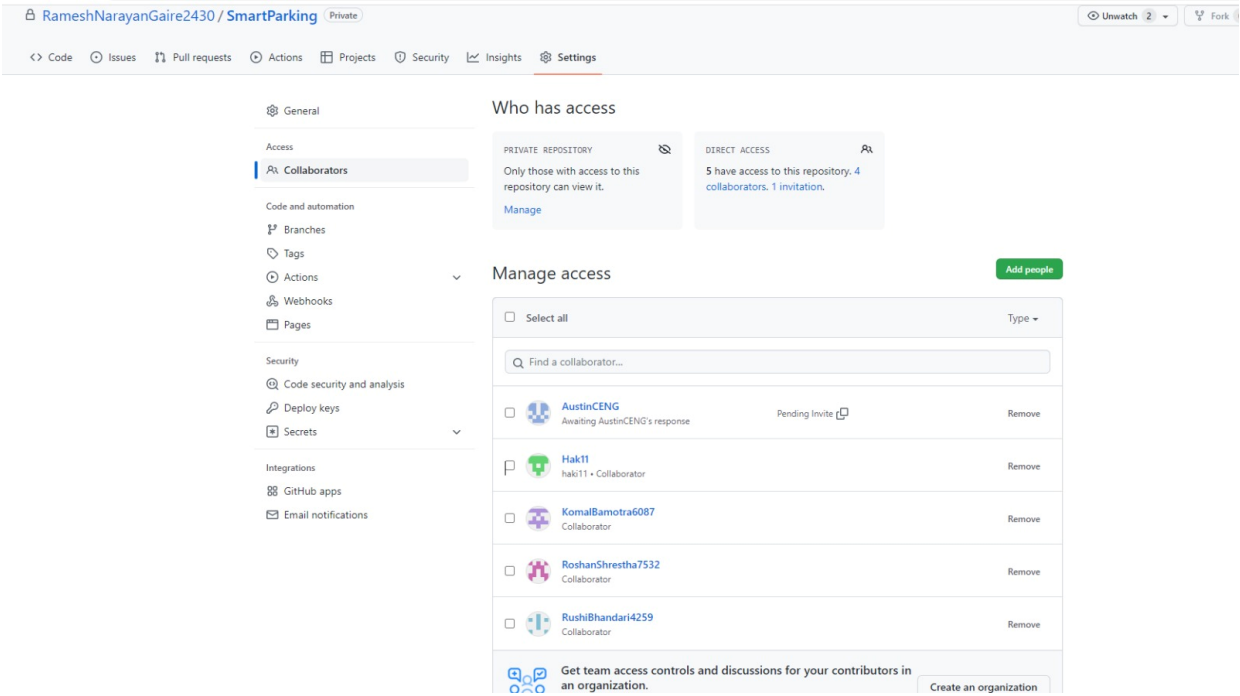
Our main objective is to make parking convenient spaces for working-class individuals in crowded cities. Due to an increase in the number of cars being owned by city residents, parking is becoming an issue for everyone. The development of a smart parking application powered by the Internet of Things (IoT) provides parking managers and drivers with crucial information about available spots as well as related services like reservations of the spots.

GitHub Repo link and Strategy:

<https://github.com/RameshNarayanGaire2430/SmartParking.git>

Git has a variety of different "merge strategies". It can be used to locate a base commit. We applied the commit, push and pull strategy, to update our android studio project.

Screenshot of invitation:



Stories and tasks:

Story 1:

SmartParking Roadmap

Main Table | Timeline | Dashboard | +

New Task | Search | Person | Filter | Sort | Hide | ...

Easy accessibility to register and log in as a user

| Task | Person | Status | End Date | Priority | Size |
|---------------------------------------|--------|--------|----------|----------|--------|
| Registration step for the new users | R | Done | Oct 6 | High | Small |
| Login functionality | RS | Done | Oct 6 | High | Medium |
| Code to access forgotten password | RS | Done | Oct 6 | High | Large |
| save account settings | R | Done | Oct 6 | Medium | Medium |
| verification of account through gmail | RS R | Done | Oct 6 | High | Medium |
| + Add Task | | | | | |

Story 2:

✓ Home screen dashboard and layout

| <input type="checkbox"/> | Task | | Person | Status | End Date | Priority | Size |
|--------------------------|------------------------------------------|---|--------|--------|----------|------------|--------|
| <input type="checkbox"/> | Layout and icons for better accesibility | + | N | Done | Oct 9 | High | Medium |
| <input type="checkbox"/> | Booking tab for users | + | R | Done | Oct 9 | Critical ⚠ | Medium |
| <input type="checkbox"/> | Feedback option for users | + | R N | Done | Oct 9 | Low | Medium |
| <input type="checkbox"/> | Share the app button | + | R | Done | Oct 9 | Medium | Medium |
| <input type="checkbox"/> | Customer Support for users | + | N | Done | Oct 9 | High | Medium |
| <input type="checkbox"/> | + Add Task | | | | | | |
| | | | | | | | |

Story 3:

... ✓ Navigation drawer options to make work easy for users 5 Tasks

| <input type="checkbox"/> | Task | | Person | Status | End Date | Priority | Size |
|--------------------------|------------------------------------|---|--------|--------------------|----------|------------|--------|
| <input type="checkbox"/> | Booking slots screen creation | + | R | Waiting for review | Oct 8 | High | Large |
| <input type="checkbox"/> | Booking details screen creation | + | R | Done | Oct 8 | Critical ⚠ | Large |
| <input type="checkbox"/> | Advanced settings options for user | + | RS | Done | Oct 8 | High | Large |
| <input type="checkbox"/> | Customer Support screen | + | RS | Working on it | Oct 8 | Medium | Medium |
| <input type="checkbox"/> | Feedback screen | + | RS | Working on it | Oct 8 | Medium | Medium |
| <input type="checkbox"/> | + Add Task | | | | | | |
| | | | | | | | |

Story 4:

✓ Creation of cloud database for storing data of users

| <input type="checkbox"/> | Task | | Person | Status | End Date | Priority | Size |
|--------------------------|--------------------------------------|---|--------|--------|----------|----------|--------|
| <input type="checkbox"/> | Create firebase cloud server | + | N | Done | Oct 10 | High | Medium |
| <input type="checkbox"/> | Trial and error logging to db | + | N | Done | Oct 10 | High | Medium |
| <input type="checkbox"/> | source code to connect db and app | + | R | Done | Oct 10 | High | Large |
| <input type="checkbox"/> | design of register and login screens | + | N | Done | Oct 10 | Medium | Large |
| <input type="checkbox"/> | storage of data on firebase | + | N R | Done | Oct 10 | Low | Small |
| <input type="checkbox"/> | + Add Task | | | | | | |
| | | | | | | | |

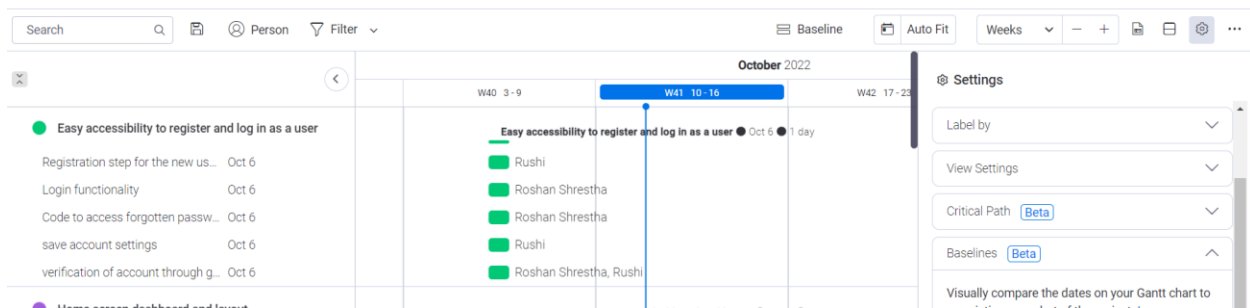
Story 5:

Design of the screens and extra features

| <input type="checkbox"/> | Task | | Person | Status | End Date | Priority | Size |
|--------------------------|------------------------------------------|--|--------|---------------|----------|----------|--------|
| <input type="checkbox"/> | menu action bar on the toolbar | | | Done | Oct 8 | Low | Small |
| <input type="checkbox"/> | QR code generation for users | | | To be done | Oct 17 | Critical | Large |
| <input type="checkbox"/> | SnackBar-undo the action by user | | | To be done | Oct 17 | High | Large |
| <input type="checkbox"/> | payment options for user | | | To be done | Oct 17 | Critical | Large |
| <input type="checkbox"/> | users can change the resolution and mode | | | Working on it | Oct 15 | Medium | Medium |
| <input type="checkbox"/> | + Add Task | | | | | | |

Dashboard:

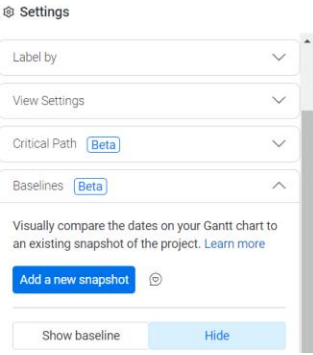
Gantt



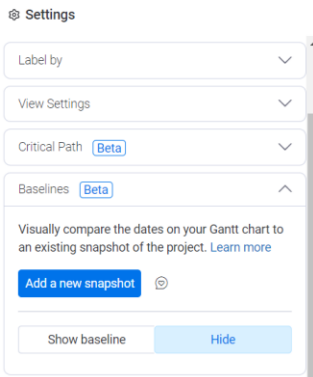
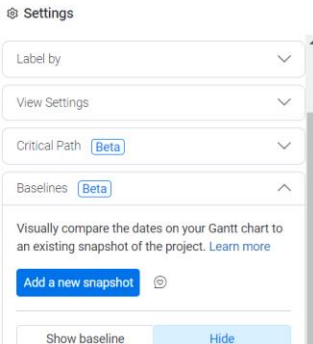
Gantt



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DoD criteria:

We discovered these 5 DoD elements after many trial-and-error coding techniques for various source codes for screens and functionality, and they were ideal for our Android Studio application of SmartParking. Each of the user stories we chose was broken down into five tasks that each team member was required to complete by the end of the day.

We initially struggled to keep up with the tasks, but with the help of our teammates' support and our own thoughts, we were able to finish them. In addition, Monday.com was used to check and update task statuses.

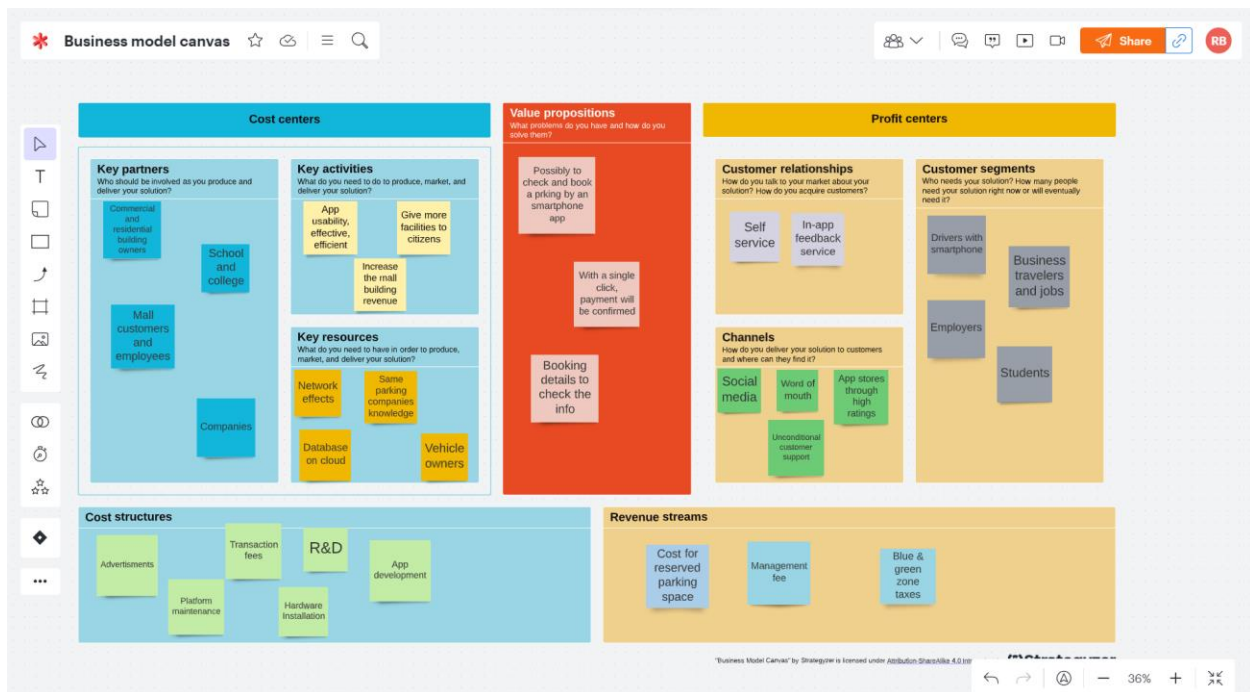
We were able to alter the status of tasks from being worked on to done with a lot of hard effort in android studio as well as for the documentation portion.

List of items included in DoD:

As of right now, we are aware that the term "done" refers to a predetermined list of tasks that must be finished before a project or user-story can be said to be finished. For the DoD, we included these things:

- ✚ Regression tests run and pass
- ✚ Acceptance criteria is verified during testing.
- ✚ Unit testing-written and passed.
- ✚ Defects are in an "acceptable state" to the product owner.
- ✚ Coding tasks completed.

Business Model Canvas:



Link to the website:

[Business model canvas: Lucidspark](https://lucidspark.com/business-model-canvas/)

DB on cloud: FireBase Screenshot

The screenshot shows the 'Project settings' page for a project named 'SmartParking'. The 'Users and permissions' tab is selected. The page displays a list of members with their email addresses and roles. The roles are all 'Owner'. There is a search bar at the top and an 'Add member' button. A link to 'Advanced permission settings' is at the bottom right.

| Member | Roles |
|---------------------------------------------|-------|
| komal.bamotra06@gmail.com | Owner |
| narayanamesh22@gmail.com | Owner |
| roshanksth@gmail.com | Owner |
| Rushi Bhandari bhandarirushi13@gmail.com | Owner |

10 service accounts also have access to this project

[Advanced permission settings](#)

The screenshot shows the 'Authentication' page. The 'Users' tab is selected. The page displays a table of users with their email addresses, providers, created dates, signed-in dates, and user IDs. There is a search bar at the top and an 'Add user' button. The table has 4 rows of data.

| Identifier | Providers | Created | Signed in | User UID |
|-----------------------------|-----------|--------------|--------------|-------------------------------|
| komal.bamotra06@gmail.c... | Google | Oct 11, 2022 | | vGcVDndpLcQIAQCpniwJnTqHAY2 |
| narayanamesh22@gmail... | Google | Oct 11, 2022 | | MWCtEq3yusRlrp0CBYQt5sCqxGB3 |
| roshanksth@gmail.com | Google | Oct 11, 2022 | | nes8W8u0QyPC1hGVy5ctinMbD4... |
| bhandarirushi13@gmail.co... | Google | Oct 11, 2022 | Oct 11, 2022 | 1wsdsX8StfX8T241Yohi0LIInac2 |

Rows per page: 50 1 - 4 of 4

The screenshot shows the 'Storage' page. The 'Files' tab is selected. The page displays a file browser interface with a search bar and an 'Upload file' button. The file list is empty, showing 'There are no files here yet'.

gs://smartparking-ae1fd.appspot.com

Upload file

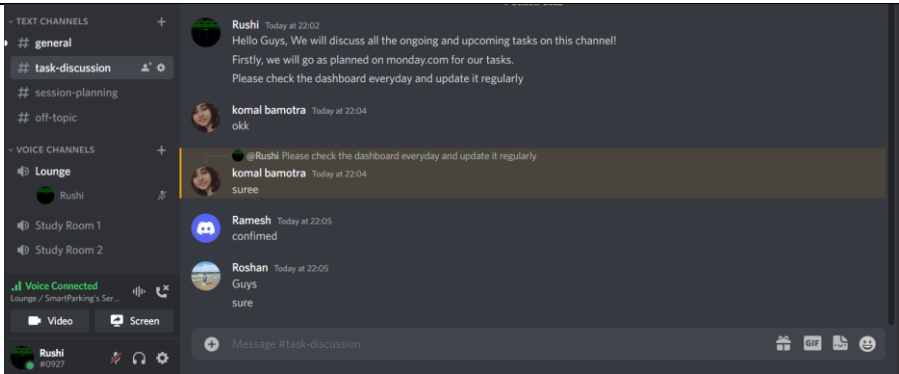
| Name | Size | Type | Last modified |
|-----------------------------|------|------|---------------|
| There are no files here yet | | | |

New features and functionality:

For the deliverable 2, this time we added some features and functionality like:

- Snackbar tool for the users to undo the action within a small period
- Design and layout of all the screens on the application
- Register and login page for users
- Settings options to change mode of the application
- Creation of database on cloud

Table record for stand-ups:

| Tools used | Records and screenshots: |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>Discord tool:</p> <p>To discuss the problems regarding assigning of task and completion of the same.</p> <p>Date: 06/10/2022</p> |  |

For daily stand-ups and discussion of the android application

[illegible]

To know the updates of tasks and general discussion about the project.

The screenshot is divided into two main sections. On the left is a Discord interface for a server named 'SmartParking'. The server has a 'welcome-and-rules' banner and several channels: #goals, #general, #task-discussion, #session-planning, #off-topic, and a voice channel named 'Lounge'. The 'Lounge' channel is active, showing a list of members: Ramesh (LIVE), Rushi, komal bamotra, and Roshan. At the bottom of the Discord window, there is a 'Voice Connected' status for the 'Lounge / SmartParking's Ser...' channel, and buttons for 'Video' and 'Screen' sharing.

On the right is a web browser displaying a project management tool titled 'SmartParking Roadmap'. The browser's address bar shows the URL 'https://huberman60226.mindbody.com/boards/1332/1332/'. The tool has a sidebar with a 'Main workspace' and a 'SmartParking Roadmap' section. The main area shows a 'Task' list with columns for 'Person', 'Status', 'End Date', and 'Priority'. The tasks are as follows:

| Task | Person | Status | End Date | Priority |
|------------------------------|----------|--------------------|----------|------------|
| Screen layout and icons | Person 1 | Waiting for review | Oct 9 | High |
| About the application screen | Person 2 | Done | Oct 9 | Critical & |
| menu bar creation | Person 3 | Done | Oct 9 | Low |
| booking details screen | Person 4 | Waiting for review | Oct 9 | Medium |
| Share the app button | Person 5 | Waiting for review | Oct 9 | High |

Below the task list, there is a section titled 'Navigation drawer options to make work easy for users' with a table of tasks:

| Task | Person | Status | End Date | Priority |
|---------------------------------|----------|--------------------|----------|------------|
| Booking lists screen creation | Person 1 | Waiting for review | Oct 9 | High |
| Booking details screen creation | Person 2 | Waiting for review | Oct 9 | Critical & |

At the bottom of the browser window, there is a taskbar with various application icons, including a video player, a Discord icon, and a web browser icon.

