

CENG 322

Deliverable 2

Team: The DJKM

Project :The Smart Lock

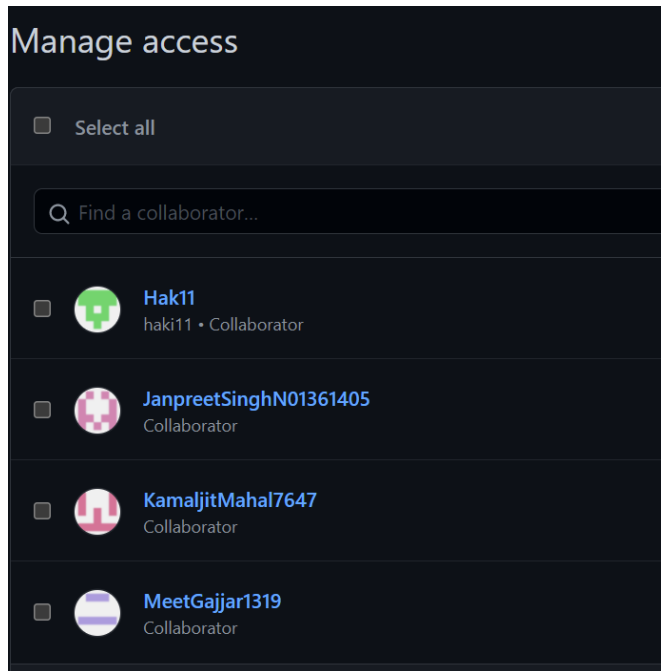
Team Members

- Dillon Permaul N01372657
- Janpreet Singh N01361405
- Kamaljit Mahal N01377647
- Meet Gajjar N01391319

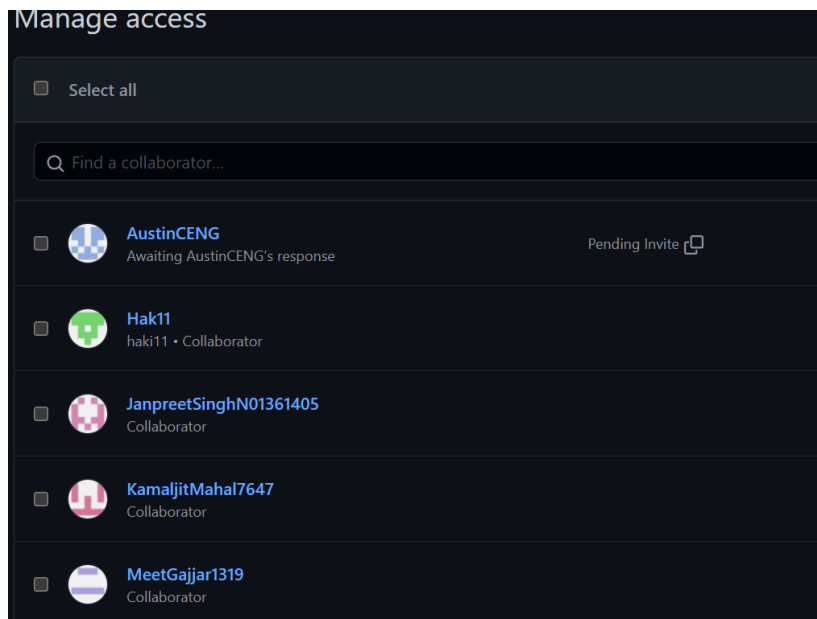
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Screenshot of github invitation:



Hardware CENG317 PROF Austin:



Project Background and Description

The project is a home security smart lock that can be unlocked and locked using a mobile device and a RFID Card. This can be used in people's everyday lives as many people tend to lose their keys or the combinations to locks. This smart lock is very convenient and user friendly as all you need to unlock the lock is either your mobile device or an RFID Card.




App features Include:

- Lock and Unlock the door
- Displays Weather (temperature and humidity)
- Displays time and date
- Set the duration of locked and unlock time (Scheduled Times)
- Track the amount of times door has been locked and unlocked by user
- Detects Motion when a person is near the door

Hardware Used:

- Raspberry Pi 4
- RFID sensor module
- Servo Motor
- Motion Sensor
- Temperature sensor

Members Info and Participation

Name	ID	Signature	Effort
Meet Gajjar	N01391319		100% 1) Motion screen 2) Setting Screen
Kamaljit Mahal	N01377647		100%
Janpreet Singh	N01361405	J.S	100%
Dillon Permaul	N01372657		100%

GitHub Repository Link:

<https://github.com/dillonPermaul2657/TheSmartLock.git>

Breakdown of Tasks

Meet Gajjar:

Epic: In order to innovate the door lock we would use a mo...

Tasks

Person

Status

Timeline

Size

Validate Setting screen

5

MG

Done

Oct 4 - 11

large

Subitems

Owner

Status

Date

Size

Create Night mode to turn off/on

MG

Done

Oct 5

Medium

create Portrait/Landscape mode

MG

Done

Oct 6

Small

Create Notification switch

MG

Done

Oct 7

Small

create mode to select a language

MG

Done

Oct 8

Medium

create toast messge for night mode

READY

Oct 8

Medium

+ Add Subitem

Validate Motion Screen

5

MG

Done

Oct 4 - 11

large

Subitems

Owner

Status

Date

Size

add a button to turn off/on the motiob sensor

MG

Done

Oct 5

Small

add a image of motion sensor

MG

Done

Oct 6

Small

add a Textview of Motion Sensor

MG

Done

Oct 7

Small

add a textview to count the Motion

MG

Done

Oct 8

Medium

add new image for motion tab

MG

Done

Oct 10

Small

+ Add Subitem

Dillon Permaul:

Epic: In order to innovate the door lo...

Tasks

Subitems

Owner

Person

Status

Timeline

Size

Validate DashBoard Screen

7

DP

DP

Done

Oct 7 - 11

Medium

Subitems

Owner

Status

Date

Size

Create Lock image button

DP

Done

Oct 8

Small

Create Unlock image Button

DP

Done

Oct 8

Small

Create a toast message for lock button

DP

Done

Oct 9

Small

Create a toast message for unlock button

DP

Done

Oct 9

Small

Change background colour when button is pre...

DP

Done

Oct 9

Medium

add image

DP

Done

Oct 10

Small

Added java code for functionality of buttons

DP

Done

Oct 9

Medium

Kamaljit Mahal:

Epic: In order to innovate the door lo...							Tasks	Subitems Owner	Person	Status	Timeline	Size	⊕
Validate Home Screen							7	DP KM	KM	Done	Oct 7 - 11	Medium	
Subitems								Owner	Status	Date	Size	⊕	
Create Splash screen								DP	Done	Oct 7	Medium		
add an image of door								KM	Done	Oct 8	Small		
Create textview of welcome messge								KM	Done	Oct 9	Small		
Create a button to request runtime permission								KM	Done	Oct 9	Small		
Display Current Time and Date								KM	Done	Oct 9	Small		
Add java code for runtime permission									Done	Oct 10	Large		
Add Java code for time and date									Done	Oct 10	Large		
+ Add Subitem													

Janpreet Singh:

Epic: In order to innovate the door lo...							Tasks	Subitems Owner	Person	Status	Timeline	Size	⊕
Validate Notification Screen							6			Done	Oct 7 - 11	Medium	
Subitems								Owner	Status	Date	Size	⊕	
Create Notification Screen									Done	Oct 8	Medium		
Change background colour to be uniformed									Done	Oct 9	Small		
Design and code layout xml file									Done	Oct 10	Medium		
add image									Done	Oct 10	Small		
Add Text style, font, color									Done	Oct 10	Small		
Convert hardcode to string.xml									Done	Oct 11	Small		
+ Add Subitem													

DoD criteria:

The conditions and criteria that a software solution or feature must manage to achieve in order to be accepted by the client are included in the Definition of Done (DoD). When something is finished, it can be released without more effort or testing.

Business Model Canvas

Key Partners

- Investors
- Regulators and governments
- Financial Partners

Key Activities

- Keep prices competitive
- Provide Customer Support
- Conduct User Research
- Expand to different areas of smart home security

Value Propositions

- Simple and easy to use app to control door lock
- Competitive prices compared to the competition
- No need of hard keys
- Makes it more convenient as you can control almost anything with your smartphone

Customer Relationship

- Self-Service
- Customer Support

Customer Segments

- People looking for affordable smart locks
- People preferring mobile device to lock/unlock the door
- People who want automate home security

Key Resources

- Hardware Engineer
- Software Developer
- App for users

Channels

- Social Media
- Word of mouth
- App stores through high ratings
- Online tech reviewers (Youtubers, The Verge, Business Insider, Cnet)
- Ads across multiple platforms

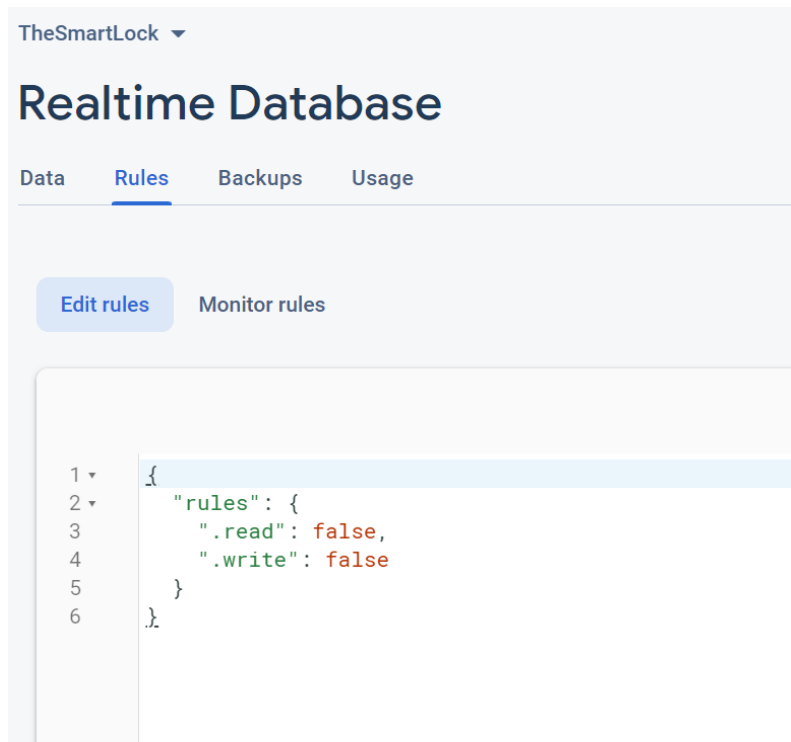
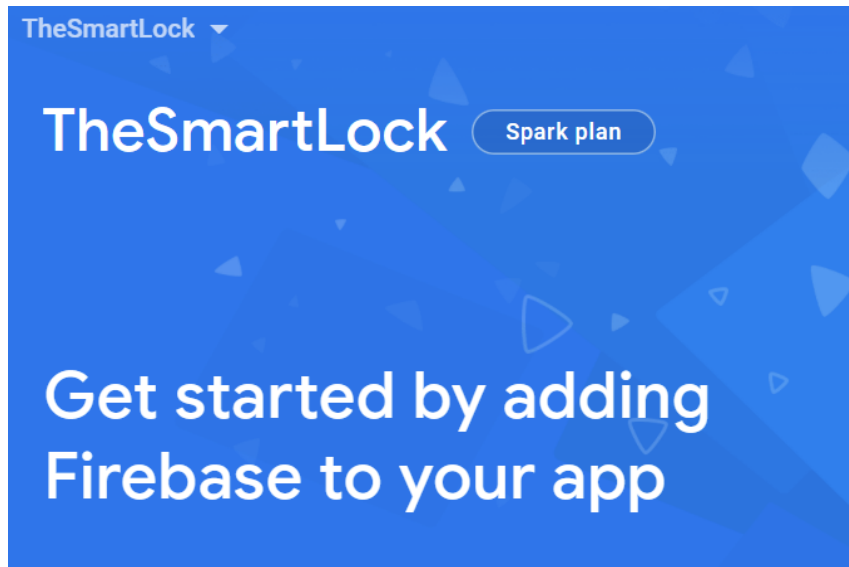
Cost Structure

- Advertisement and Marketing
- Product development and maintenance

Revenue Streams

- Product price
- Product Profit
- Affiliate marketing

Screenshot of Database using Firebase



Coding work progress since deliverable 1:

- Implemented a splash screen when user enters app
- Updated home screen with welcome message, image and run time permissions
- Updated dashboard screen with lock and unlock functionality
- Created motion screen to detect and notify user of motion
- Created Settings menu to control app options
- Updated text styles, background colours and alignment of each screen

A Table records the daily stand-ups outcome, use any tool you like, include a screenshot into the document. Table, include date and info:

Tool used: invisionapp.com

Daily Standup			
Sprint 2			
October 6th 2021			
Janpreet Singh	Dillon Permaul	Kamaljit Mahal	Meet Gajjar
What did you work on yesterday? Nothing	What did you work on yesterday? Nothing	What did you work on yesterday? Nothing	What did you work on yesterday? Nothing
What will you work on today? Will discuss with other team members on what to work on in sprint 2	What will you work on today? Will discuss with other team members on what to work on in sprint 2	What will you work on today? Will discuss with other team members on what to work on in sprint 2	What will you work on today? Will discuss with other team members on what to work on in sprint 2
Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment

Daily Standup

Sprint 2

October 8th 2021

Janpreet Singh	Dillon Permaul	Kamaljit Mahal	Meet Gajjar
What did you work on yesterday? Set up Monday and break down of tasks	What did you work on yesterday? Updated fr/strings.xml	What did you work on yesterday? Create deliverable 2 document	What did you work on yesterday? Updated strings.xml
What will you work on today? Change background colour of each screen to light grey	What will you work on today? Creating the splash screen	What will you work on today? Researched how to include run time permissions.	What will you work on today? Review how to add a new fragment and menu
Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment

Daily Standup

Sprint 2

October 9th 2021

Janpreet Singh	Dillon Permaul	Kamaljit Mahal	Meet Gajjar
What did you work on yesterday? Change background colour of each screen to light grey	What did you work on yesterday? Created Splash Screen for app	What did you work on yesterday? N/A	What did you work on yesterday? N/A
What will you work on today? Adding images to different screens and fix layout issues	What will you work on today? Adding image buttons called lock and unlock with a toast message	What will you work on today? Create textview for time and date in real-time	What will you work on today? Adding settings screen and adding a menu for configuration
Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment	Any blockers? No blockers at the moment

Daily Standup

Sprint 2

October 10th 2021

Janpreet Singh

What did you work on yesterday?

Added images to different screens and fix layout issues

What will you work on today?

Change font sizes and text colours all through the app

Any blockers?

No blockers at the moment

Dillon Permaul

What did you work on yesterday?

Added image buttons called lock and unlock with a toast message

What will you work on today?

Creating a Firebase database and adding the dependencies

Any blockers?

No blockers at the moment

Kamaljit Mahal

What did you work on yesterday?

Created textview for time and date in real-time

What will you work on today?

Create landscape version of home activity and add a button to request run time permissions

Any blockers?

No blockers at the moment

Meet Gajjar

What did you work on yesterday?

Added settings screen and added a menu for configuration

What will you work on today?

Change settings screen to motion screen and add to the setting menu

Any blockers?

No blockers at the moment

Daily Standup

Sprint 2

October 11th 2021

Janpreet Singh

What did you work on yesterday?

Changed font sizes and text colours all through the app

What will you work on today?

Work on deliverable 2 document and update Monday Tasks and breakdowns

Any blockers?

No blockers at the moment

Dillon Permaul

What did you work on yesterday?

Creating a Firebase database and adding the dependencies

What will you work on today?

Updated strings.xml/fr and work on deliverable 2 document

Any blockers?

Firebase database

Kamaljit Mahal

What did you work on yesterday?

Created landscape version of home activity and added a button to request run time permissions

What will you work on today?

Fixing the landscape version of home fragment and work on deliverable 2 document

Any blockers?

No blockers at the moment

Meet Gajjar

What did you work on yesterday?

Changed settings screen to motion screen and added to the setting menu

What will you work on today?

Update motion screen and work on deliverable 2 document

Any blockers?

No blockers at the moment

