Group - 01
App Controlled Autonomous Cleaning Robot
(Software data flow diagram)

```
                    ( Open Android
                      Application )
                           |
                           v
                    < Logged out           No
                      from previous  ------------->
                      session? >
                           |
                          Yes
                           |
                           v
  [Save data in] ----> [ Login Page ] <----
  [  Firebase  ]             |
         ^                   v
         |            < Already
         |         No   registered? >
  [Sign up now] <------
         |                   |
         v                  Yes
  / Input User Email  /      |
  / Input User Password/     v
  / Re-enter Password /   / Input User Email /
         |               / Input User Password /
         v                   |
   [  Confirm  ]             v
   [ registraion]      [ Dashboard ] <----
                             |
                             v
  [Voice Command] <--  < Select one  -->  [ Home ]
         |              activity >
   (+) <-- [Find ACR] <--            -->  [ Sign out ]
         |                   |
   [View Notifications] <--  v
         |                  (1)
        (B)
```

(B)

(1)

```
                                    ( 1 )
                                      |
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   ↓          ↓           ↓           ↓           ↓           ↓
┌────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
│Settings│ │Controll  │ │Map your  │ │Set       │ │Filter    │ │View      │
│        │ │ACR       │ │floor     │ │Schedule  │ │Objects   │ │Statistics│
│        │ │Manually  │ │          │ │          │ │          │ │          │
│        │ │from any  │ │          │ │          │ │          │ │          │
│        │ │remote    │ │          │ │          │ │          │ │          │
│        │ │location  │ │          │ │          │ │          │ │          │
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```

- Settings
- Controll ACR Manually from any remote location → (A)
- Map your floor
  - Input Legth Input Width
  - Map your floor
  - Show Map Grid
  - Set specific location on the grid
- Set Schedule
  - Add new schedule
  - Turn on reminder
- Filter Objects
  - Select Image from Gallery/ Capture image
  - Add image
- View Statistics
  - Select type
  - Select time
  - Show Statistics

Settings → Choose one option

Change password

Add email

- Add another email
  - Input new email Input password
  - Add new email
- Change Password
  - Input old passsword Input new password Re-enter password
  - Update Password

(A)
- Trun on video streaming
  - Left/Right/ Fwd/Bwd?
    - Left → Turn Left
    - Right → Turn Right
    - Fwd → Go Forward
    - Bwd → Go Backward

(+)

(B)

Store/Update data in Firebase

END