

# QI Project

Team A

*Document for 2018 summer IoT Project*

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# 1. Introduction of Team A

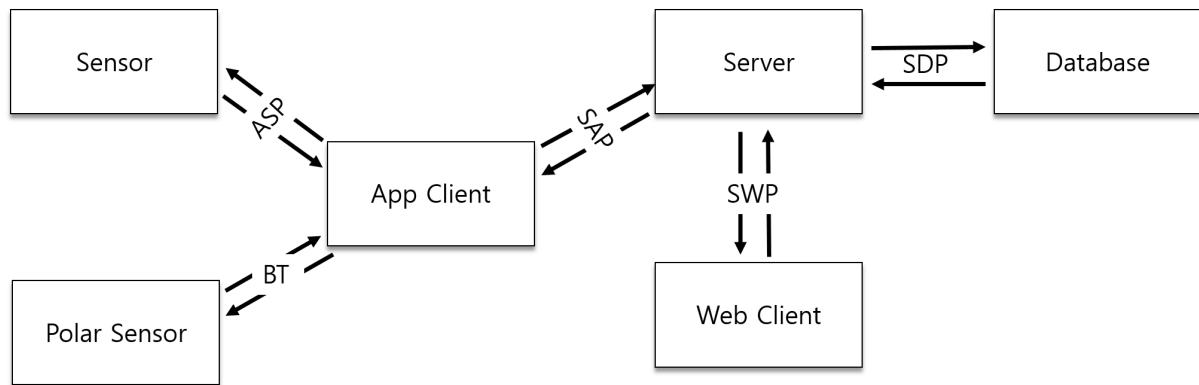
## 1.1 Team Member List

Name	Affiliation	Part
<b>Joowon Byun</b>	<b>Pusan University</b>	<b>Web / Team Leader</b>
<b>Umji Choi (Wendy)</b>	<b>Keimyung University</b>	<b>Web</b>
<b>Doyoung Ha (James)</b>	<b>Keimyung University</b>	<b>App</b>
<b>Janghyeon Song (Jack)</b>	<b>Chosun University</b>	<b>App</b>
<b>Junho Suk (Juno)</b>	<b>Keimyung University</b>	<b>Sensor</b>

## 1.2 Workspace

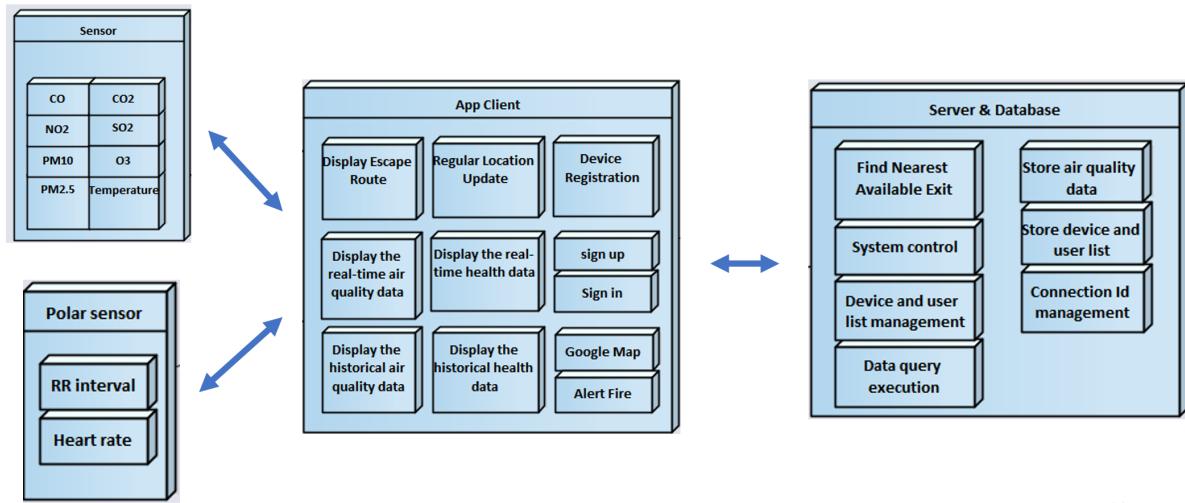
- Server and Web Side : [https://github.com/Joowon0/BuildingRun\\_server](https://github.com/Joowon0/BuildingRun_server)
- App Side : <https://github.com/Joowon0/BuildingRun>

## 2. Reference Model

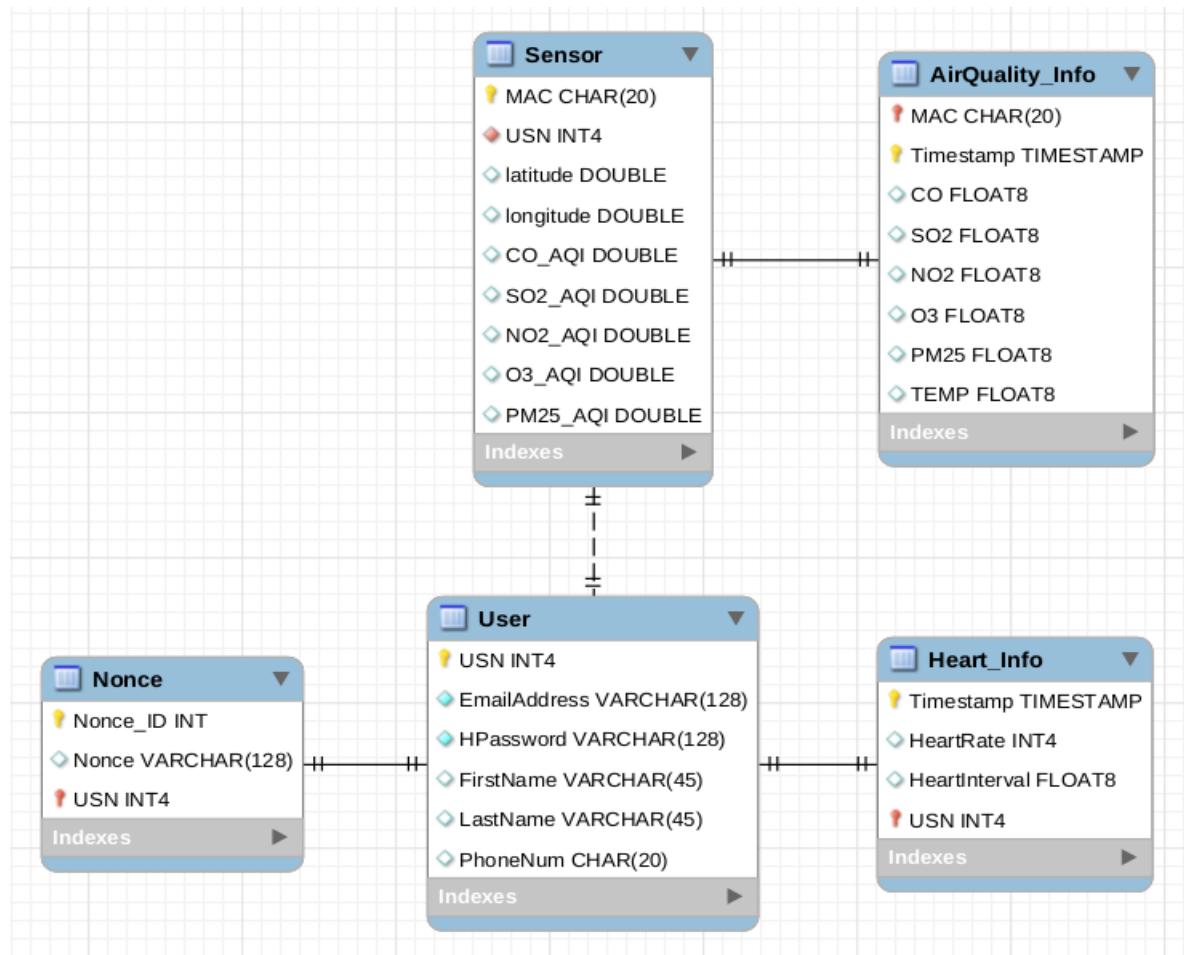


ASP: App client-Sensor Protocol  
SAP: Server-App client Protocol  
SWP: Server-Web client Protocol  
SDP: Server-Database Protocol  
BT : Bluetooth connection

### 3. System Architecture



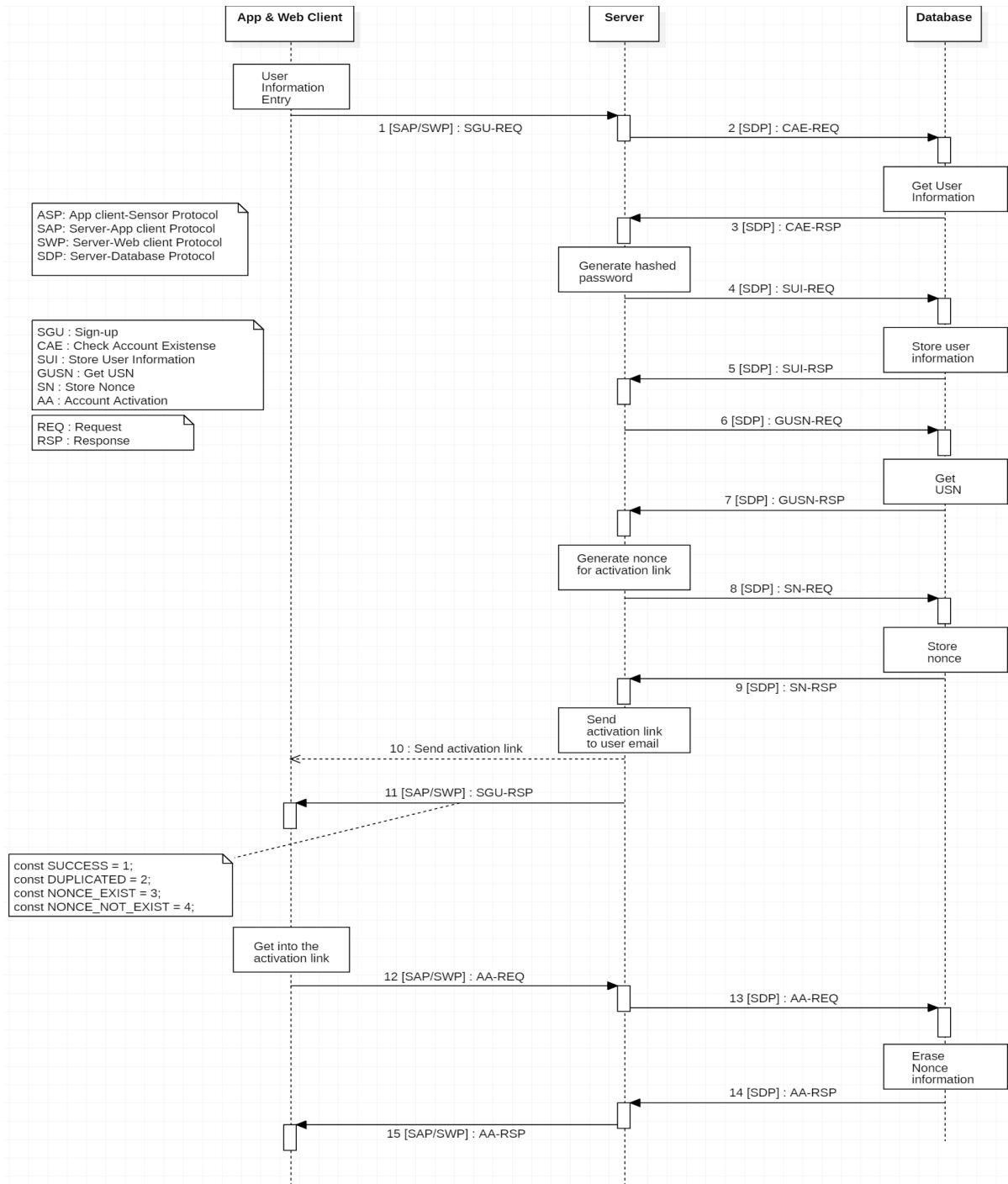
## 4. ER Model



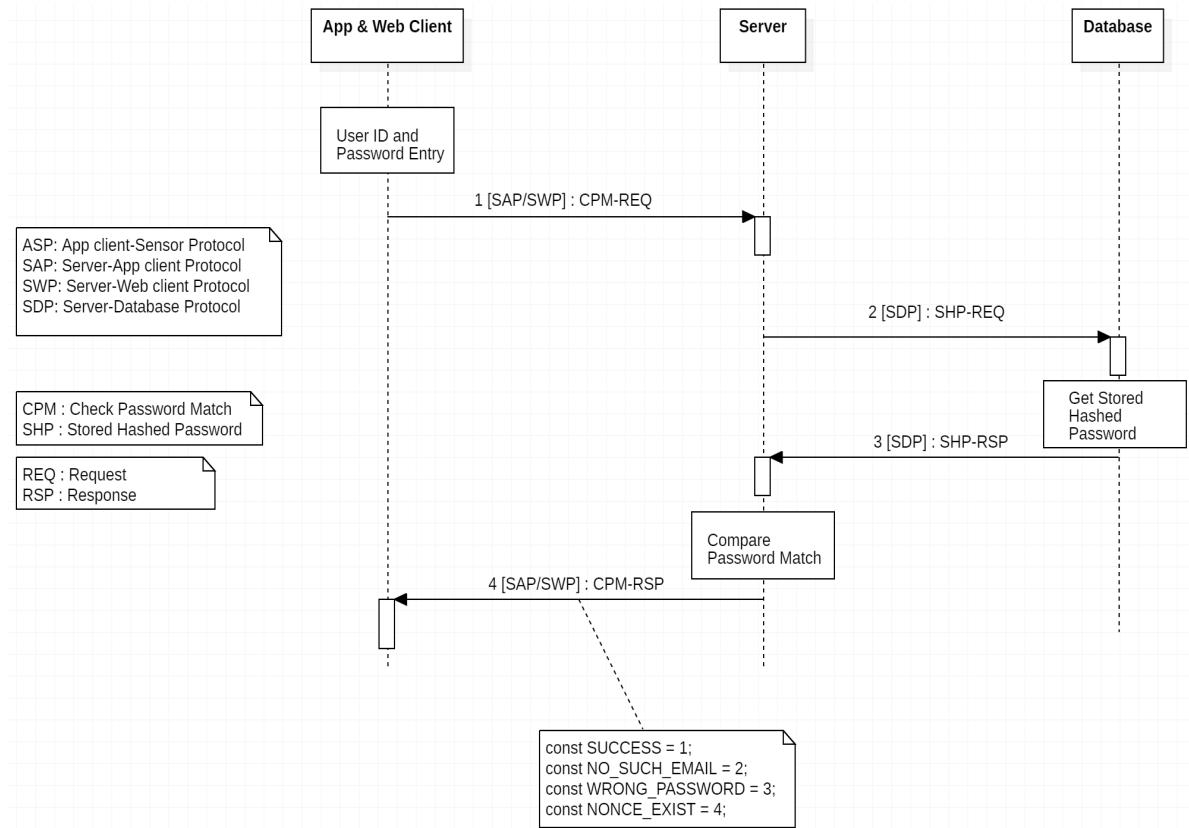
## 5. Procedure

## 5.1 User Management

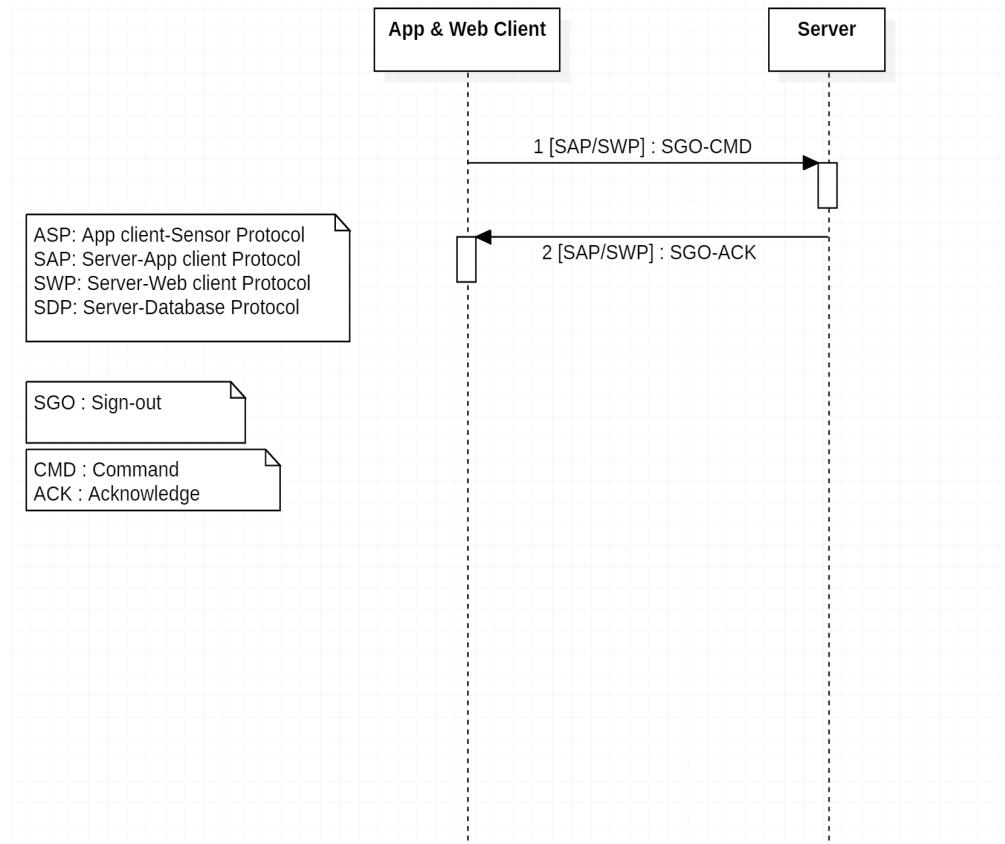
### 1) Sign-up



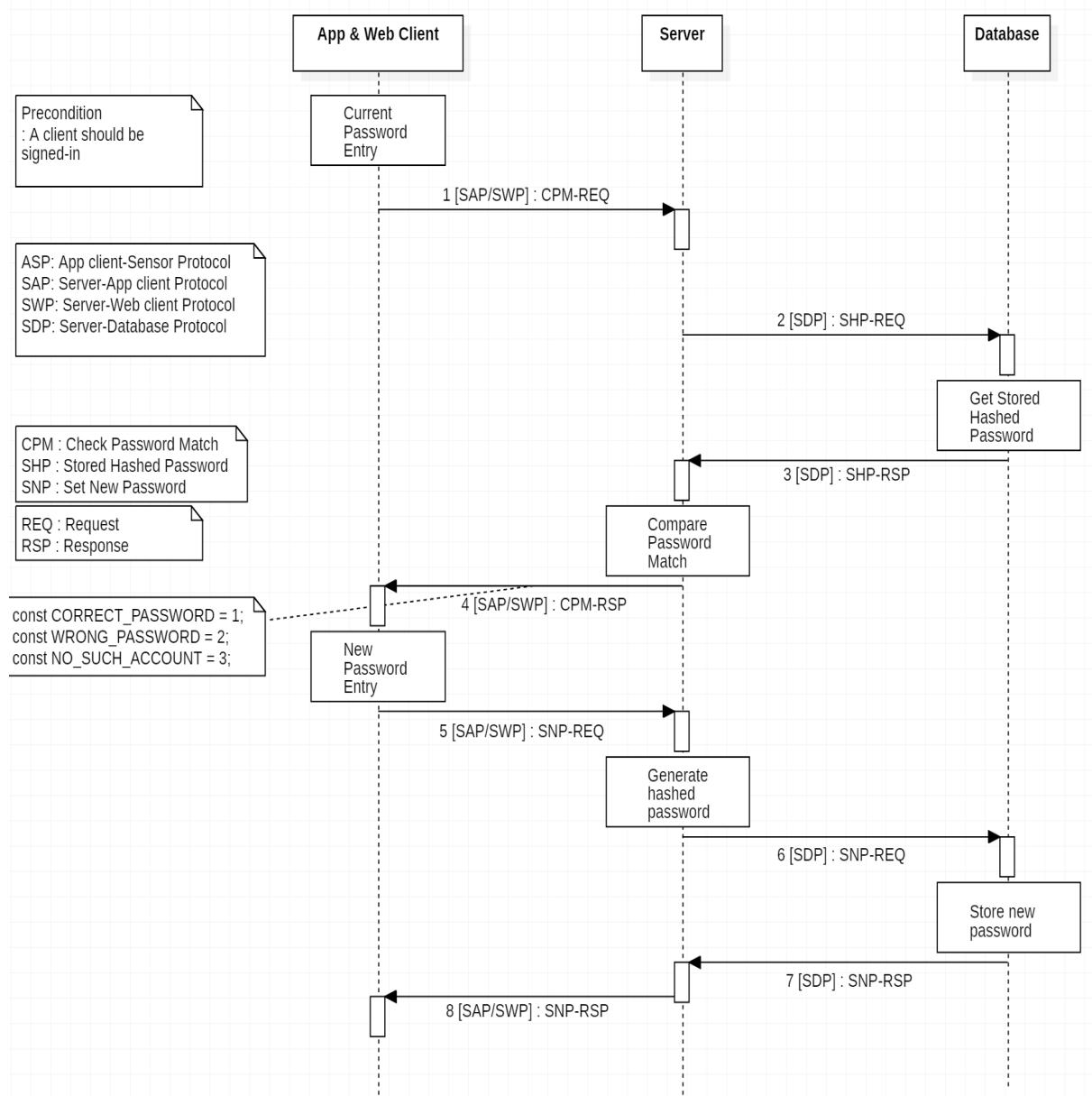
### 2) Sign-in



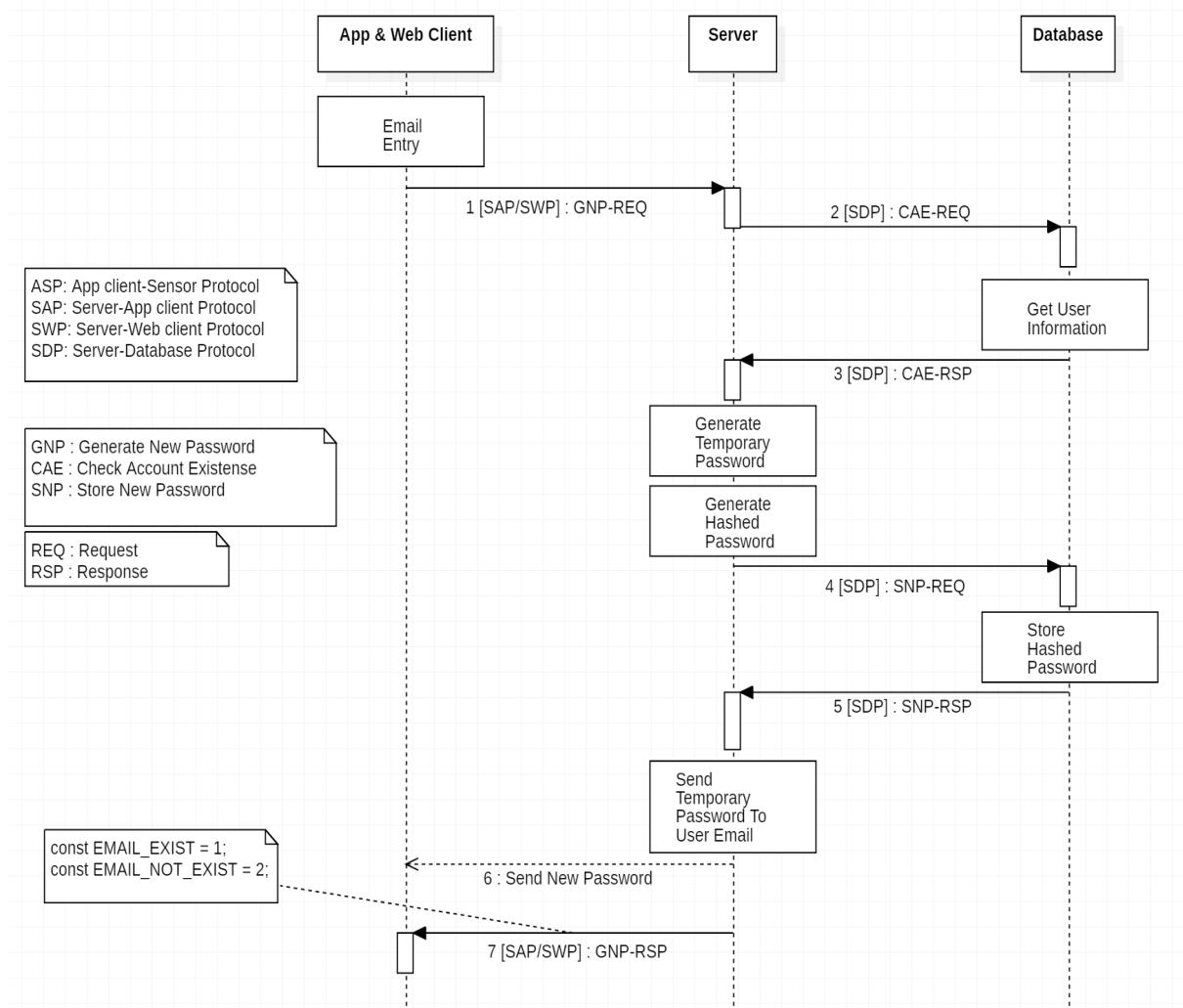
### 3) Sign-out



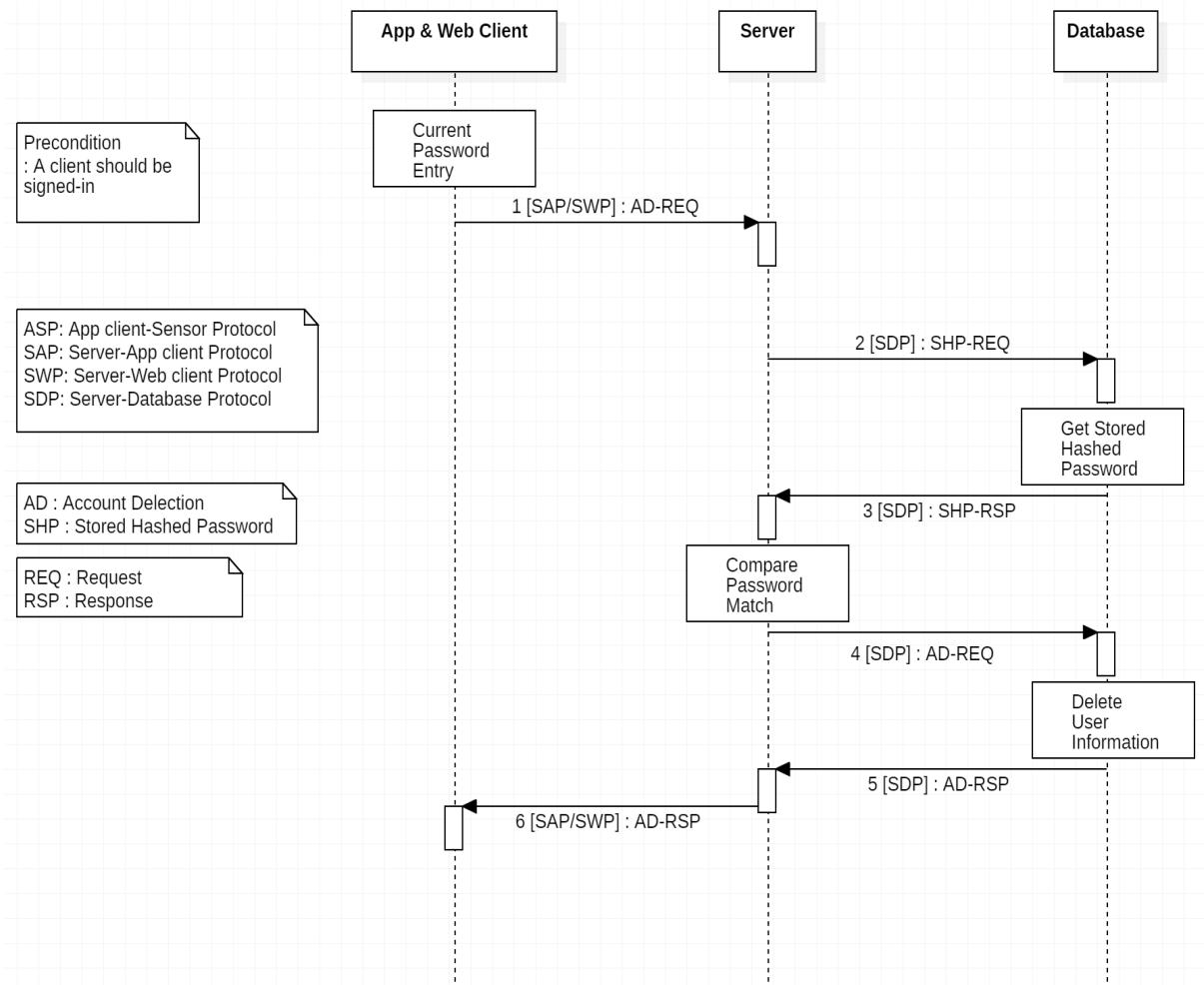
#### 4) User password change



## 5) Forgotten password update

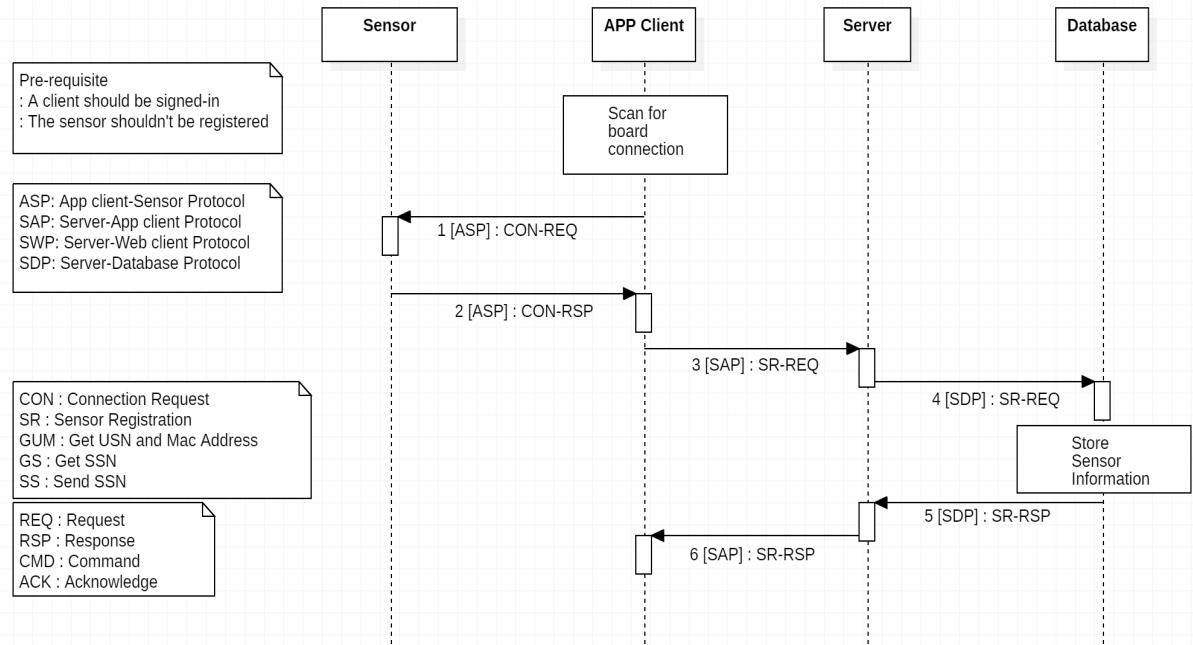


## 6) ID cancellation

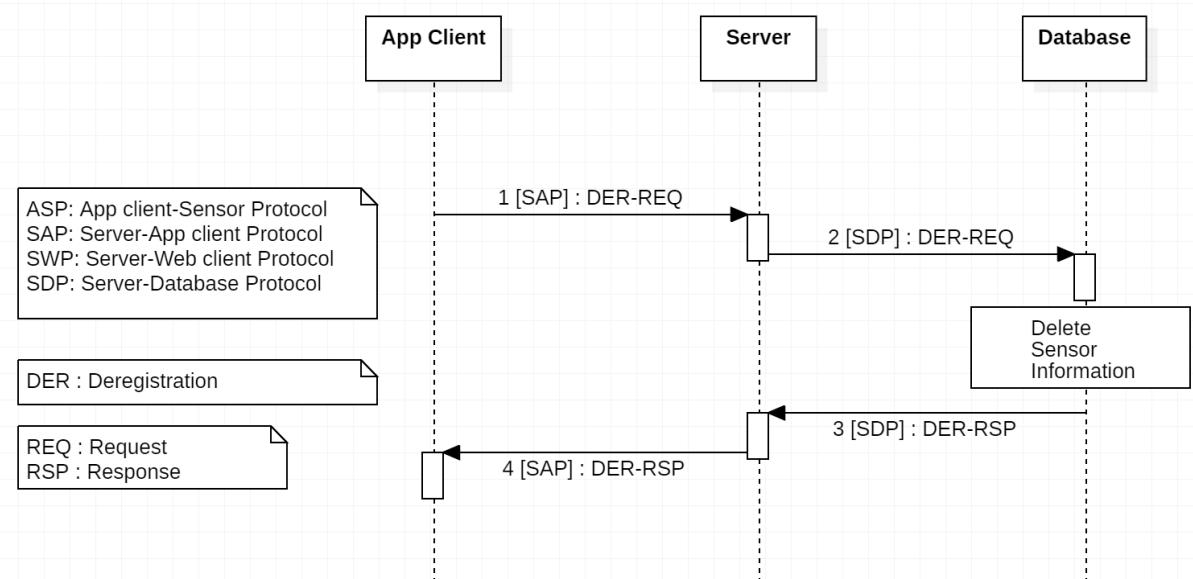


## 5.2 Sensor Management

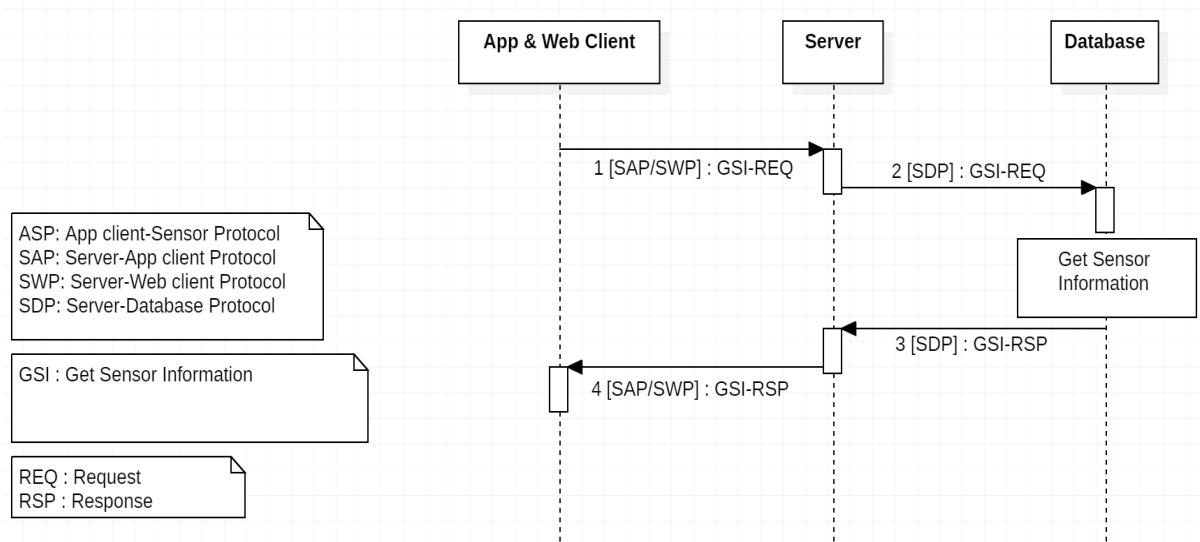
### 1) Sensor registration and association



## 2) Sensor deregistration and disassociation

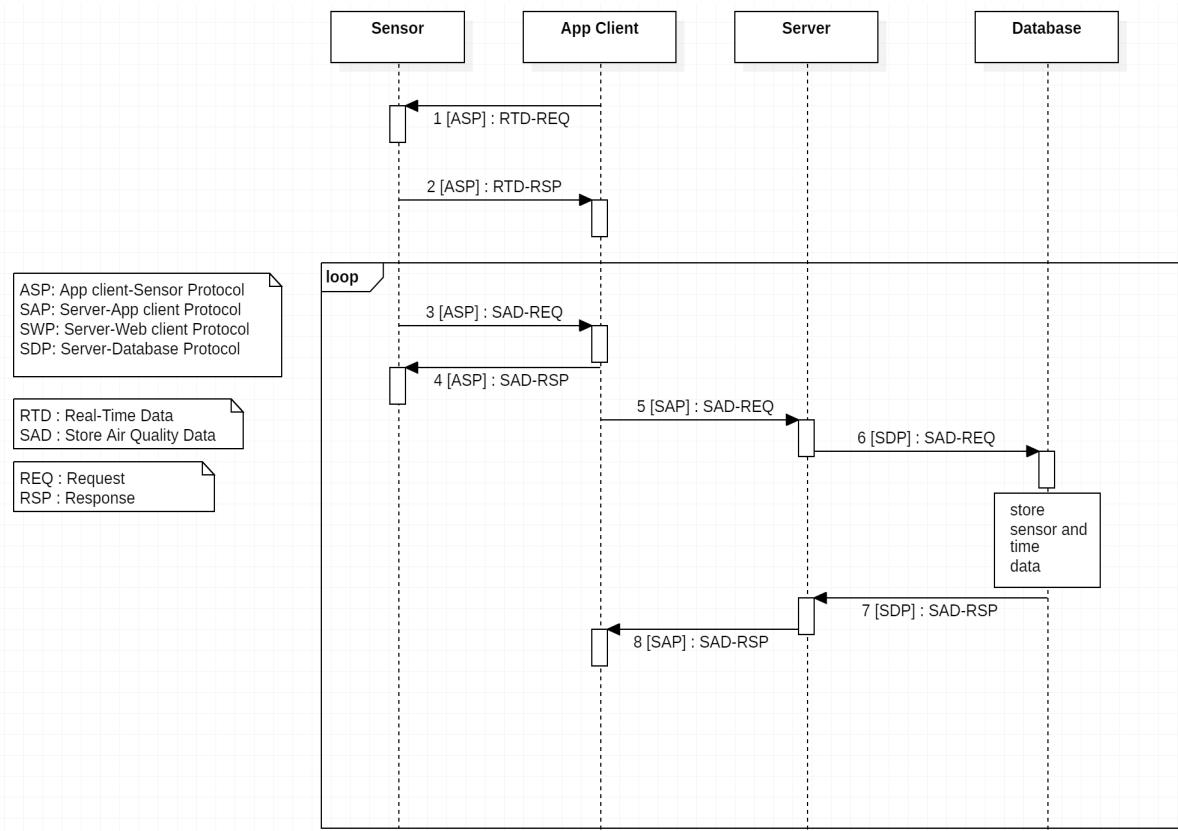


## 3) Sensor list view

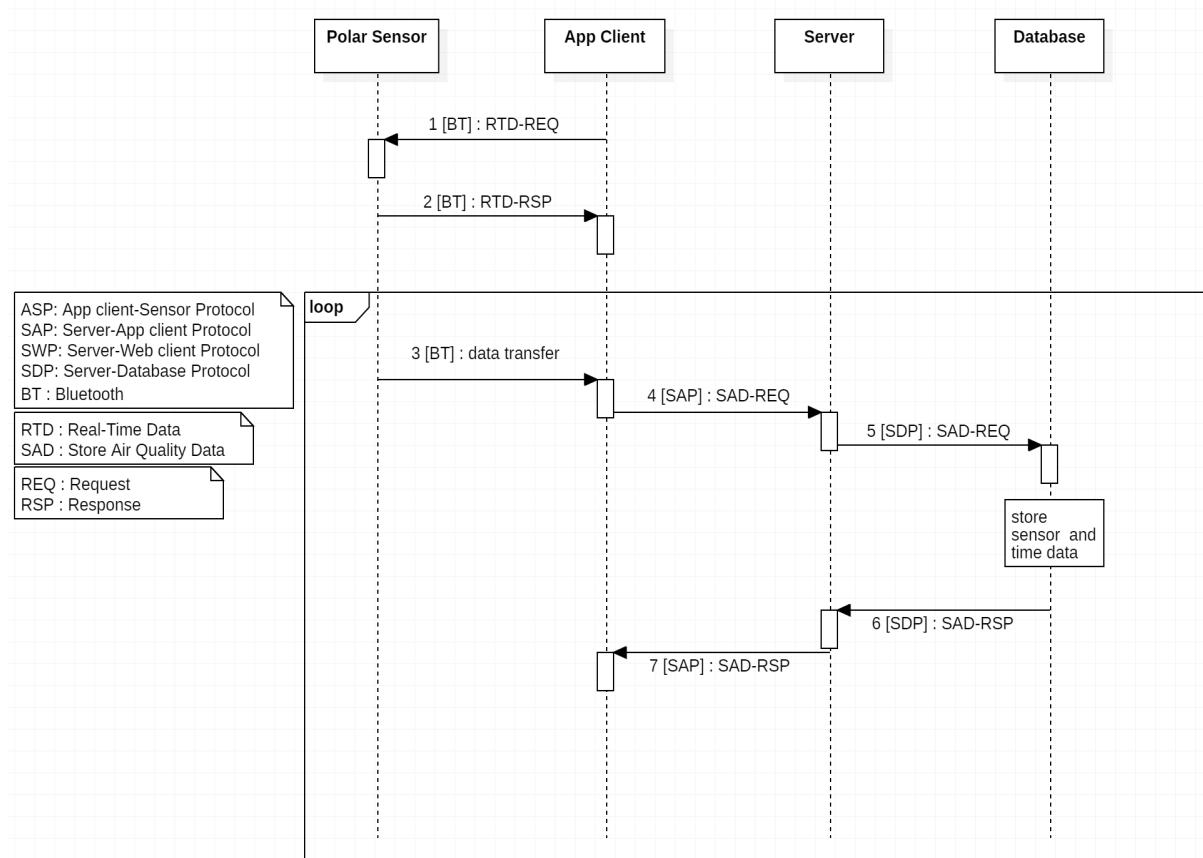


## 5.3 Data Management

### 1) Real-time air quality data transfer

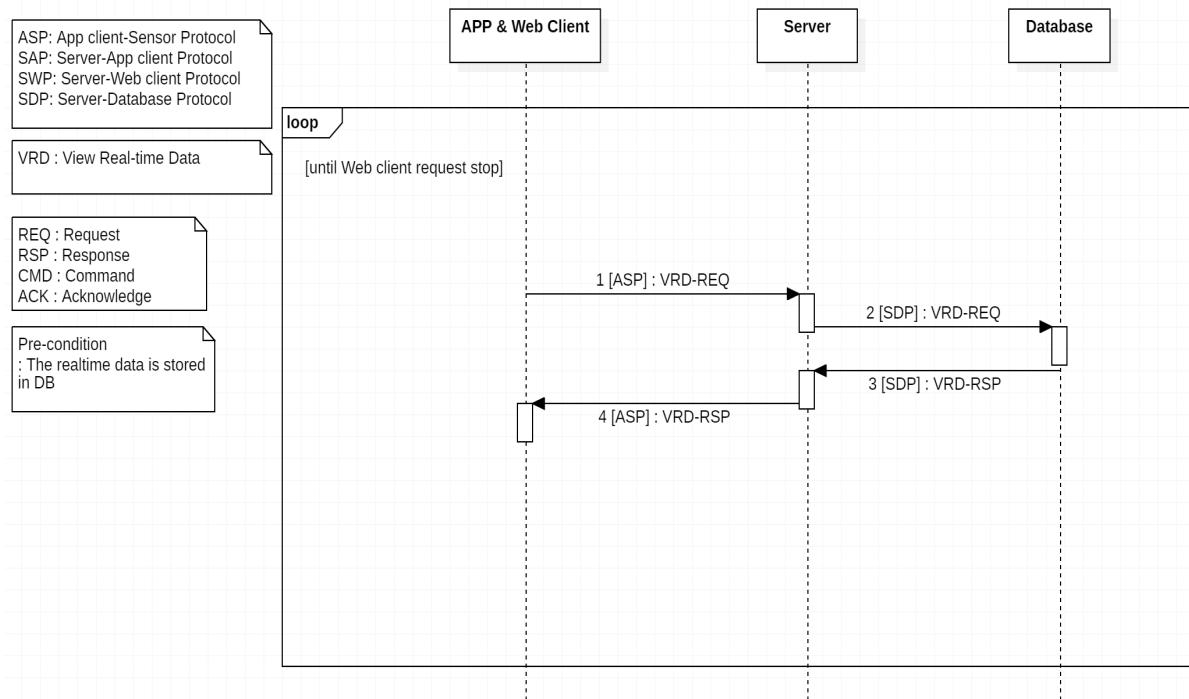


### 2) Real-time heart-related data transfer

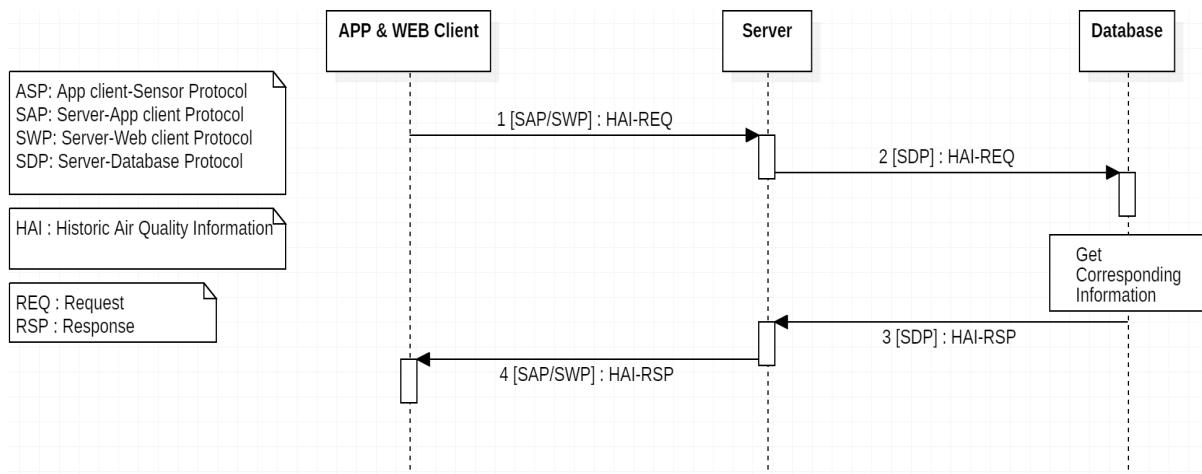


## 5.4 Data Monitoring

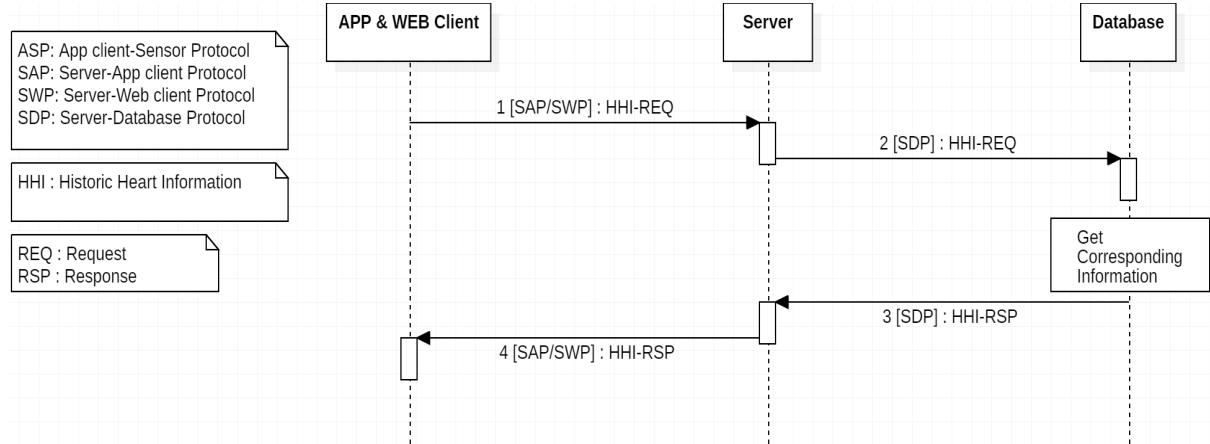
### 1) Real-time air quality and heart-related data view



### 2) Historical air quality data view



### 3) Historical heart-related data view

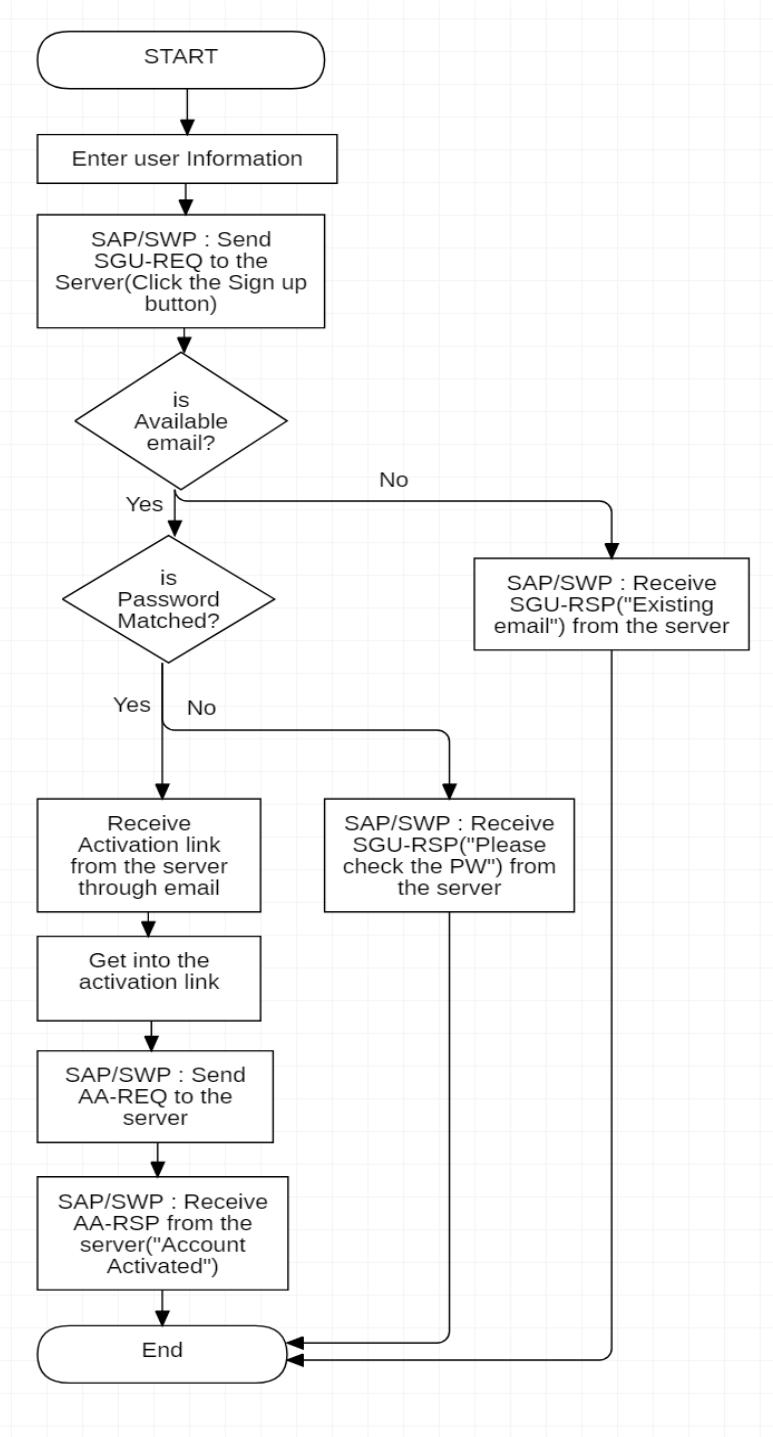


# 6. Flowchart

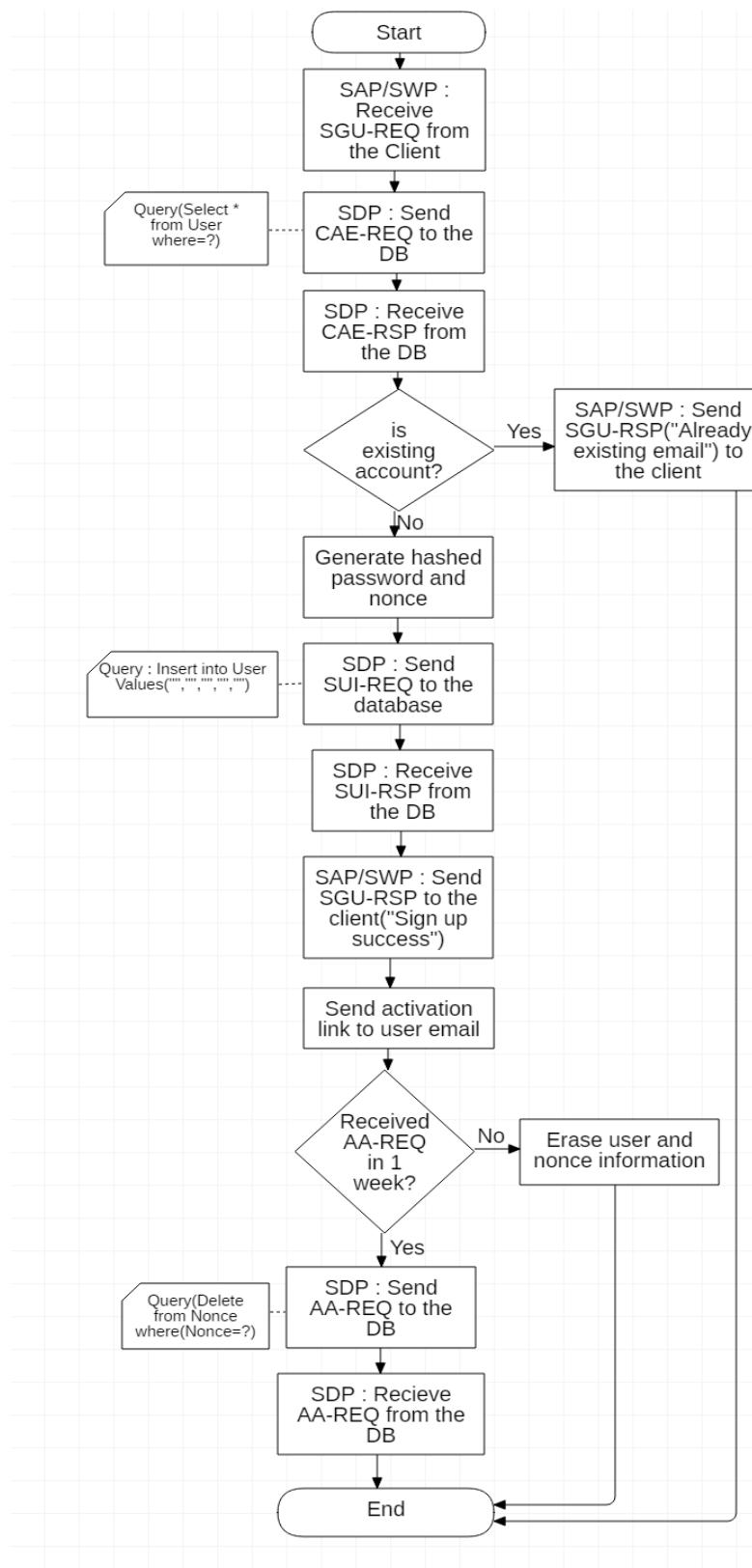
## 5.1 User Management

### 1) Sign-up

-App & Web

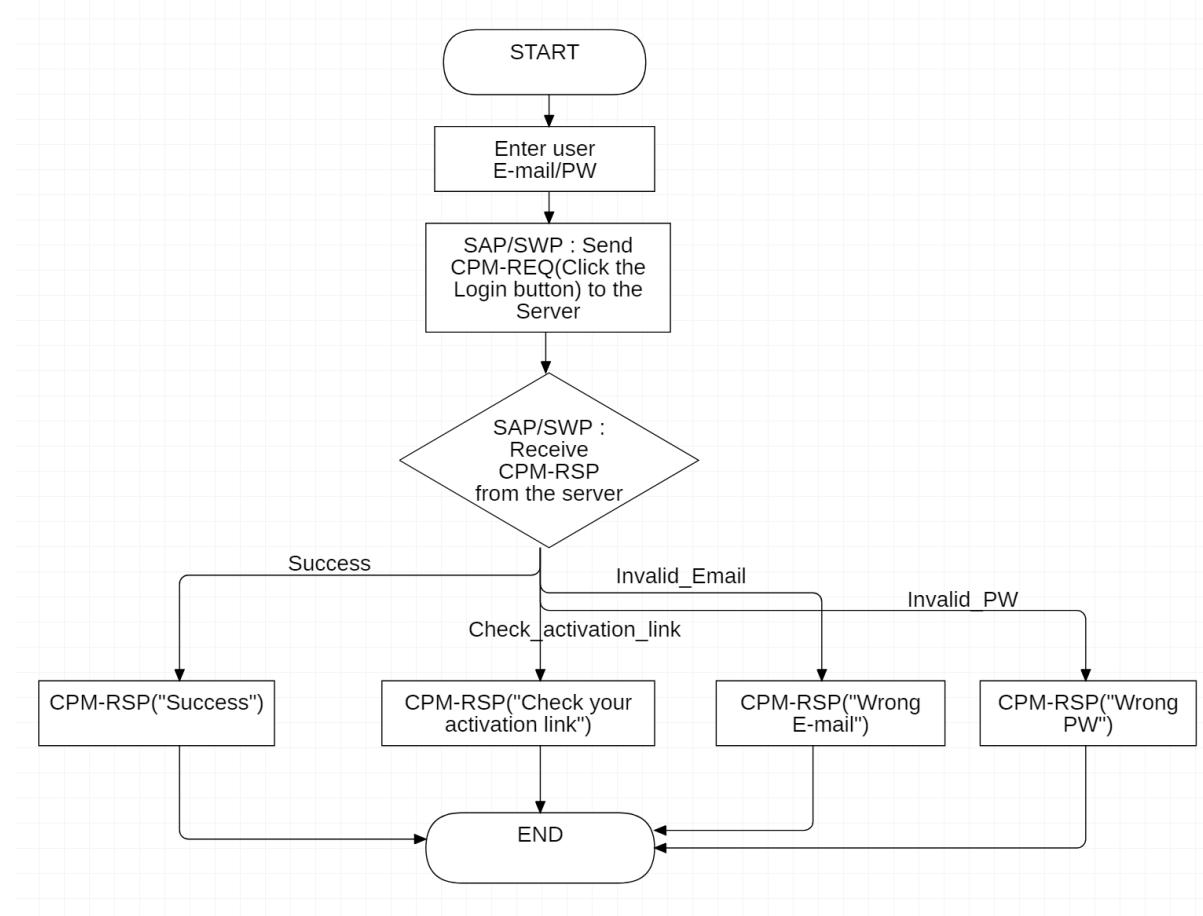


## -Server

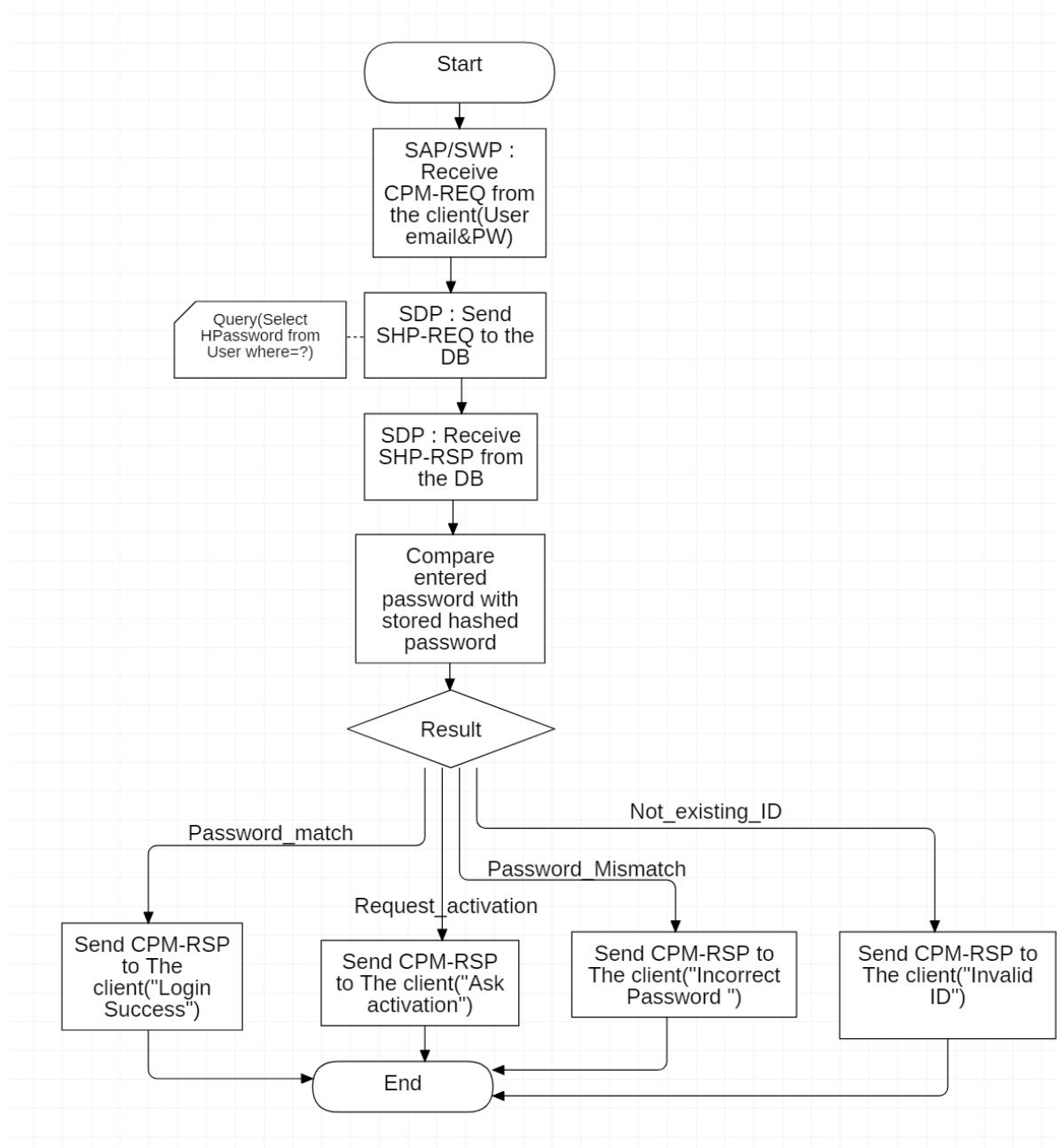


## 2) Sign-in

-App & Web

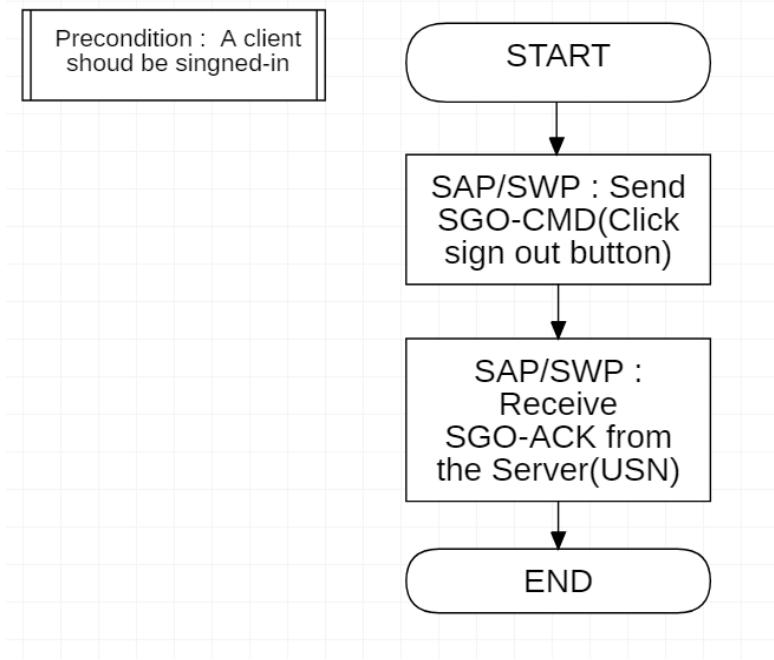


-Server

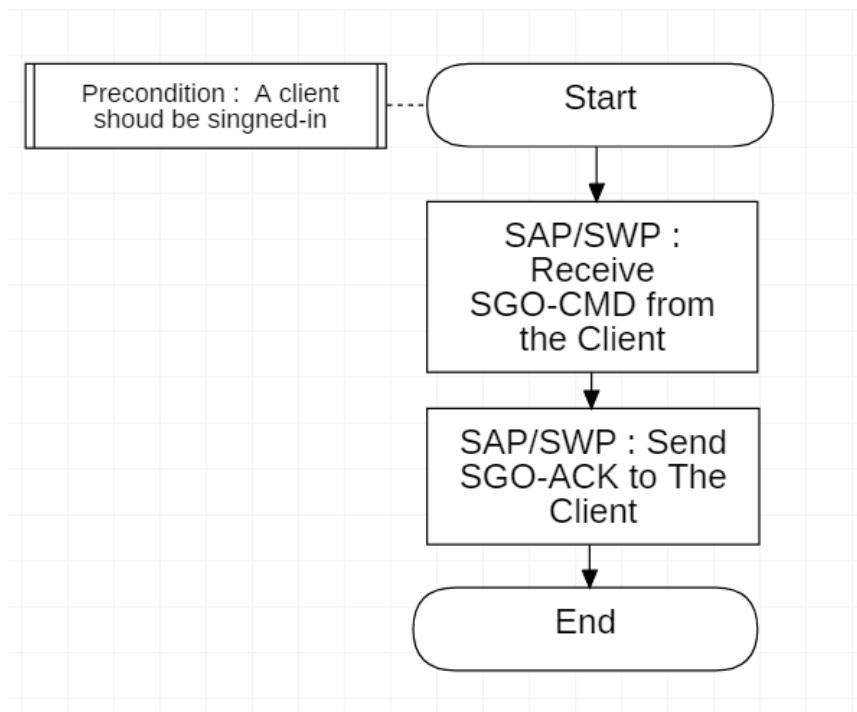


### 3) Sign-out

-App & Web

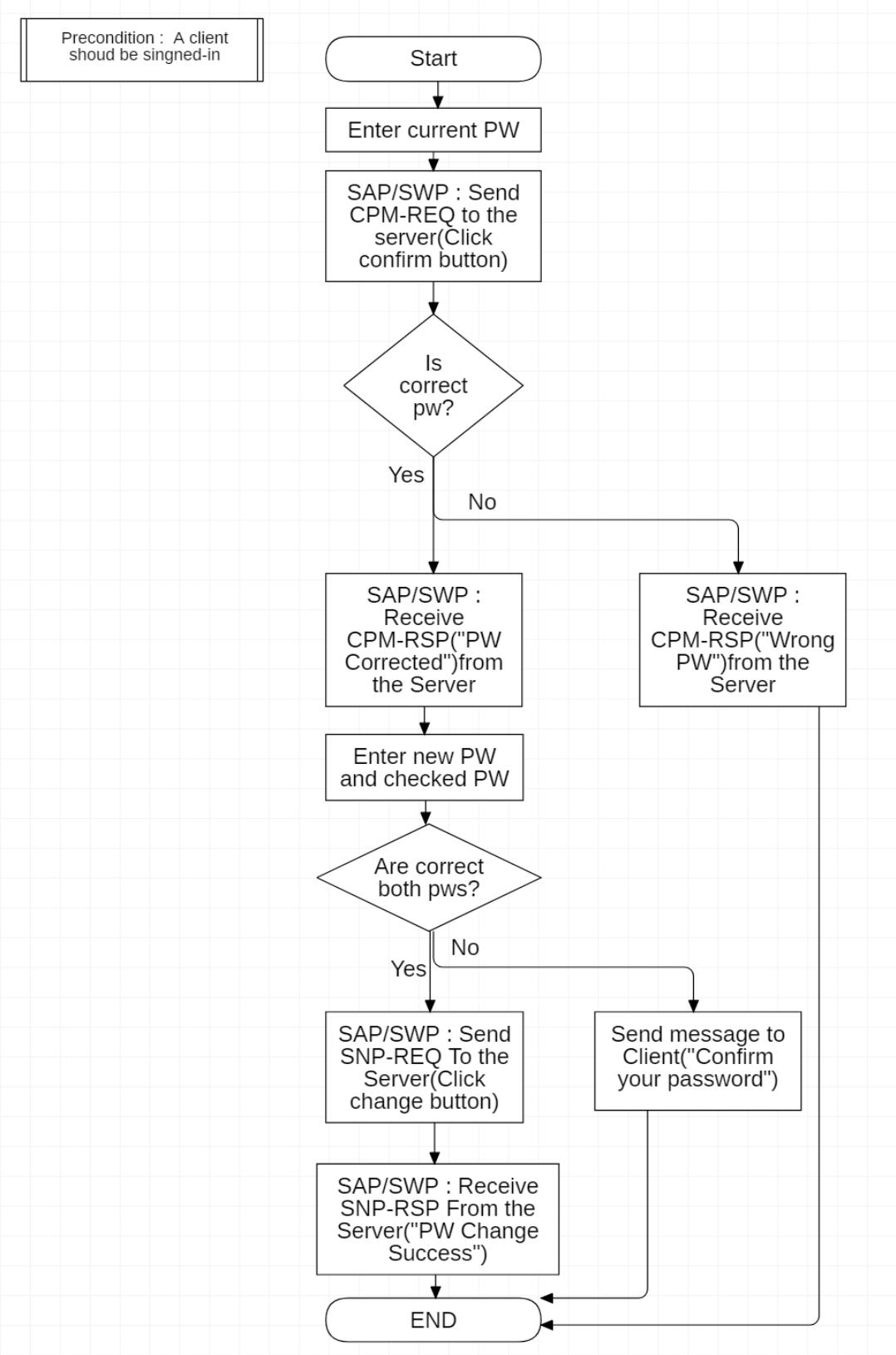


-Server

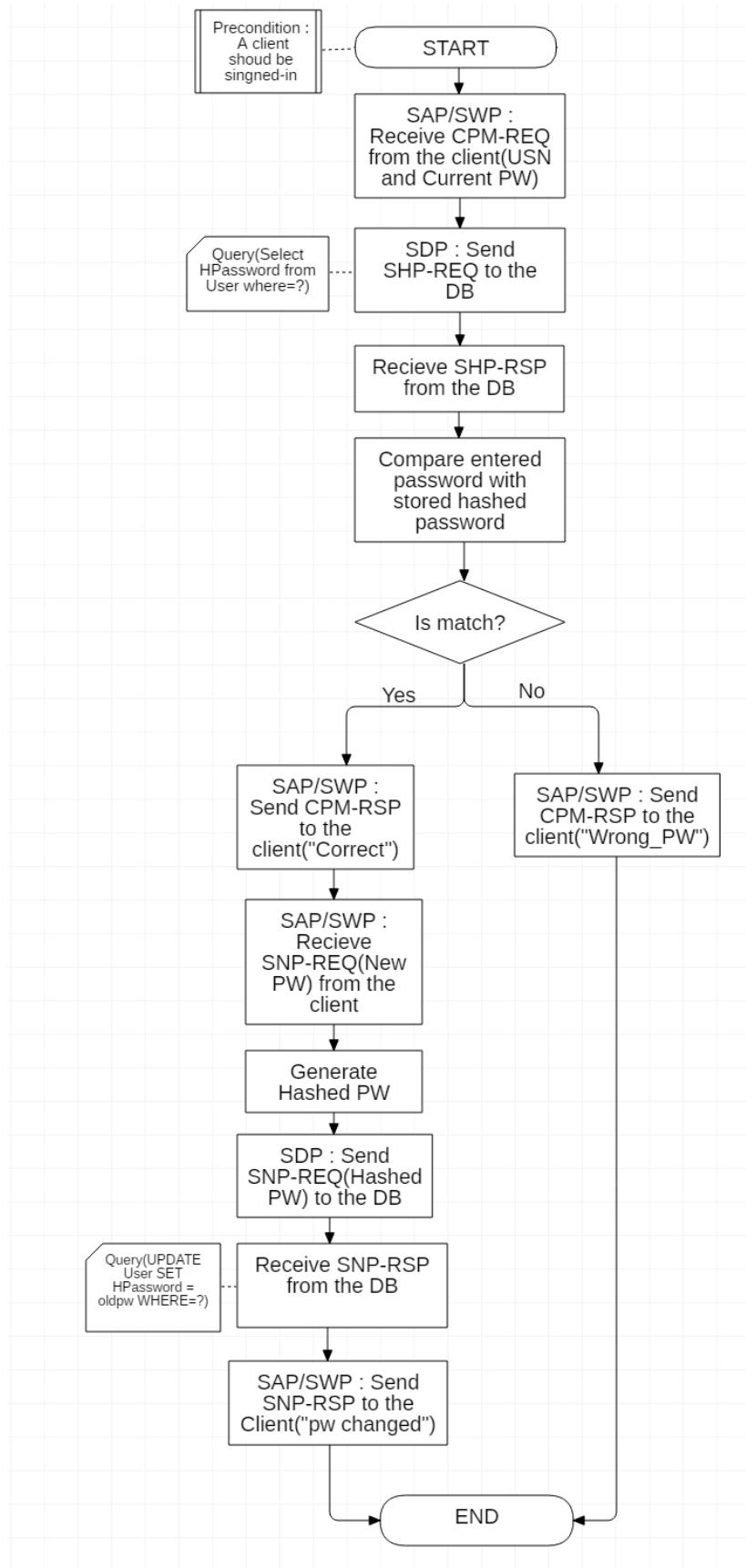


#### 4) User password change

-App & Web

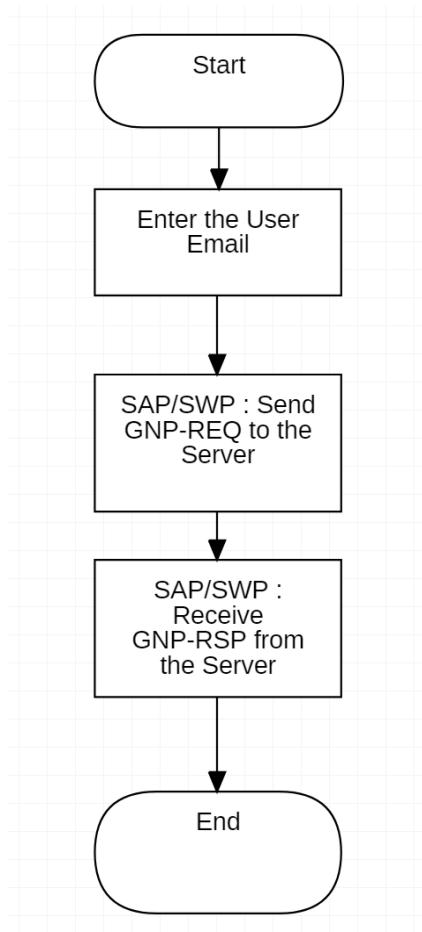


-Server

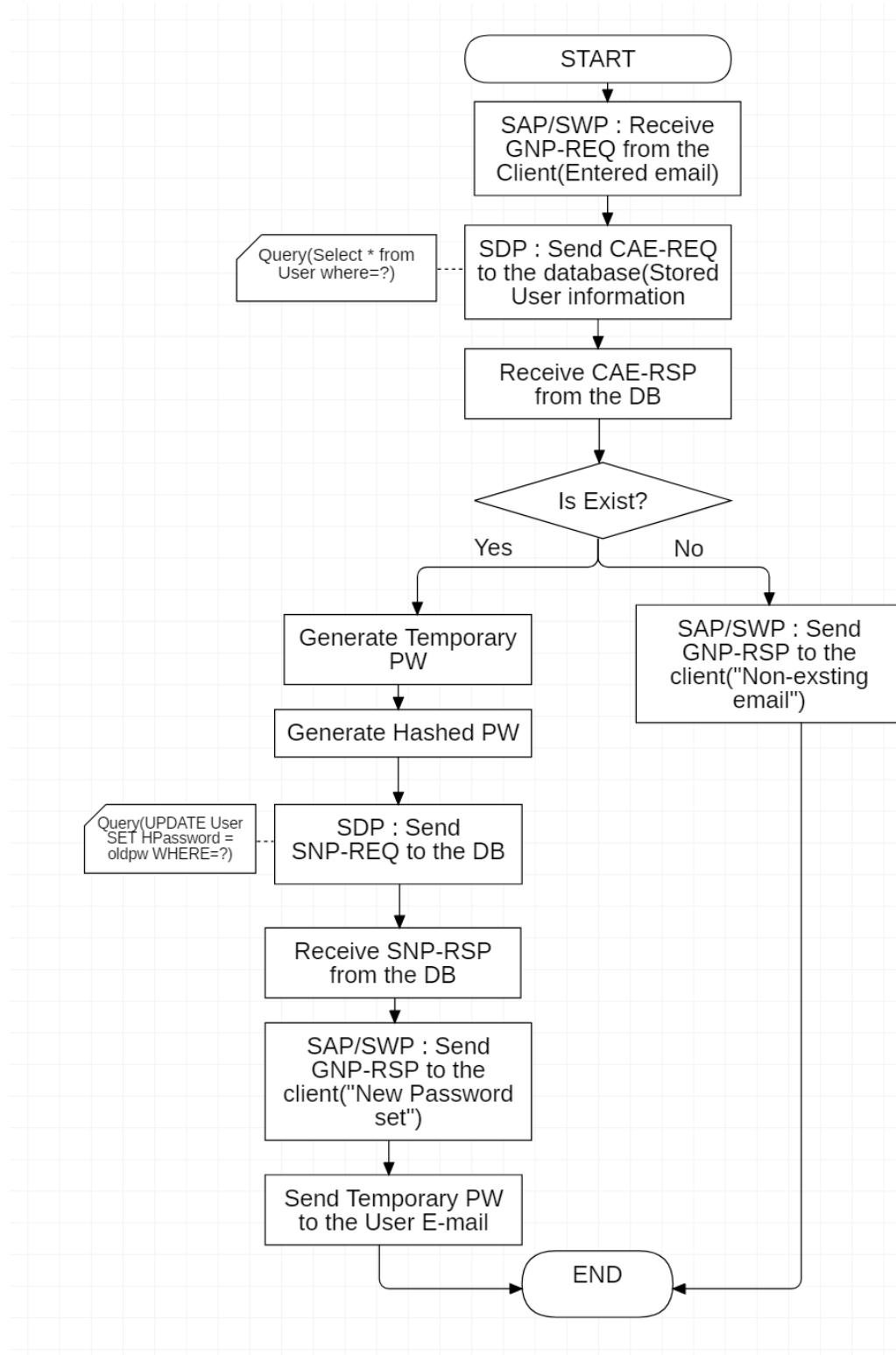


## 5) Forgotten password update

## -App & Web

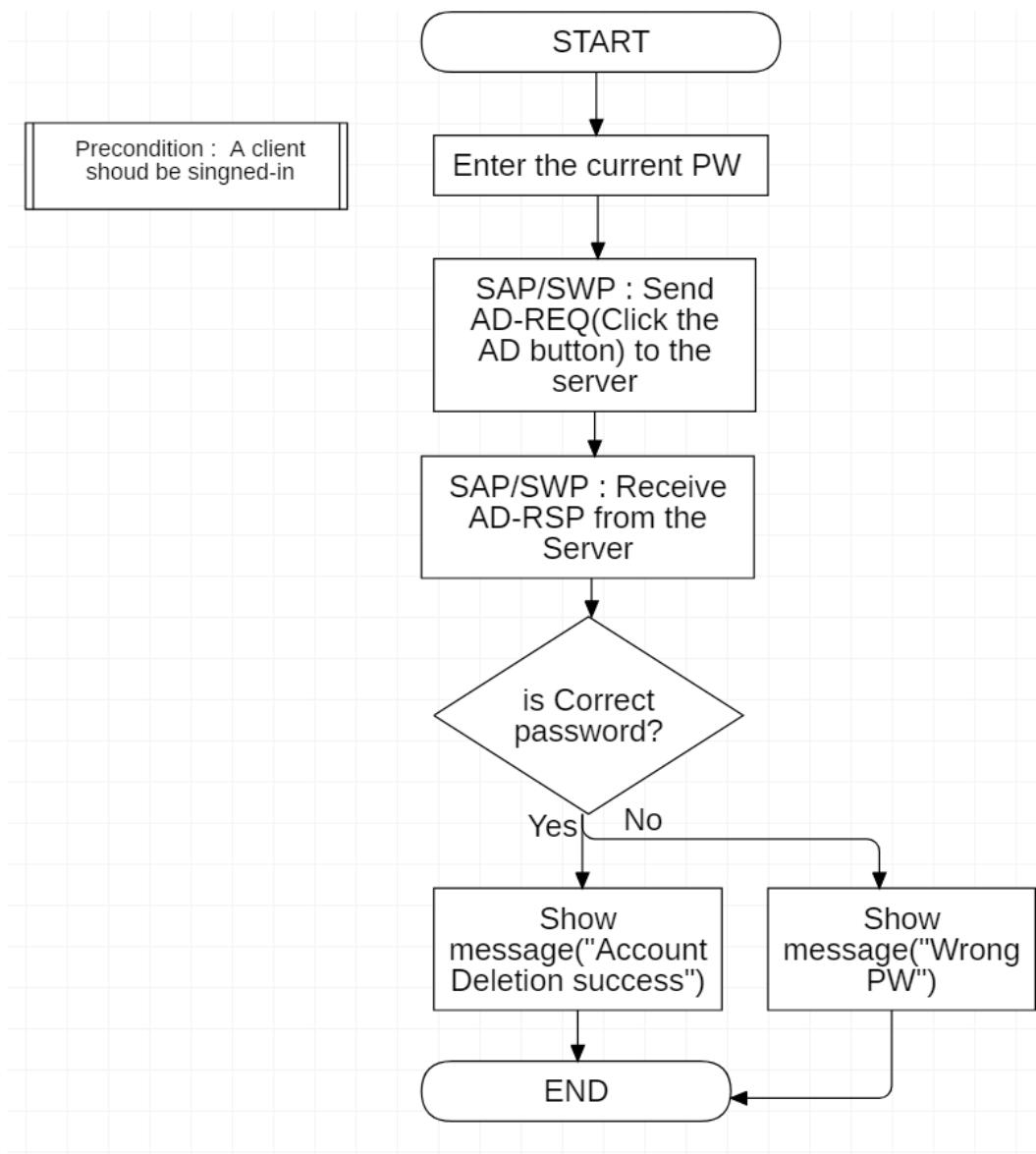


## -Server

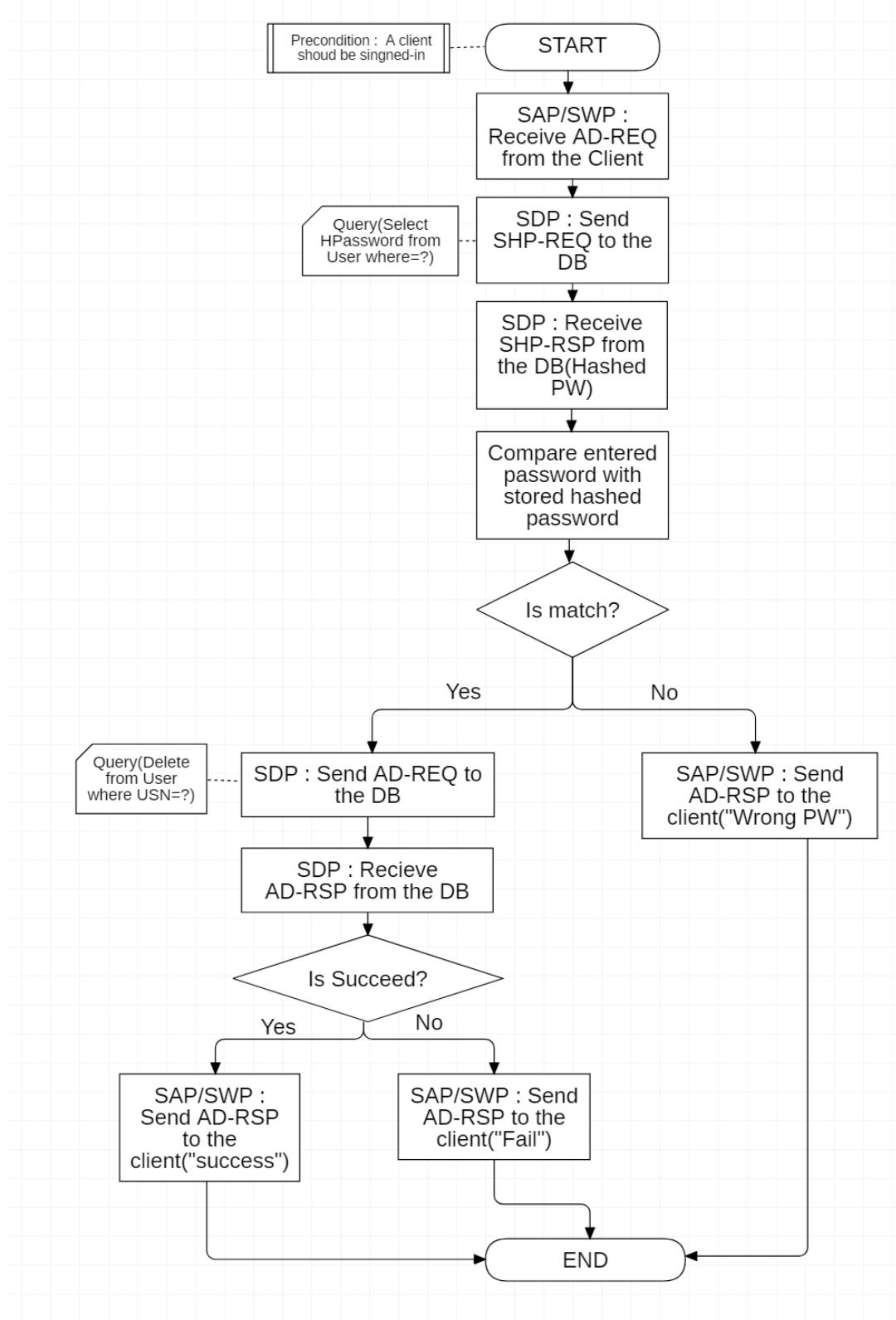


## 6) ID cancellation

## -App & Web



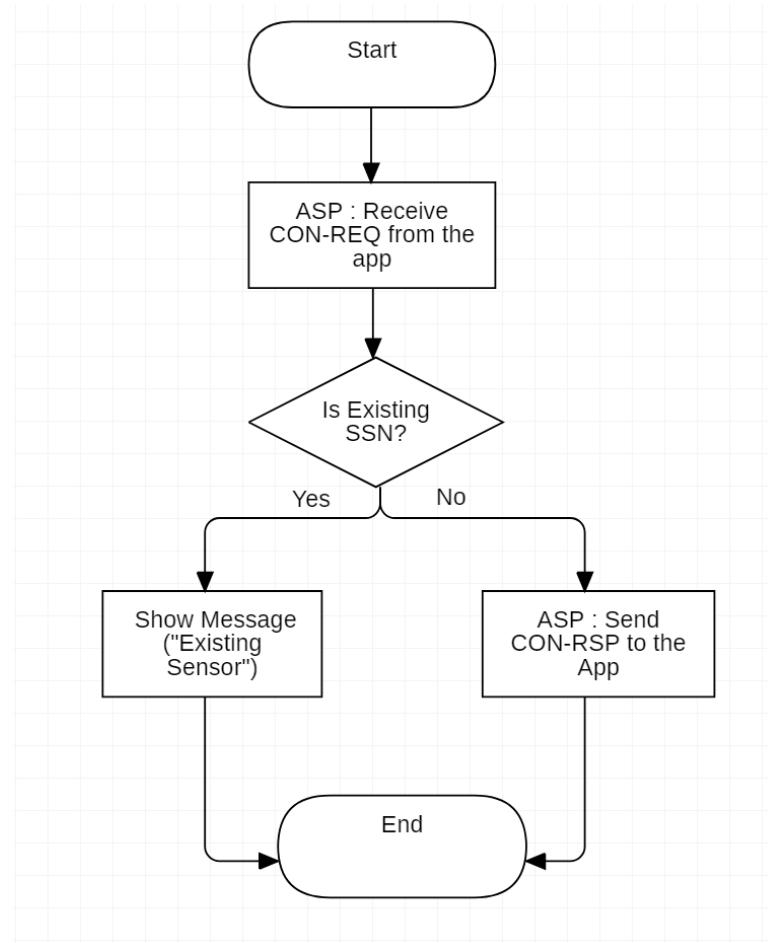
## -Server



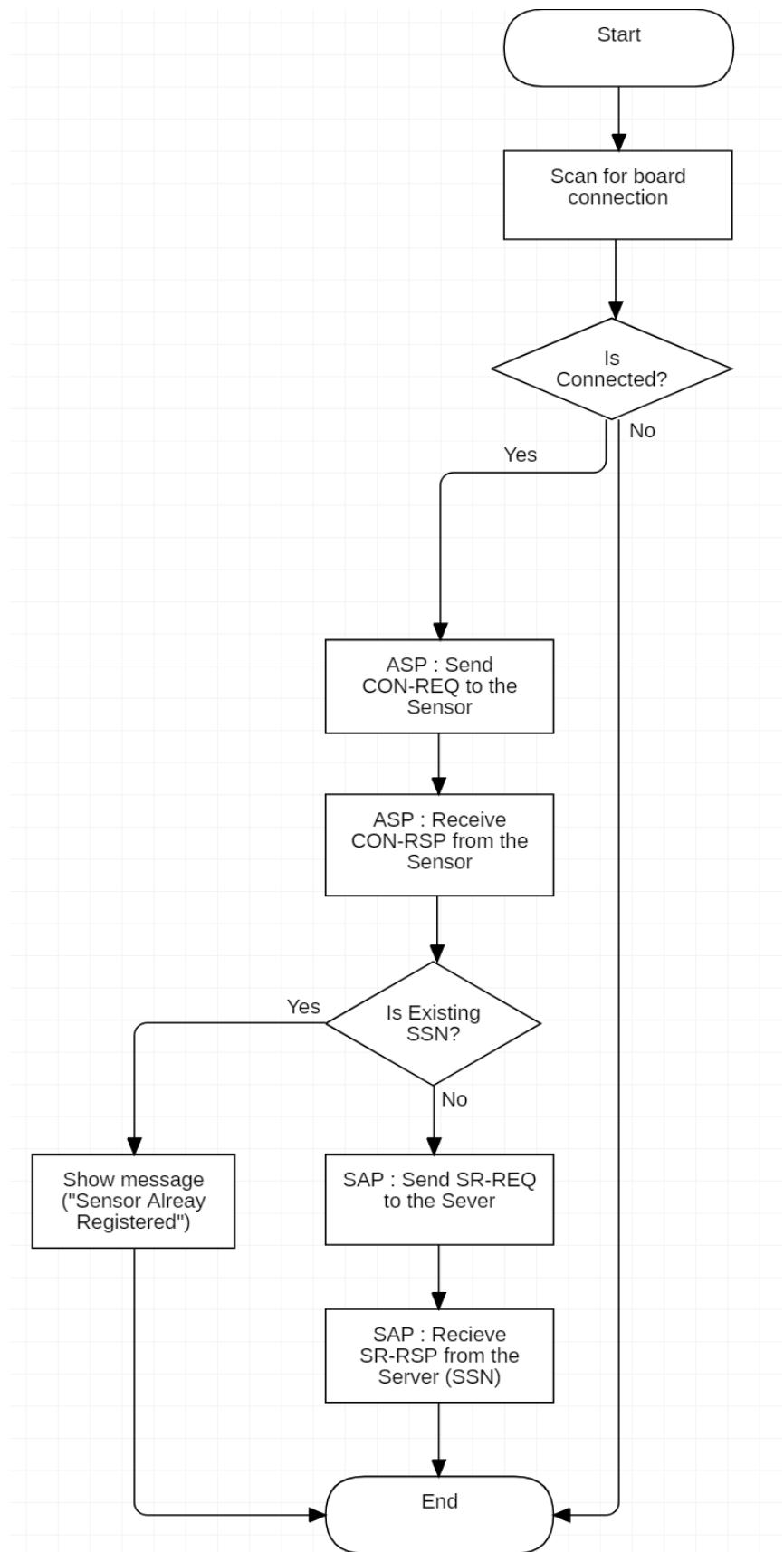
## 5.2 Sensor Management

### 1) Sensor registration and association

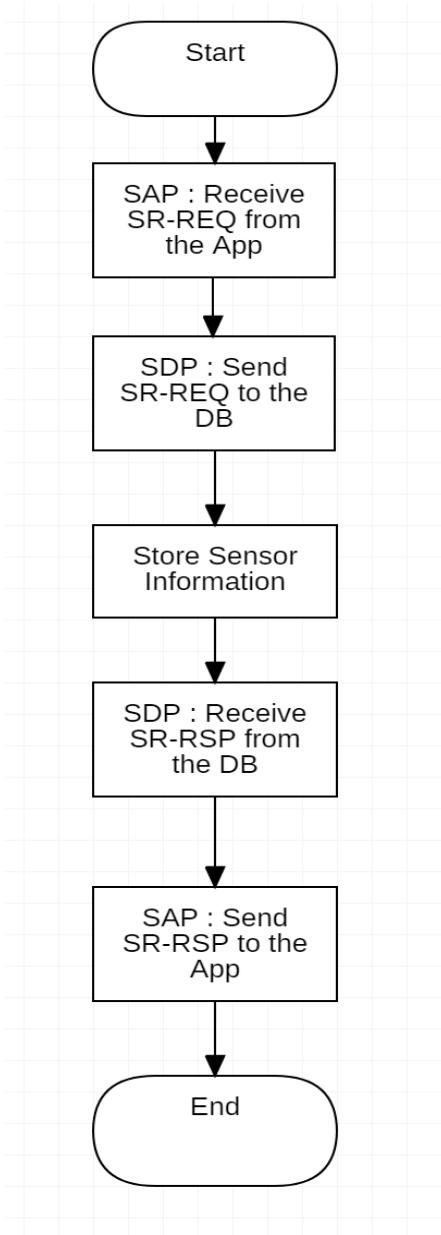
- Sensor



- App

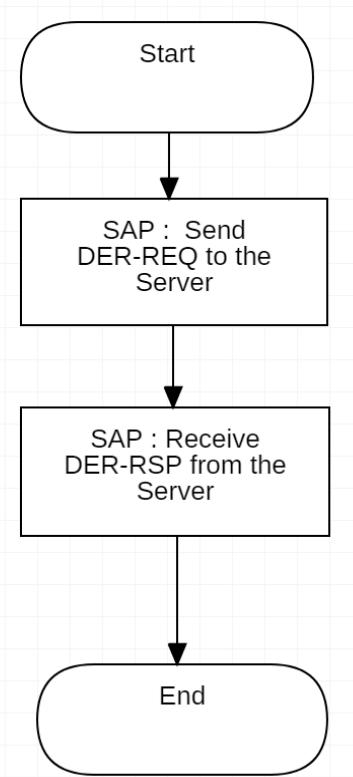


- Server

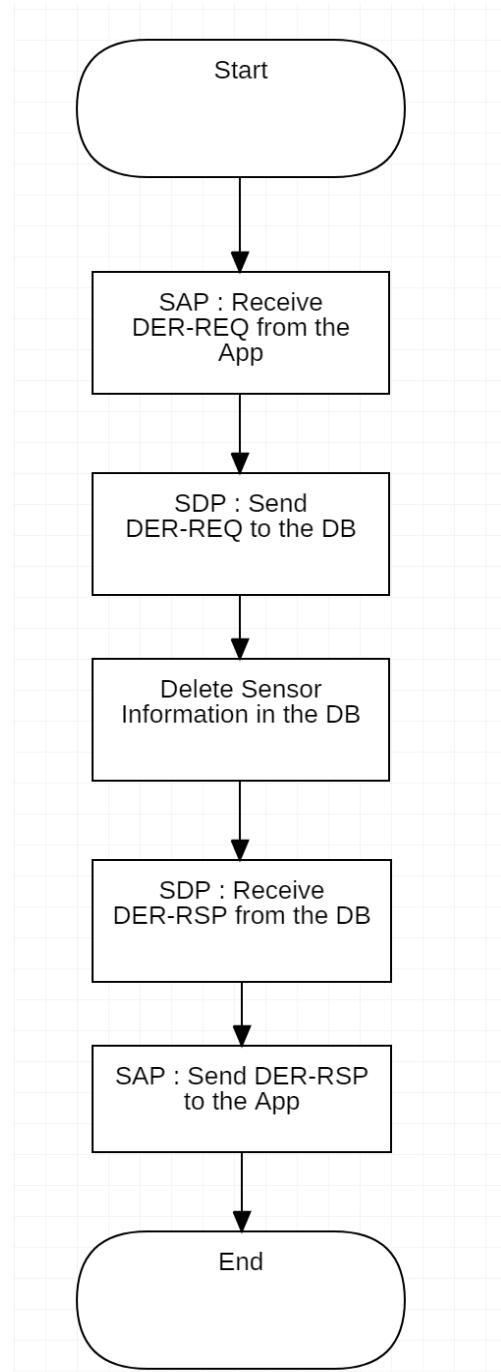


## 2) Sensor deregistration and disassociation

- App

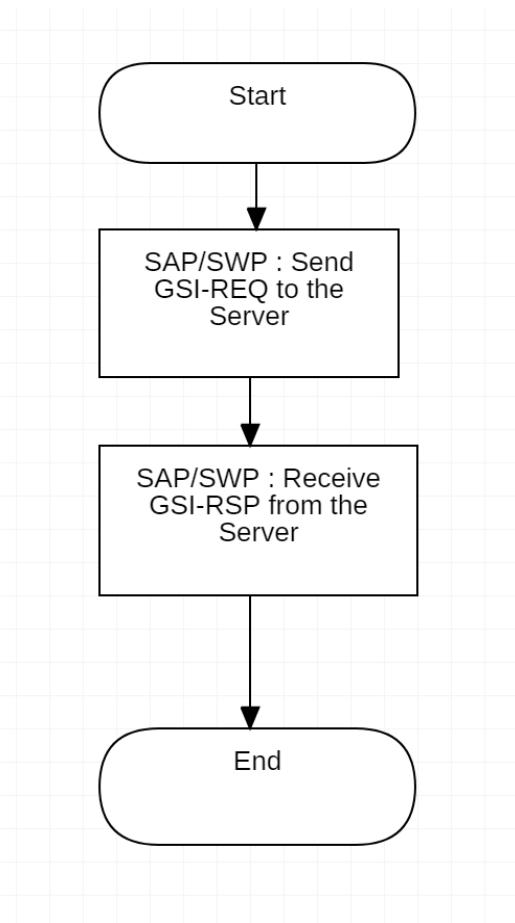


- Server

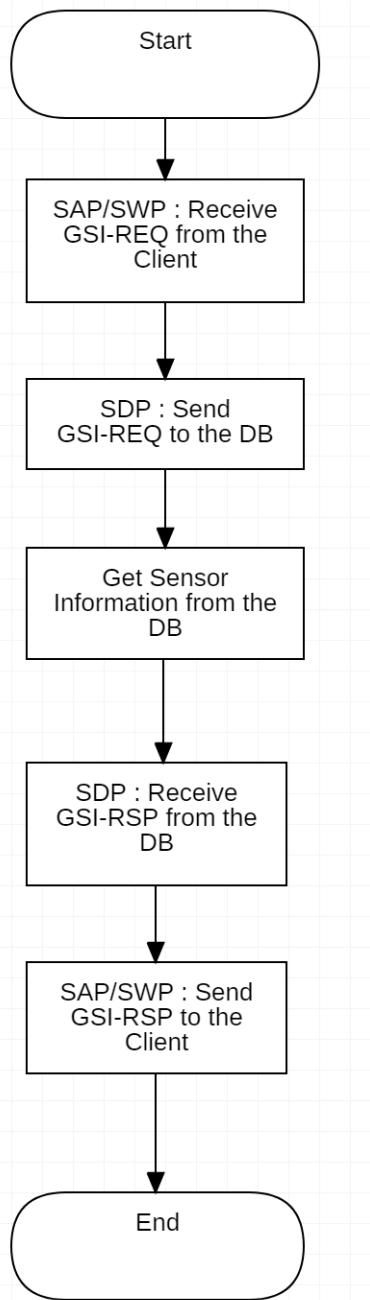


### 3) Sensor list view

- App & Web



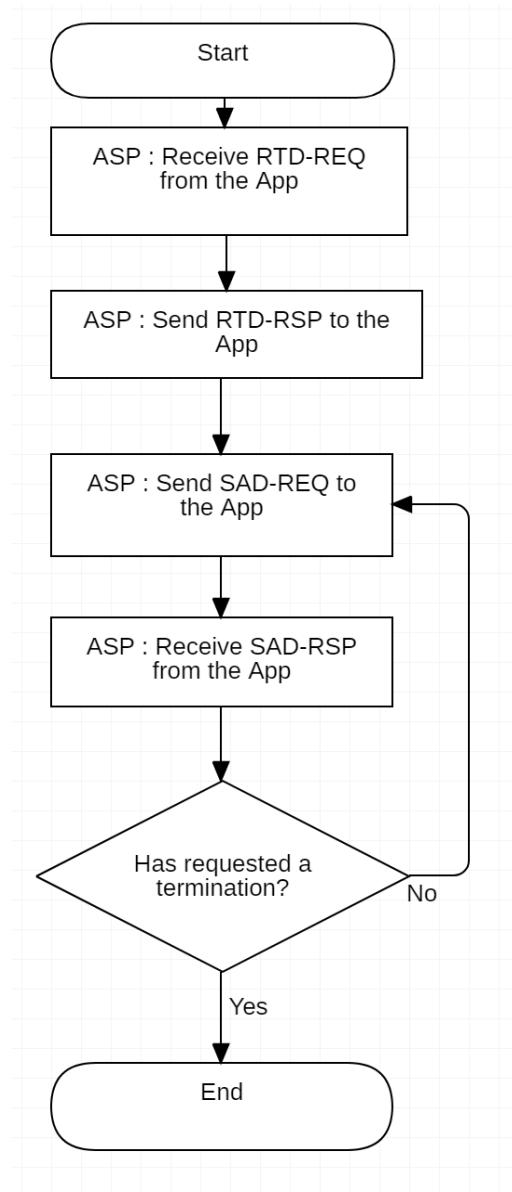
- Server



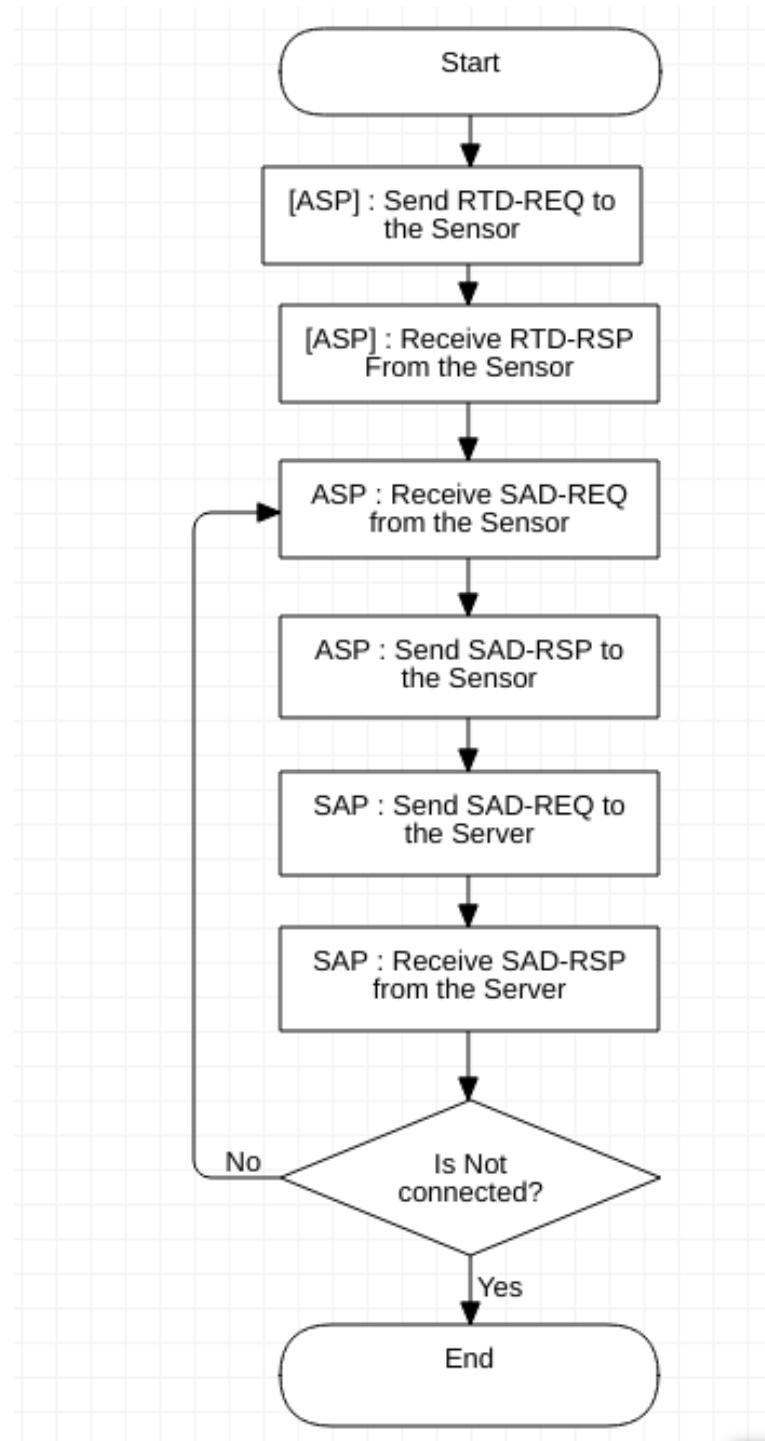
## 5.3 Data Management

### 1) Real-time air quality data transfer

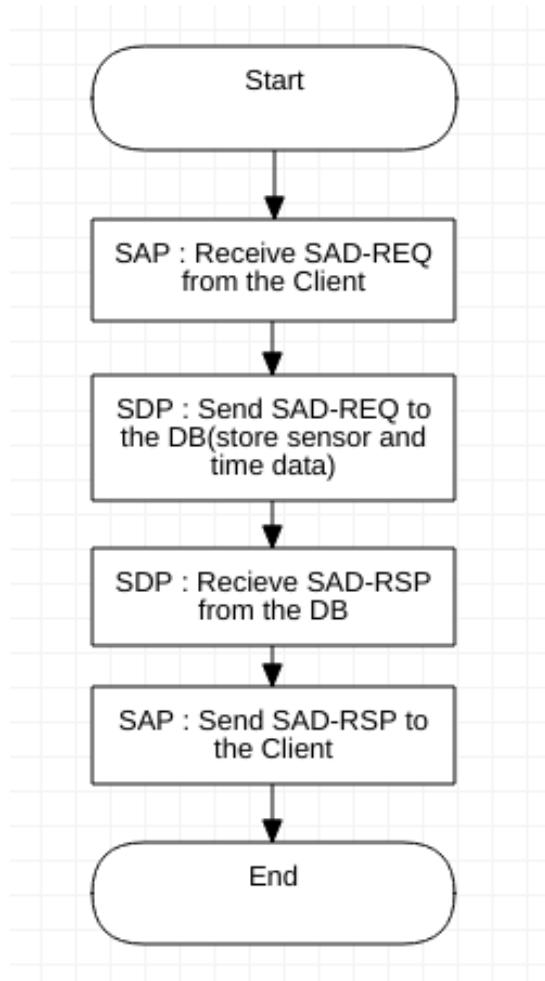
-Sensor



## -App

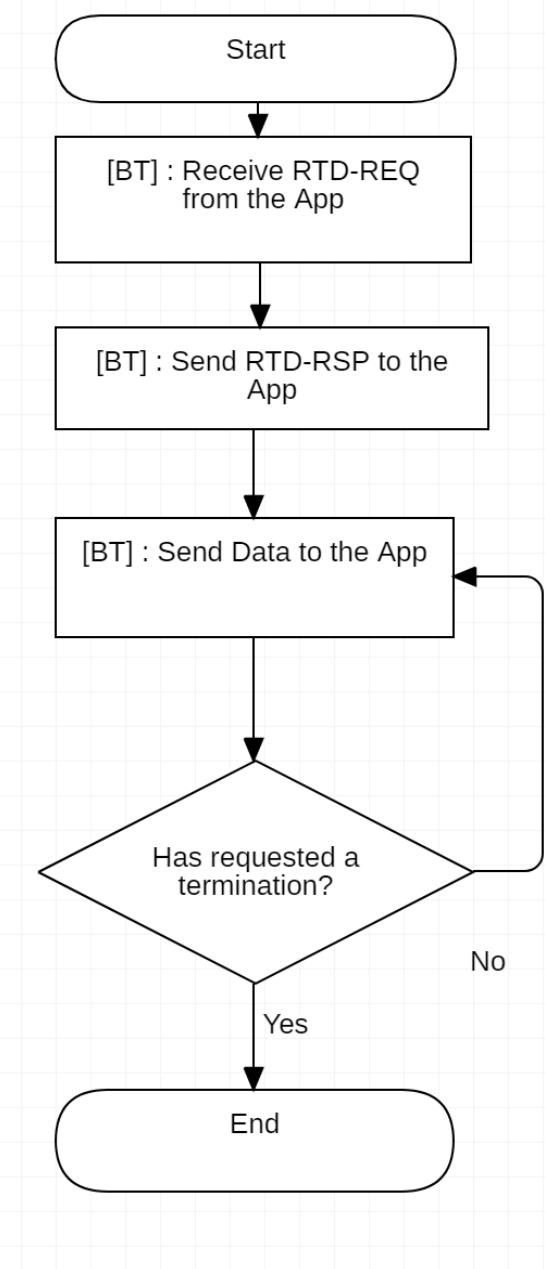


## -Server

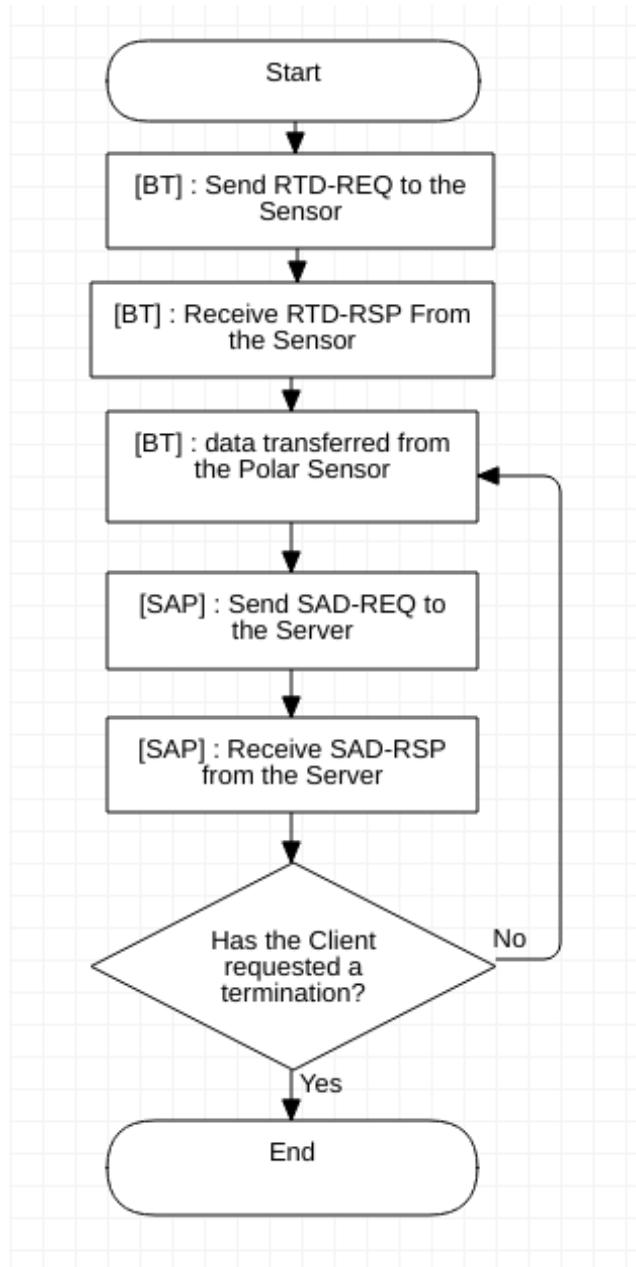


## 2) Real-time heart-related data transfer

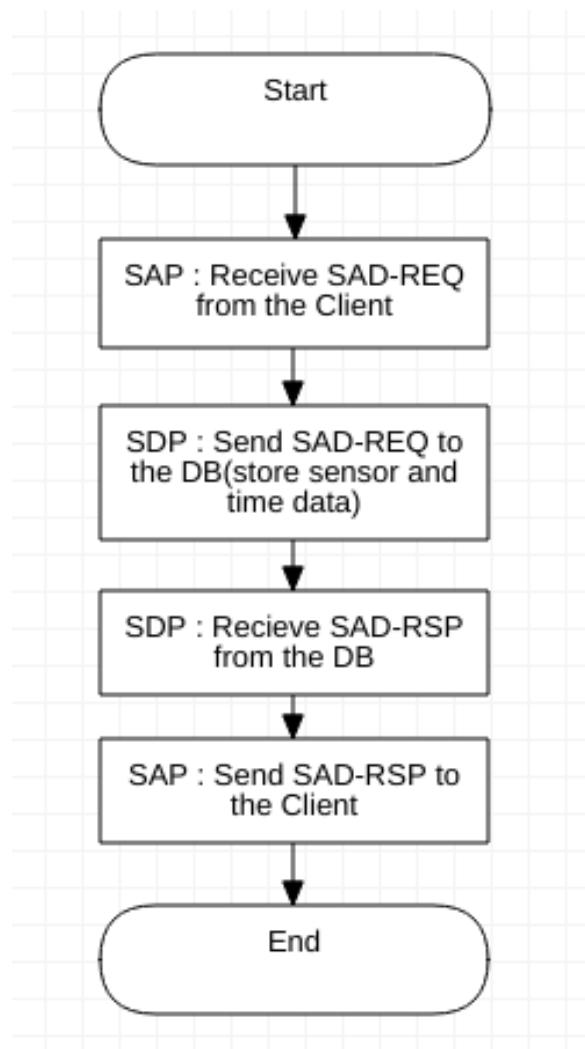
-Sensor



## -App



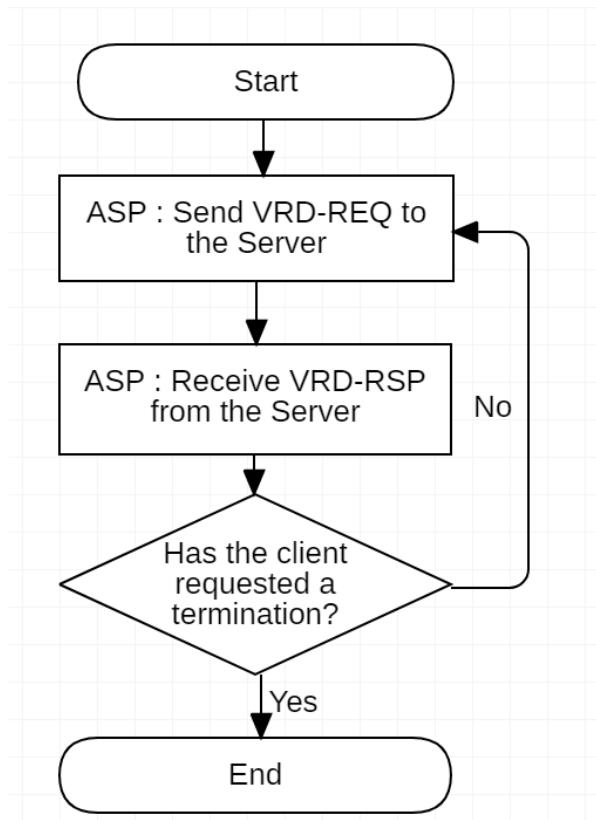
## -Server



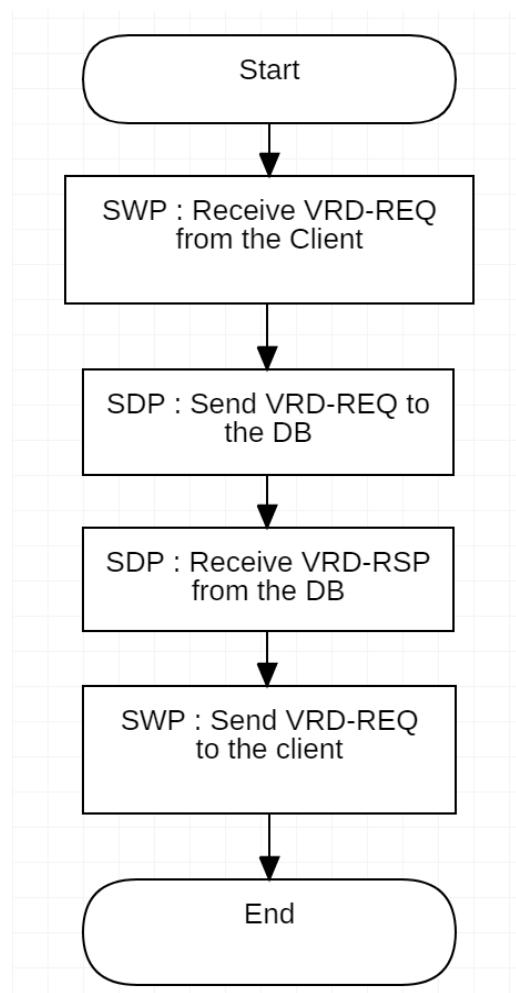
## 5.4 Data Monitoring

### 1) Real-time air quality and heart-related data view

-App & Web

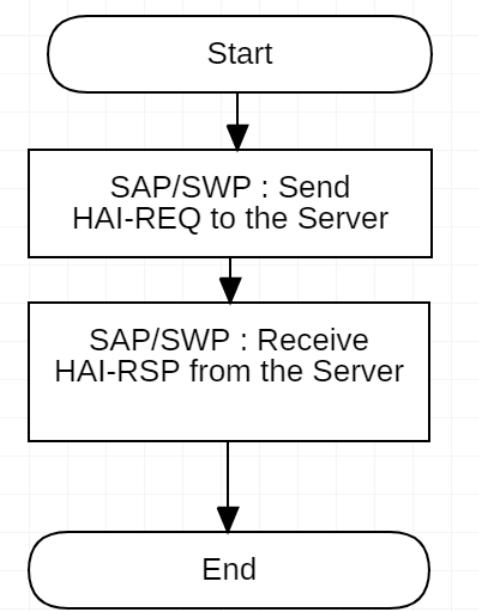


## -Server

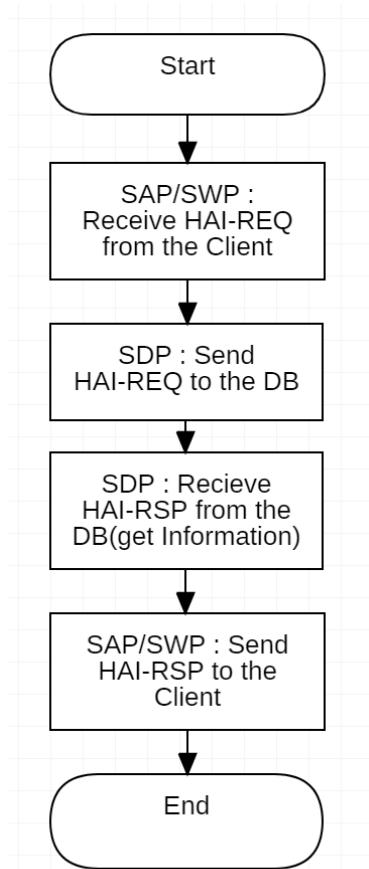


## 2) Historical air quality data view

-App & Web

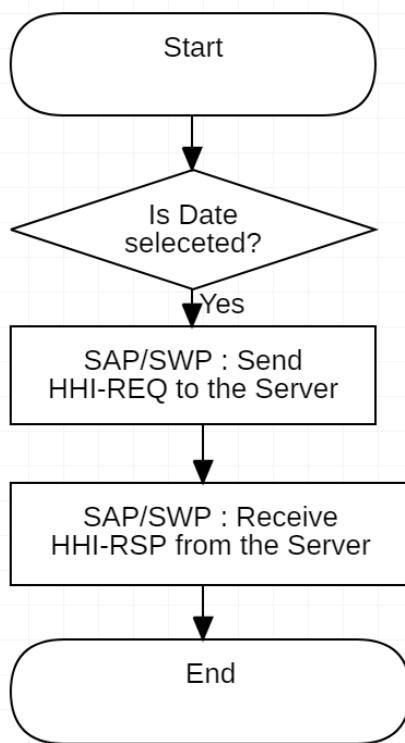


-Server



### 3) Historical heart-related data view

-App & Web



-Server

