

Main Success Cases

Glossary

1. User - a human user accessing the system
2. System - the computer hosting the server
3. Module - hardware that is reading the air quality, sends data to the system

User Inspects Existing Module

1. User browses inventory and selects the module
2. System returns module air quality data

User Adds New Module

0. Precondition: User logged in as an admin
 1. User selects “add new module”
 2. System solicits information
 3. User inputs module data (i.e. name, location)
 4. System validates data
 5. System adds module to database
 6. System tests added module
 7. System tells user module has been added successfully
- 4a.) If invalid data, return to step 3
- 5a.) If error adding module, system removes entry in database, alert user and system restarts scenario
- 6a.) If no data is collected, system alerts user, retry option given, if user selects retry repeat step 6

System Reads data

1. System requests information from each module
 2. Module takes sample
 3. Module sends information to the system
 4. System validates information
 5. System stores information in the database
- 1a) If system can't reach the module send an email to admin
- 3a) If system receives no information send an email to admin
- 4a) If reading is an outlier, return to step 2
- 4b) If the reevaluated sample is still an outlier, the system sends an email to admin

User Returns to the catalog

1. User selects “return to catalog”
2. System returns catalog data

User Inputs nonreal Coordinates

1. User inputs non-real coordinates to lookup module
2. System returns to catalog

System takes extraneous data points

1. Module takes reading and sends data to system
2. System compares current data to previously recorded data points

2a) Data does not fall beyond a certain percentage of change it is logged by the system

2b) Data falls beyond a certain percentage of change and is flagged as extraneous

User Deactivates a module

1. User browses catalog
2. User selects existing module
3. System returns module air quality data
4. User selects deactivate module
5. System stops requesting data from certain module until reactivated

User Changes Module Status

0. Precondition: user logged in as an admin
1. User selects a module to change the status of
2. System returns module information
3. User selects turn module off or on
4. System toggles the modules status in the database

(The system will not ask for data till module is turned back on)

User Updates a Module

0. Precondition: user logged in as an admin
1. User selects a module to update
2. System reruns the modules information
3. User selects update module
4. System returns the modules changeable information
5. User edits information
6. User selects save

7. System updates the modules information in the database

User Logins as Admin

1. User selects the login option
2. System prompts user to enter information
3. User inputs username and password
4. System verifies the account information
5. System grants the user admin access

4a) If invalid account information system displays error message and returns to step 2

User Adds an Administrator

0. Precondition: User is signed into an existing administrator account
1. User selects “add new administrator”
2. System solicits information
3. User inputs new administrator information (username and password)
4. System adds new user to database
5. System tells the user that the user has been successfully added

4a) If any fields are empty, system displays error message and return to step 3

5a) If an error occurs adding the user to the database, the system displays an error and returns to step 2

User Exports Information

1. User selects module
2. System provides the user with information
3. User selects information to export
4. System retrieves past data from the database and exports the information as the user requested