1. Use Case Descriptions

This document contains the various use case descriptions that specify the actors interacting with the application. The description, conditions that factor in the use case and different event scenarios (alternative and exception events) are listed in each use case.

| Use Case ID: | 1 | | |
| --- | --- | --- | --- |
| Use Case Name: | Verify Login Credentials | | |
| Created By: | Heng Zeng Xi | Last Updated By: | Chong Zhi Hen |
| Date Created: | 29/08/2024 | Data Last Updated: | 11/11/2024 |

| Actor: | User, Admin, Database, System |
| --- | --- |
| Description: | This use case verifies the login credentials of a user attempting to access the system. The user enters their username and password, and the system checks if these credentials are stored in the database. If the credentials are valid, the user is granted access to the system. If the credentials are invalid, the user is prompted to re-enter their credentials, initiate a password recovery process or create a new account |
| Preconditions: | The user must have an existing account with valid credentials stored in the database |
| Postconditions: | 1. The user is successfully authenticated and granted access to the system, proceeding to the main menu 2. The user is not authenticated, and the system displays an error message, prompting the user to try again or reset their password |
| Priority: | High |
| Frequency of Use: | 1-2 times per day |
| Flow of Events: | 1. User accesses the login page 2. User enters credentials 3. User submits the login form 4. System validates credentials with database 5. If valid, the system grants access and the user proceeds to the main menu. 6. If invalid, the system denies access and prompts for re-entry or password recovery. |
| Alternative Flows: | AF-S1: User enters incorrect credentials   1. The system detects that the username or password is incorrect 2. The system displays an error message: "Invalid username or password. Please try again." 3. The user is returned to the login page to re-enter their credentials. 4. Return to step 1   AF-S2: User leaves required fields empty   1. The system detects that one or more required fields are empty. 2. The system displays an error message: "Please enter both username and password." 3. The user is prompted to fill in the missing fields and resubmit the form. 4. Return to step 3   AF-S3: User selects 'Forgot Password'   1. User clicks the "Forgot Password" button. 2. System redirects the user to the password recovery process. 3. Return to the login process after password reset or when the user cancels the recovery process.   AF-S4:User Selects 'Create New Account'   1. User attempts to log in but does not have an existing account. 2. System displays an error message: "No account found with the entered credentials." 3. System provides the option: "Don't have an account? Create a new one." 4. User selects "Create New Account." 5. System redirects the user to the Register Account process. |
| Exceptions: | EX-S1: System unable to validate credentials due to connectivity issues   1. The system displays an error message: "Unable to verify credentials at this time. Please try again later." 2. The user is advised to try logging in again after some time or contact support |
| Includes: | Register Account |
| Special Requirements: | N/A |
| Assumptions: | N/A |
| Notes & Issues: | N/A |

| Use Case ID: | 2 | | |
| --- | --- | --- | --- |
| Use Case Name: | Register Account | | |
| Created By: | Heng Zeng Xi | Last Updated By: | Heng Zeng Xi |
| Date Created: | 06/09/2024 | Data Last Updated: | 15/10/2024 |

| Actor: | User, Admin, Database, System |
| --- | --- |
| Description: | This use case describes the process by which a new user or admin creates an account in the system. It includes entering personal information and setting up security details. Admins can only create one account, and subsequent accounts are user-only. The registration page is accessed after navigating through the login selection screen, where the user or admin chooses their login type. |
| Preconditions: | 1. The user or admin does not have an existing account. 2. The login selection page is available, and the appropriate login type (User or Admin) has been chosen. 3. For admins, no existing admin account is registered. |
| Postconditions: | 1. A new account is created in the database. 2. The system redirects the user or admin to the login page. |
| Priority: | High |
| Frequency of Use: | As needed when new users join. |
| Flow of Events: | Login Selection Page:   1. The system displays a page with two options: User Login/Register and Admin Login/Register 2. The user or admin selects the appropriate option   User Flow:   * 1. The user selects the **User Login/Register** button.   2. The system navigates to the **User Login page**, which includes a   **Register** option.   * 1. The user clicks on **Register**. |

|  | 1. The user fills in the required information, including name, username, and password. 2. The user submits the registration form. 3. The system checks for duplicate usernames. 4. If the username is unique, the system creates a new user account and redirects the user to the **User Login page**.   Admin Flow:   * 1. The admin selects the **Admin Login/Register** button.   2. The system navigates to the **Admin Login page**, which includes a **Register** option.   3. The admin clicks on **Register**.   4. The admin fills in the required information, including name, username, and password.   5. The system checks if an admin account already exists   6. If an admin account already exists, the system shows a message: **"**Admin account already exists. Please contact the admin for further access."   7. If no admin account exists, the system creates a new admin account and redirects the admin to the Admin Login page**.** |
| --- | --- |
| Alternative Flows: | AF-S1: User Decides to Cancel Registration   1. User navigates to the registration page. 2. At any point before submitting the form, the user decides not to continue. 3. User exits the registration page without saving any data. 4. System discards any input data and does not create an account.   AF-S2:Username Already in Use   1. The user or admin fills out the registration form and enters a username. 2. The system checks the username and finds it is already associated with an existing account. 3. The system displays an error message informing the user or admin that the username is in use. |
| Exceptions: | EX-S1: Failure to Create Account   1. The system fails to create the account due to a technical issue. 2. The system displays an error message: **"Unable to create an account at this time. Please try again later."** 3. The user or admin is advised to try again later. |
| Includes: | N/A |

| Special Requirements: | N/A |
| --- | --- |
| Assumptions: | N/A |
| Notes & Issues: | N/A |

| Use Case ID: | 3 | | |
| --- | --- | --- | --- |
| Use Case Name: | Navigating Dashboard | | |
| Created By: | Heng Zeng Xi | Last Updated By: | Chong Zhi Hen |
| Date Created: | 04/09/2024 | Data Last Updated: | 05/09/2024 |

| Actor: | User, Admin, System |
| --- | --- |
| Description: | This use case begins once the user is logged into the application. It allows the user to navigate through various features of the dashboard, such as viewing electricity usage, tracking estimated monthly bills, and monitoring individual appliances. |
| Preconditions: | Users must be logged in and authenticated. |
| Postconditions: | Users can access different functionalities from the dashboard related to energy management. |
| Priority: | High |
| Frequency of Use: | Multiple use per week |
| Flow of Events: | 1. User logs in and is directed to the dashboard 2. User views general electricity usage of all connected appliances. 3. User views the individual appliance's electricity usage details. 4. User view estimated monthly electricity bills. 5. User navigates to device management 6. User manage notification settings 7. User navigates to other sections or logs out. |

| Alternative Flows: | AF-S1: User attempts to access a non-responsive feature.   1. User selects a feature from the dashboard. 2. System fails to load the selected feature due to a network or server error. 3. System displays an error message and prompts the user to retry or return to the main dashboard. 4. User retries or returns to the main dashboard. 5. Return to step 1.   AF-S2: User changes mind about viewing details.   1. User is in a specific section accessed from the dashboard. 2. User decides not to make any changes or entries and wishes to return to the main dashboard. 3. User selects the option to return to the main dashboard without making any changes. 4. System navigates the user back to the main dashboard. 5. Return to step 1. |
| --- | --- |
| Exceptions: | EX-S1: User not logged in   1. The system detects that no user is currently logged in and displays an error message: "You are not logged in. Please log in to continue accessing the dashboard." 2. The system prompts the user to log in by redirecting them to the login page |
| Includes: | Changing Personal Information, Changing of settings, Manage Notification, Device Management |
| Special Requirements: | N/A |
| Assumptions: | Users are able to log in. |
| Notes & Issues: | N/A |

| Use Case ID: | 4 | | |
| --- | --- | --- | --- |
| Use Case Name: | Changing Personal Information | | |
| Created By: | Heng Zeng Xi | Last Updated By: | Chong Zhi Hen |
| Date Created: | 29/08/2024 | Data Last  Updated: | 11/11/2024 |

| Actor: | User, Admin, System, Database |
| --- | --- |
| Description: | This use case begins when the user successfully logs into the application and is loaded into the Dashboard page. It covers functionalities allowing users to manage and interact with their account settings, specifically for updating personal information such as username, email address, and  password. |
| Preconditions: | Users must be logged in and authenticated. |
| Postconditions: | Users can update personal details (username, email address) and change their password. |
| Priority: | High |
| Frequency of Use: | 1 to 2 times |
| Flow of Events: | 1. User navigates to the account details in the dashboard after successful login. 2. User can change their username 3. User can change their email 4. User change their name 5. User changes the account password. 6. User saves changes and sends them back to the dashboard |
| Alternative Flows: | AF-S2: User decides not to update personal details   1. User navigates to update personal details but decides not to make any changes. 2. User selects the option to go back or exit without saving. 3. System does not make any changes and returns the user to the main account settings menu. 4. Return to step 1.   AF-S3: User decides against changing the password   1. User selects the change password option but decides not to proceed. 2. User chooses to cancel or go back. 3. System cancels the password change process and retains the current password. 4. Return to step 1.   AF-S5: User navigates away before saving changes   1. While making changes in any account settings, the user navigates   away from the page without saving.   1. System prompts the user to save or discard changes before exiting. 2. If the user chooses to discard, the system does not save changes and returns the user to the previous menu. 3. If the user chooses to save, the system applies changes and then returns to the previous menu. 4. Return to step 1. |
| Exceptions: | EX-S1: User not logged into their account   1. The system prompts the user to log in by redirecting them to the login page |
| Includes: | N/A |
| Special Requirements: | N/A |
| Assumptions: | User can log in |
| Notes & Issues: | N/A |

| Use Case ID: | 5 | | |
| --- | --- | --- | --- |
| Use Case Name: | Device Management | | |
| Created By: | Heng Zeng Xi | Last Updated By: | Chong Zhi Hen |
| Date Created: | 04/09/2024 | Data Last Updated: | 06/11//2024 |

| Actor: | User, Admin, System, Database |
| --- | --- |
| Description: | This use case is for users to manage their devices. Users will be able to see which appliances they have added, average power consumption and duration of use. |
| Preconditions: | 1. User has logged in and pressed on manage my devices |
| Postconditions: | 1. User can see, edit, add and remove the devices |
| Priority: | Medium |
| Frequency of Use: | 1-2 times per month |
| Flow of Events: | 1. User press on manage my devices 2. They are able to view the list of devices, along with the power usage and duration 3. They can see more of list by scrolling up and down 4. They can use back or press on dashboard to go back to dashboard |
| Alternative Flows: | AF-S1: User want to edit a device power usage   1. User press on manage my devices 2. They are able to view the list of devices, along with the power usage and duration 3. They can see more of list by scrolling up and down 4. When they want to edit the power usage of a device, they press edit. 5. They will be moved to a menu where they can change the Name, Power Usage, duration(hours) and duration(minutes) 6. When they are okay with it they can press the save device. 7. They can use back or press on dashboard to go back to dashboard   AF-S2: User want to discard while editing   1. User press on manage my devices 2. They are able to view the list of devices, along with the power usage and duration 3. They can see more of list by scrolling up and down 4. When they want to edit the power usage of a device, they press edit. 5. They will be moved to a menu where they can change the Name, Power Usage, duration(hours) and duration(minutes) 6. The user can use back or press on the Discard option. 7. They can use back or press on dashboard to go back to dashboard |
| Exceptions: | EX-S1: Missing value   1. If the user tries to press save when there is missing value it will warn the user and stop the user from saving. |
| Includes: | Adding New Device, Electrical Consumption Calculation |
| Special Requirements: | N/A |
| Assumptions: | User can log into the app. |
| Notes & Issues: | N/A |

| Use Case ID: | 6 | | |
| --- | --- | --- | --- |
| Use Case Name: | Adding New Device | | |
| Created By: | Zhi Hen | Last Updated By: | Chong Zhi Hen |
| Date Created: | 30/8/2024 | Data Last Updated: | 11/11/2024 |

| Actor: | User, Database |
| --- | --- |
| Description: | This use case allows users to add a new device to their list of devices. The app already has predefined values for common devices, such as average power consumption, stored in the database. The user selects a device from a list (e.g., fridge, air conditioner, microwave), and the system automatically calculates the device’s power usage based on these predefined values. The database will store the newly added device in the user’s list. |
| Preconditions: | User is in the manage devices menu |
| Postconditions: | The device will be added to the list of devices |
| Priority: | Medium |
| Frequency of Use: | Everytime the user need to add a device |
| Flow of Events: | 1. User presses on the + button the manage devices menu 2. A new menu pop out with Device, Power Usage and Duration of use 3. User first press on device and a drop down of common appliances will appear 4. User will press on the device they want to add 5. The drop down will close and the device user has selected will appear 6. The value of Power Usage will change to the default value of the appliance 7. User will key in device name 8. User will then press on the duration of use 9. User will then key in the value for the duration of use 10. User will press ADD to add the new device 11. The system stores the device information in the database. |
| Alternative Flows: | AF-S1: User know the power usage value   1. User presses on the + button the manage devices menu 2. A new menu pop out with Device, Power Usage and Duration of use 3. User first press on device and a drop down of common appliances will appear 4. User will press on the device they want to add 5. The drop down will close and the device user has selected will appear 6. The value of Power Usage will change to the default value of the appliance 7. The User presses the box on power usage 8. The User will key in their desired power usage value 9. User will then press on the duration of use 10. User will then key in the value for the duration of use 11. User will press ADD to add the new device   AF-S2: User device is not on default devices list   1. User presses on the + button the manage devices menu 2. A new menu pop out with Device, Power Usage and Duration of use 3. User first press on device and a drop down of common appliances will appear 4. User will press on the others 5. The drop down will close and the keyboard will appear 6. User will then key in the device name and presses done 7. The value of Power Usage will be empty 8. The User presses the box on power usage and an onscreen number pad will appear to allow them to key in the value. 9. When they are okay with it they can press done on the number pad to remove the number pad 10. User will then press on the duration of use 11. User will then key in the value for the duration of use 12. User will press ADD to add the new device |

| Exceptions: | EX-S1: The Duration of use entered is more than 24h   1. The system displays an error message. 2. The user is advised to adjust the duration of use within 24 hours and attempt to add the device again. |
| --- | --- |
| Includes: | Device Management |

| Special Requirements: | User is already in the manage my device menu |
| --- | --- |
| Assumptions: | We have default power consumption value using the database |
| Notes & Issues: | N/A |

| Use Case ID: | 7 | | |
| --- | --- | --- | --- |
| Use Case Name: | Remove Device | | |
| Created By: | Tan Zhe Kai | Last Updated By: | Tan Zhe Kai |
| Date Created: | 20/09/2024 | Data Last Updated: | 09/11/2024 |

| Actor: | User, Database |
| --- | --- |
| Description: | This use case allows users to remove an existing device from the list of devices. |
| Preconditions: | User is in the manage devices menu. |
| Postconditions: | The device will be removed from the list of devices |
| Priority: | Medium |
| Frequency of Use: | Anytime the user wishes to remove a device |
| Flow of Events: | 1. User clicks on manage devices button. 2. User press on Remove option on the device 3. The device is removed from the list of devices and updates the database. |
| Alternative Flows: | AF-S1: User removes device on accident.   1. User clicks on “Remove” for a device. 2. The system will remove the device. 3. User has to add the device again and manually input the device information again. |
| Exceptions: | EX-S1: System fails to remove the device.   1. User clicks on “Remove” for a device. 2. The system fails to update the list of devices specific to the user. 3. User has to contact the administrator to resolve the issue of removing the device. |
| Includes: | Device Management |
| Special Requirements: | The user is already in the “Manage Devices” menu |
| Assumptions: | N/A |
| Notes & Issues: | N/A |

| Use Case ID: | 8 | | |
| --- | --- | --- | --- |
| Use Case Name: | Electrical Consumption Calculation | | |
| Created By: | Zhi Hen | Last Updated By: | Chong Zhi Hen |
| Date Created: | 30/8/2024 | Data Last Updated: | 09/11/2024 |

| Actor: | User, Database |
| --- | --- |
| Description: | Using the parameters the User has provided, the app will calculate and give the user an overview of their energy consumption. They will be able to see an estimate of average energy consumption, which appliances are drawing the most electricity, the estimated electricity bill and more. |
| Preconditions: | User must have keyed in all of the required parameters and is on the device management menu |
| Postconditions: | The calculation is saved and displayed on dashboard |
| Priority: | Medium |

| Frequency of Use: | Whenever calculation is required |
| --- | --- |
| Flow of Events: | 1. Users navigate to the device management menu to review and adjust device parameters. 2. System calculates total energy usage based on updated device parameters. 3. Upon calculation completion, the dashboard refreshes to display new values and graphs showing energy distribution. |
| Alternative Flows: | AF-S1: User wants to modify parameters.   1. User navigates to the device management menu. 2. User adjusts one or more parameters related to the devices. 3. The system recalculates the values based on the new inputs. 4. The dashboard updates to reflect the new calculation results. 5. If satisfied, the user can go back to the main menu. If not, the user can continue to adjust parameters if further refinement is needed. 6. Return to step 1. |
| Exceptions: | EX-S1: Calculations of device usage do not tally.   1. User makes an action that results in updating the database. 2. The dashboard and device list do not calculate the latest device consumption and failed to display accurate information. 3. User has to contact the administrator to resolve the issue. |
| Includes: | User is logged in to the app. |
| Special | N/A |
| Requirements: | N/A |
| Assumptions: | The power usage is calculated based on average consumption and does not account for when devices draw more power under load. |
| Notes & Issues: | N/A |

| Use Case ID: | 9 | | |
| --- | --- | --- | --- |
| Use Case Name: | Generate and Export Reports | | |
| Created By: | Zhi Hen | Last Updated By: | Tan Zhe Kai |
| Date Created: | 05/09/2024 | Data Last Updated: | 09/11/2024 |

| Actor: | User |
| --- | --- |
| Description: | This use case allows the user to generate and export a PDF file of the dashboard which displays their historical energy consumption. The report contains detailed device usage statistics, comparisons with the latest average household consumption, and graphical representations of data to aid in understanding consumption trends. Users can also share reports via email or social media, enabling efficient communication of energy data with others. |
| Preconditions: | 1. User has logged into with their account 2. Historical data on energy consumption is available. 3. External services (e.g. email) are accessible. |
| Postconditions: | Users can view the dashboard report externally as a PDF file. |
| Priority: | Medium |
| Frequency of Use: | Monthly or as needed |
| Flow of Events: | 1. User navigates to the main dashboard. 2. User clicks on “Export PDF”. 3. The system processes the request and generates a dashboard PDF file. 4. The report is displayed to the user with options to download or export. 5. Users can choose to generate another report or return to the dashboard. 6. User selects the platform to share the report, and the system generates the file for sharing. |
| Alternative Flows: | AF-S1: User decides to not download/export report   1. After clicking on “Export PDF”, the report is generated and prompts the user to download or share to external platforms. 2. The user cancels the operation. 3. User returns to the dashboard. |
| Exceptions: | EX-S1: System error during report generation   1. User initiates the report generation process. 2. A system error occurs, preventing the report from being generated. 3. The system displays an error message detailing the issue and possibly suggesting steps to resolve it or try again. 4. Users may attempt to regenerate the report or contact support if the issue persists.   EX-S2: Connection Failure Prevents Sharing   1. The user attempts to share the report via an external platform. 2. A connection failure occurs, preventing the sharing process. 3. The system displays an error message prompting the user to check their internet connection.   EX-S3: Insufficient Storage for File Export   1. The user attempts to export the report. 2. The system notifies the user that there is insufficient storage on their device and suggests freeing up space. |
| Includes: | Navigating Dashboard |
| Special Requirements: | N/A |
| Assumptions: | The user has active accounts on the selected sharing platforms |
| Notes & Issues: | N/A |

| Use Case ID: | 10 | | |
| --- | --- | --- | --- |
| Use Case Name: | Energy Consumption Comparison | | |
| Created By: | Sanjeev | Last Updated  By: | Chong Zhi Hen |
| Date Created: | 13/09/2024 | Data Last Updated: | 11/11/2024 |

| Actor: | User |
| --- | --- |
| Description: | This use case allows users to compare their daily average to the current national daily average and give them advice on tips to reduce energy consumption. |
| Preconditions: | 1. Users must be logged into the app. 2. Users have entered their devices energy usage into the app |
| Postconditions: | 1. The system provides alerts when the user is close to exceeding their budget or reaching their energy-saving goals. 2. The system provides actionable recommendations to reduce energy consumption or stay within the budget. |
| Priority: | Medium |
| Frequency of Use: | Once per goal or when the user adjusts the goal. |
| Flow of Events: | 1. User loads into the dashboard 2. A graph representing different appliance using different amount of power compared to National average 3. Tell the User how close they are to the average and some statistics about their average device usage |
| Alternative Flows: | AF-S1: User is lower than national average   1. User loads into the dashboard 2. A graph representing different appliance using different amount of power compared to National average 3. Tell the User that they are lower than the national average and some advice to lower usage more. |
| Exceptions: | EX-S1: User has not key in any device   1. User loads into the dashboard 2. Tell user that no device has been added and advice them on how to add device |
| Includes: | Energy Consumption Monitoring  Report Generation(View reports based on their historical energy consumption)  Manage Notifications (to notify users when they're close to meeting their goals) |
| Special Requirements: | N/A |
| Assumptions: | 1. Historical consumption data is available 2. Users will adjust their energy consumption to meet the national average |

| Use Case ID: | 11 | | |
| --- | --- | --- | --- |
| Use Case Name: | Multi-User Account Management | | |
| Created By: | Sanjeev | Last Updated By: | Heng Zeng Xi |
| Date Created: | 13/09/2024 | Data Last Updated: | 15/10/2024 |

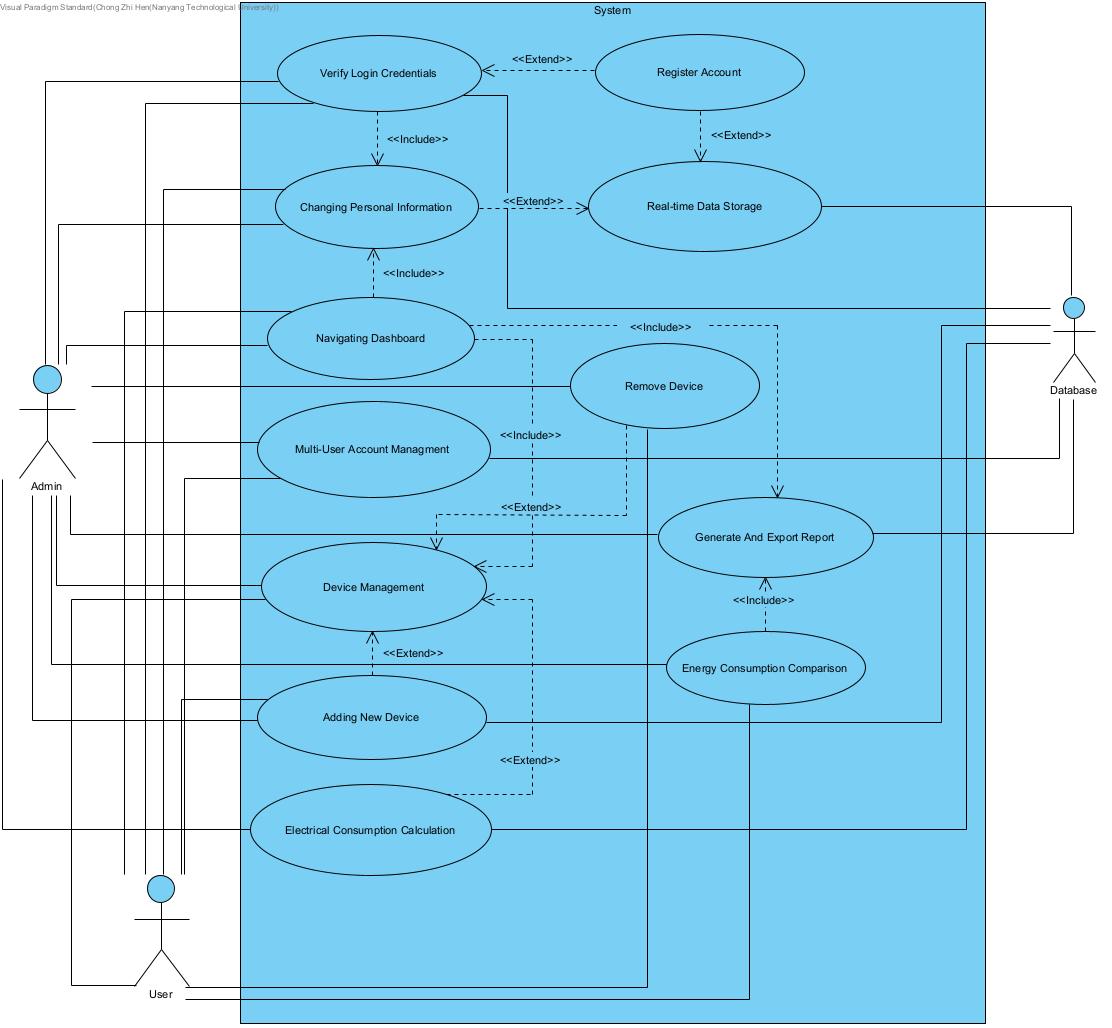
| Actor: | Primary User(Admin), Secondary Users |
| --- | --- |
| Description: | This use case allows households with multiple users to manage energy consumption through individual profiles under a shared account. Each user can manage their own appliances and view personalized energy tracking, while the primary user (admin) maintains control over appliance settings. The admin's role includes adding and updating appliances, along with setting power ratings based on evolving technology standards. The system automatically assigns roles: one admin account is created initially, and all subsequent accounts are automatically user accounts. |
| Preconditions: | 1. A primary user (admin) has created an account. 2. Secondary users automatically become regular users upon account creation. |
| Postconditions: | 1. Multiple users within a household can manage their appliances and view personalized energy data. 2. The primary user maintains administrative control, such as adding or removing appliances and the power ratings. |
| Priority: | Medium |
| Frequency of Use: | As needed. |
| Flow of Events: | 1. Primary able user views the list of user accounts created under the shared household account. |

|  | 1. The admin views or updates appliance information, such as adding new appliances or updating existing appliances’ power ratings based on new technology standards and access household-wide energy data. 2. Each user can log in, add appliances, and view their own energy data. |
| --- | --- |
| Exceptions: | EX-S1: System encounters an error when updating appliance data.   1. The system displays an error message and suggests retrying.   EX-S2:Appliance data fails to sync with all secondary users’ profiles after an update by the admin.   1. The system logs the error and attempts to resend the updated data until synchronization is complete. |
| Includes: | 1. User Account Management 2. Device Management |
| Special Requirements: | The system must differentiate between primary and secondary user permissions. |
| Assumptions: | Multiple users in a household will benefit from managing their own appliances. |
| Notes & Issues: | Clear user roles (admin vs. regular users) may be necessary to prevent unauthorized changes. |

| Use Case ID: | 12 | | |
| --- | --- | --- | --- |
| Use Case Name: | Real-time Data Storage | | |
| Created By: | Sanjeev | Last Updated By: | Tan Zhe Kai |
| Date Created: | 13/09/2024 | Data Last Updated: | 10/11/2024 |

| Actor: | User, Database |
| --- | --- |
| Description: | This use case ensures user data are stored in the database (SQLite). Data includes the user account details, the list of devices specific to the user and the default information of the various devices set by the system administrator. |
| Preconditions: | 1. Users must be logged in. 2. SQLite database functionality is working. |
| Postconditions: | Information about the user and devices is stored in the database. |
| Priority: | High |
| Frequency of Use: | As needed (e.g., after accidental data deletion or for data recovery). |
| Flow of Events: | 1. User interacts with an action (e.g. add a device, remove a device, change account details) that results in a need to update the database. 2. The database is updated with the new information. |
| Alternative Flows: | AF-S1: User cancels action to save the updated information of devices/account details.   1. User cancels the changes to be made. 2. System does not require to make any updates to the database. |
| Exceptions: | EX-S1: Connection Error preventing the update to the database.   1. System notifies the user of the issue and prompts them to try again once the connection is restored.   EX-S2: Insufficient storage space in the database.   1. System notifies the user of the storage issue. 2. Users should contact the administrator to resolve the issue.   EX-S3: User application is not responding.   1. Android system prompts the user that the application is not responding. 2. Users can choose to wait for the app to respond, close the app or view app info. 3. The user inputs will not be stored if the application is not responding before submission. |
| Includes: | SQLite database integration. |
| Special Requirements: | Require to set up the database in the backend. |
| Assumptions: | SQLite database is up to date and in working condition. |
| Notes & Issues: | 1. The system should securely encrypt all user data before saving it to the local database. 2. Users may experience data inconsistencies if they restore data on a different device with incompatible settings. |

2. Use Case Diagram



***Software Requirements Specification for <Project> Page 1***