# Functional Requirement

#### 1.1 Asset Registration Function

\*\*Function Number: FR-01\*\*

\*\*Description:\*\* System administrators can enter information for new assets, including asset ID, name, category, status, purchase date, value, etc.

\*\*Input:\*\* Asset ID, name, category ID, status, purchase date, value, etc.

\*\*Output:\*\* The newly added asset record will be saved to the database and the asset list will be updated. The system administrator interface displays the latest asset registration list.

#### 1.2 Asset Usage Function

\*\*Function Number: FR-02\*\*

\*\*Description:\*\* Ordinary users can register the assets they use and select the return date. The system needs to record the usage of the assets and the return date.

\*\*Input:\*\* Asset ID, start of usage date, end of usage date, user ID.

\*\*Output:\*\* The asset status is updated to in use, and the return date record is updated. The system administrator interface displays the latest asset usage list.

#### 1.3 Asset Transfer Function

\*\*Function Number: FR-03\*\*

\*\*Description:\*\* System administrators can register asset transfer records, including transfer asset ID, transfer user ID, transfer date, purpose of transfer, etc.

\*\*Input:\*\* Asset ID, transfer user ID, transfer date, purpose of transfer.

\*\*Output:\*\* The transfer record is saved to the database and the asset list is updated. The system administrator interface displays the latest asset transfer list.

#### 1.4 Asset Return Function

\*\*Function Number: FR-04\*\*

\*\*Description:\*\* Ordinary users can register the return of assets, including return date, return user ID, reason for return, fine amount, etc.

\*\*Input:\*\* Asset ID, return user ID, return date, reason for return, fine amount.

\*\*Output:\*\* The asset status is updated to returned, the return record is saved to the database, and the asset list is updated. The system administrator interface displays the latest asset return list.

#### 1.5 Report Generation Function

\*\*Function Number: FR-05\*\*

\*\*Description:\*\* System administrators can generate asset status reports, user usage reports, etc., based on user input query conditions.

\*\*Input:\*\* Report type (e.g., asset status report, user usage report), query conditions (e.g., time range, asset category).

\*\*Output:\*\* The generated report is displayed in the user interface, and users can view and export the report.

#### 1.6 Permission Allocation Function

\*\*Function Number: FR-06\*\*

\*\*Description:\*\* System administrators can assign operational permissions to ordinary users, such as registration, usage, transfer, return, etc.

\*\*Input:\*\* User ID, permission type assigned (e.g., registration, usage, transfer, return).

\*\*Output:\*\* Permission allocation successful, the system administrator interface displays the latest permission allocation list.

#### 1.7 Approval Process Management Function

\*\*Function Number: FR-07\*\*

\*\*Description:\*\* System administrators can approve asset transfers, returns, usage, and other operations, and record approval comments and status.

\*\*Input:\*\* Asset ID, approval user ID, approval comments.

\*\*Output:\*\* Approval records are saved to the database, and the system administrator interface displays the latest approval status list.

#### 1.8 Authentication Management Function

\*\*Function Number: FR-08\*\*

\*\*Description:\*\* System administrators can manage user authentication information and verify user identities through the authentication system.

\*\*Input:\*\* User ID, authentication type, authentication method.

\*\*Output:\*\* Authentication results are recorded and saved to the database, and the system administrator interface displays the latest authentication list.

#### 1.9 Email Notification Function

\*\*Function Number: FR-09\*\*

\*\*Description:\*\* System administrators can configure email notification settings to send email notifications when important events such as asset transfers and returns occur.

\*\*Input:\*\* Email content, email recipients.

\*\*Output:\*\* Email sent successfully, and relevant log records are saved to the database.

#### 1.10 Data Export Function

\*\*Function Number: FR-10\*\*

\*\*Description:\*\* System administrators can export asset information, usage records, return records, reports, and other data to Excel or other format files.

\*\*Input:\*\* Export type (e.g., asset information, usage records, return records, reports).

\*\*Output:\*\* The exported file is saved to the specified path, and the system administrator interface displays a successful export prompt.

#### 1.11 User Management Function

\*\*Function Number: FR-11\*\*

\*\*Description:\*\* System administrators can manage user information, including adding new users, viewing user information, editing user information, deleting users, etc.

\*\*Input:\*\* User information (e.g., username, password, role, contact information).

\*\*Output:\*\* User information registration or update successful, and the system administrator interface displays the latest user list.

#### 1.12 System Administrator Function

\*\*Function Number: FR-12\*\*

\*\*Description:\*\* System administrators can perform routine maintenance and management operations of the system, such as setting system parameters, viewing system logs, etc.

\*\*Input:\*\* System parameter settings information, log viewing request.

\*\*Output:\*\* System parameter settings successful or log records displayed successfully, and the system administrator interface displays the operation result.