# Functional Requirement

#### 1.1 Asset Registration Function

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

\*\*Description:\*\* Users can register newly acquired assets, fill in relevant information, and submit it to the system. The system administrator reviews and confirms the asset registration.

\*\*Input:\*\* User ID (UserID), Asset Name (AssetName), Purchase Date (PurchaseDate), Asset Price (Price), Asset Description (Description), Asset Category ID (CategoryID)

\*\*Output:\*\* Asset ID (AssetID)

#### 1.2 Asset Usage Function

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

\*\*Description:\*\* Users can apply to use registered assets, and the system administrator reviews and confirms the usage status.

\*\*Input:\*\* User ID (UserID), Asset ID (AssetID)

\*\*Output:\*\* Approval Process ID (ProcessID), Approval Status (Status)

#### 1.3 Asset Transfer Function

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

\*\*Description:\*\* Users can initiate asset transfer requests, and the system administrator reviews and updates the asset ownership information.

\*\*Input:\*\* User ID (UserID), Asset ID (AssetID), Target User ID (TargetUserID)

\*\*Output:\*\* Approval Process ID (ProcessID), Approval Status (Status)

#### 1.4 Asset Return Function

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

\*\*Description:\*\* Users can initiate asset return requests, and the system administrator reviews and updates the asset status.

\*\*Input:\*\* User ID (UserID), Asset ID (AssetID)

\*\*Output:\*\* Approval Process ID (ProcessID), Approval Status (Status)

#### 1.5 Report Analysis Function

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

\*\*Description:\*\* Users can query and generate asset-related reports based on different conditions. The system supports custom report templates.

\*\*Input:\*\* User ID (UserID), Asset ID (AssetID), Report Type (ReportType), Query Conditions (QueryCondition)

\*\*Output:\*\* Report ID (ReportID), Report Data (Data)

#### 1.6 Permission Allocation Function

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

\*\*Description:\*\* System administrators can assign and modify user permissions, including but not limited to asset management and approval permissions.

\*\*Input:\*\* Administrator ID (ManagerID), User ID (UserID), Permission List (PermissionList)

\*\*Output:\*\* Updated user permission information

#### 1.7 Approval Workflow Function

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

\*\*Description:\*\* The system supports approval process management for asset usage, transfer, return, and other operations. Both users and administrators can view the approval status.

\*\*Input:\*\* User ID (UserID), Administrator ID (ManagerID), Approval Process ID (ProcessID)

\*\*Output:\*\* Approval Status (Status), Approval Time (ApprovalTime)

#### 1.8 Data Export Function

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

\*\*Description:\*\* Users can export information on assets, approval processes, and reports as Excel files.

\*\*Input:\*\* User ID (UserID), Export Type (ExportType), Export Scope (ExportScope)

\*\*Output:\*\* Excel file (.xlsx) containing relevant data

#### 1.9 Authentication Mechanism Function

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

\*\*Description:\*\* The system should provide a high-availability authentication mechanism, including user registration and login verification functions.

\*\*Input:\*\* User ID (UserID), Username (Name), Password (Password), Registration Time (RegisterTime)

\*\*Output:\*\* Authentication result (Success/Failure)

#### 1.10 Email Notification Function

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

\*\*Description:\*\* The system should send email notifications to relevant personnel upon key operations such as approval completion.

\*\*Input:\*\* User ID (UserID), Administrator ID (ManagerID), Operation Type (OperationType), Operation Details (OperationDetails)

\*\*Output:\*\* Send status (Email sent successfully/failed)

#### 1.11 Asset Category Management Function

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

\*\*Description:\*\* System administrators can add, modify, and delete asset categories.

\*\*Input:\*\* Administrator ID (ManagerID), Category ID (CategoryID), Category Name (CategoryName), Description (Description)

\*\*Output:\*\* Updated list of asset categories

#### 1.12 Asset Status Management Function

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

\*\*Description:\*\* System administrators can maintain asset statuses, including adding, modifying, and deleting statuses.

\*\*Input:\*\* Administrator ID (ManagerID), Status ID (StatusID), Status Name (StatusName), Description (Description)

\*\*Output:\*\* Updated list of asset statuses

#### 1.13 Approval Node Management Function

\*\*Function Number:\*\* FR-13

\*\*Description:\*\* System administrators can set up various nodes in the approval process, including node names, node statuses, and other information.

\*\*Input:\*\* Administrator ID (ManagerID), Process ID (ProcessID), Node Name (NodeName), Node Status (NodeStatus)

\*\*Output:\*\* Updated list of approval nodes