Functional Requirement

1.1 Asset Registration Function

Function Number: FR-01

Description: Users can register new assets, and the system records detailed asset information and assigns an initial status.

Input: User ID (UserID), Asset Name (Name), Type (Type), Purchase Date (PurchaseDate), Purchase Price (PurchasePrice), Location (Location).

Output: Successfully registered asset information (AssetID, Name, Type, PurchaseDate, PurchasePrice, Location, StatusID, UserID).

1.2 Asset Usage Function

Function Number: FR-02

Description: Users can apply to use registered assets, and the system records the usage request and updates the asset status.

Input: User ID (UserID), Asset ID (AssetID).

Output: Updated asset information (AssetID, UserID, StatusID) and related approval process information (ApprovalID, ProcessType, RequestUserID, ApprovalStatus, ApprovalDate).

1.3 Asset Transfer Function

Function Number: FR-03

Description: Users can initiate asset transfer requests, and the system records the transfer details and starts the corresponding approval process.

Input: Current Holder ID (UserID), Target Holder ID (TargetUserID), Asset ID (AssetID).

Output: Asset status update (AssetID, UserID) and approval process information (ApprovalID, ProcessType, RequestUserID, ApprovalStatus, ApprovalDate).

1.4 Asset Return Function

Function Number: FR-04

Description: Users can return assets, and the system records the return operation and updates the asset status.

Input: User ID (UserID), Asset ID (AssetID).

Output: Updated asset status (AssetID, UserID, StatusID).

1.5 Report Analysis Function

Function Number: FR-05

Description: Users can generate asset-related reports, and the system generates reports based on user-selected parameters and provides export options.

Input: User ID (UserID), Report Type (ReportType), Generation Date (GenerationDate).

Output: Report content (ReportID, ReportType, GenerationDate, DataContent).

1.6 Permission Allocation and Approval Function

Function Number: FR-06

Description: Administrators can assign user permissions and approve user operation requests.

Input: Administrator ID (ManagerID), User ID (UserID), Permission ID (PermissionID), Approval Process ID (ApprovalID).

Output: Updated user permission information (UserID, PermissionID) and approval record (RecordID, ApprovalID, Action, ActionDate).

1.7 Data Import and Export Function

Function Number: FR-07

Description: The system supports importing and exporting asset information, user information, approval information, report information, etc., to external files.

Input: Data type (e.g., assets, users), export format (e.g., .xlsx).

Output: Exported Excel file or other format file containing information on relevant data entities.

1.8 Approval Workflow Mechanism Function

Function Number: FR-08

Description: The system automatically tracks the approval process and routes it to the next approval node based on predefined rules.

Input: Approval Process ID (ApprovalID), Approval Status (ApprovalStatus).

Output: Updated approval process information (ApprovalID, ProcessType, RequestUserID, ApprovalStatus, ApprovalDate).

1.9 High Availability Authentication Mechanism Function

Function Number: FR-09

Description: The system provides a secure user authentication mechanism to ensure the accuracy and security of user identities.

Input: User ID (UserID), Password (Password).

Output: Authentication result (Pass/Fail).

1.10 Approval Record Management Function

Function Number: FR-10

Description: Administrators can view and edit approval records to ensure the transparency and traceability of the approval process.

Input: Administrator ID (ManagerID), Approval Record ID (RecordID).

Output: Approval record details (RecordID, ApprovalID, Action, ActionDate).

1.11 Asset Status Management Function

Function Number: FR-11

Description: The system records and maintains asset status information for easy tracking of asset conditions by users and administrators.

Input: Asset ID (AssetID), Status ID (StatusID).

Output: Asset status information (StatusID, StatusName, Description).

1.12 View System Logs Function

Function Number: FR-12

Description: Administrators can view system operation logs for monitoring system operations and troubleshooting.

Input: Administrator ID (ManagerID).

Output: System log details (LogID, UserID, Action, ActionDate, Details).