Functional Requirement

1.1 Asset Registration Function

Function Number: FR-01

Description: Users can fill in the basic information of assets and submit asset registration requests. The registration request must go through an approval process. Once approved, the asset information will be saved to the database and the asset list will be updated.

Input: Asset name, asset number, asset category, purchase date, storage location, user, asset status.

Output: Asset record in the database, updated asset list, operation log records.

1.2 Asset Usage Function

Function Number: FR-02

Description: Users can apply to use specified assets. The system must verify whether the user has the right to use the asset and submit the usage request to the approval process. Once approved, the system updates the asset status to "In Use" and records the user and usage time.

Input: Asset number, user, start time of use, end time of use, purpose of use.

Output: Asset usage record in the database, updated asset status, operation log records.

1.3 Asset Transfer Function

Function Number: FR-03

Description: Users can apply for asset transfer requests. The system must verify whether the user has the right to transfer the asset and submit the transfer request to the approval process. Once approved, the system updates the asset user information and adjusts the asset status.

Input: Asset number, current user, target user, reason for transfer, transfer time.

Output: Asset transfer record in the database, updated asset information, operation log records.

1.4 Asset Return Function

Function Number: FR-04

Description: Users can apply to return assets. The system must verify whether the user has the right to return the asset and submit the return request to the approval process. Once approved, the system updates the asset status to "Available" or "Returned" and clears the asset user information.

Input: Asset number, returner, return time, reason for return.

Output: Asset return record in the database, updated asset status, operation log records.

1.5 Asset Deletion Function

Function Number: FR-05

Description: Users can apply to delete assets. The system must verify whether the user has the right to delete the asset and submit the deletion request to the approval process. Once approved, the system deletes the asset record from the database and updates the asset list.

Input: Asset number, deleter, reason for deletion, deletion time.

Output: Asset deletion record in the database, updated asset list, operation log records.

1.6 Approval Process Management Function

Function Number: FR-06

Description: System administrators can configure approval process rules, and approvers can approve asset-related operation requests. The system automatically sends approval notifications based on the configured approval process and records the approval results and logs.

Input: Request type (asset registration, asset usage, asset transfer, asset return, asset deletion, etc.), approver information, approval result (approved or rejected), approval time.

Output: Approval process configuration information, updated approval results, operation log records.

1.7 Asset Query Function

Function Number: FR-07

Description: Users can query asset information based on conditions such as asset number, name, category, user, status, etc., and can export the query results as files in specified formats.

Input: Query conditions such as asset number, asset name, asset category, user, asset status, etc.

Output: List of matching asset information, exported file (in formats such as Excel, PDF, CSV, etc.).

1.8 Report Analysis Function

Function Number: FR-08

Description: Users can generate various types of reports, including asset usage statistics, asset transfer records, asset return status, etc., and can export report files.

Input: Report type (such as asset usage statistics, asset transfer records, etc.), time range, asset category, user, etc., as filtering conditions.

Output: Generated report (with visual content such as tables, bar charts, pie charts, etc.), exported file (in formats such as Excel, PDF, CSV, etc.).

1.9 Asset Status Management Function

Function Number: FR-09

Description: Users or system administrators can modify the asset status and submit a status change request. The system executes the status change based on the approval process, updates the asset status upon approval, and records the operation log.

Input: Asset number, target status (such as "Available," "In Use," "Damaged," "Returned," etc.), reason for status change.

Output: Updated asset status in the database, operation log records.

1.10 User Permission Management Function

Function Number: FR-10

Description: System administrators can view, assign, or modify user permissions. The system must ensure that permission assignments comply with organizational security policies and record the operation logs for permission assignments.

Input: User number, permission type (such as asset registration, asset usage, asset transfer, asset return, data import, data export, report analysis, etc.), operation to assign or modify permissions.

Output: Updated user permission configuration information, operation log records.

1.11 Data Import Function

Function Number: FR-11

Description: System administrators can import files containing asset data. The system must verify the file format and save the data to the database.

Input: Asset data file in Excel or CSV format, containing fields such as asset number, asset name, asset category, purchase date, storage location, user, asset status, etc.

Output: Asset data records in the database, operation log records.

1.12 Data Export Function

Function Number: FR-12

Description: Users can export asset data to files in specified formats. The system must generate files based on the user-selected data range and format.

Input: User-selected range of asset data, export format (Excel, PDF, CSV, etc.).

Output: Exported asset data file, operation log records.

1.13 Authentication Mechanism Management Function

Function Number: FR-13

Description: System administrators can configure the system's authentication policies, including password complexity, login failure lockout, etc. The system performs user authentication based on the configured policies.

Input: Authentication policy type (such as password complexity, number of login failures allowed, etc.), policy value (such as password length, lockout duration, etc.).

Output: Updated configuration information for the system's authentication mechanism, operation log records.

1.14 Audit Log Viewing Function

Function Number: FR-14

Description: System administrators or users can query audit logs, including asset-related operations, approval processes, permission assignments, system setting changes, etc., and can export the query results.

Input: Query conditions such as operation type, operator, time range, related asset number, etc.

Output: List of matching audit logs, exported file (in formats such as Excel, PDF, CSV, etc.), operation log records.

1.15 System Setting Change Function

Function Number: FR-15

Description: System administrators can modify system settings, including system language, default time zone, notification methods, approval process rules, etc., and ensure that changes comply with organizational policies.

Input: System setting items (such as system language, default time zone, etc.), setting values.

Output: Updated system setting information, configuration adjustments for related functional modules, operation log records.

1.16 Asset Usage Record Viewing Function

Function Number: FR-16

Description: Users or system administrators can query asset usage records, including user, usage time, usage status, etc., and can export the query results.

Input: Query conditions such as asset number, user, time range, etc.

Output: List of matching asset usage records, exported file (in formats such as Excel, PDF, CSV, etc.), operation log records.

1.17 Asset Registration Record Viewing Function

Function Number: FR-17

Description: Users or system administrators can query asset registration records, including registrar, registration time, asset information, etc., and can export the query results.

Input: Query conditions such as asset number, registrar, time range, etc.

Output: List of matching asset registration records, exported file (in formats such as Excel, PDF, CSV, etc.), operation log records.

1.18 Asset Return Record Viewing Function

Function Number: FR-18

Description: Users or system administrators can query asset return records, including returner, return time, reason for return, etc., and can export the query results.

Input: Query conditions such as asset number, returner, time range, etc.

Output: List of matching asset return records, exported file (in formats such as Excel, PDF, CSV, etc.), operation log records.

1.19 Asset Transfer Record Viewing Function

Function Number: FR-19

Description: Users or system administrators can query asset transfer records, including transfer initiator, target user, transfer time, reason for transfer, etc., and can export the query results.

Input: Query conditions such as asset number, transfer initiator, target user, time range, etc.

Output: List of matching asset transfer records, exported file (in formats such as Excel, PDF, CSV, etc.), operation log records.