Functional Requirement

1.1 Asset Registration Function

Function Number: FR-01

Description: Users can fill in the relevant information of new assets through the asset registration template and submit it to the system. After verifying the user's permissions and the completeness of the template, the system saves the asset information, triggers the approval process, and sends an email notification to the approver.

Input: Asset registration template (format: Excel, CSV, etc.), containing fields such as asset number, name, type, description, location, status, purchase date, purchase cost, etc.

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record.

1.2 Asset Management Function

Function Number: FR-02

Description: Users can select specific assets on the asset management interface for editing or deletion operations. After verifying the user's permissions, the system checks whether the modifications comply with the specifications of the data import and export template and saves the updated asset information. If the operation involves approval, the system will trigger the approval process and send an email notification.

Input: Asset number selected by the user and modified asset information (such as asset status, location, description, etc.).

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record.

1.3 Asset Query Function

Function Number: FR-03

Description: Users can enter conditions such as asset number, name, type, and status on the asset query interface to search for asset information. After verifying the user's permissions, the system returns a list of assets that meet the conditions and records the query operation log. If the query conditions involve sensitive asset information, the system will trigger the approval process and send an email notification.

Input: Asset query conditions (such as asset number, name, type, status, time range, etc.).

Output: List of assets that meet the conditions, query operation log, approval process trigger record, approver email notification record.

1.4 Asset Transfer Function

Function Number: FR-04

Description: Users can fill in the target user or department information through the asset transfer template and submit a transfer application. After verifying the user's permissions and the completeness of the template, the system updates the asset ownership in the asset data entity and triggers the approval process. The system sends an email notification to the approver.

Input: Asset transfer template (format: Excel, CSV, etc.), containing fields such as asset number, current user/department, target user/department, reason for transfer, etc.

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record.

1.5 Asset Return Function

Function Number: FR-05

Description: Users can fill in the return information through the asset return template and submit a return application. After verifying the user's permissions and the completeness of the template, the system updates the asset status to "Returned" and triggers the approval process. The system sends an email notification to the approver.

Input: Asset return template (format: Excel, CSV, etc.), containing fields such as asset number, current user/department, reason for return, etc.

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record.

1.6 Asset Disposal Function

Function Number: FR-06

Description: Users can fill in the disposal information through the asset disposal template and submit a disposal application. After verifying the user's permissions and the completeness of the template, the system updates the asset status to "Disposed" and triggers the approval process. The system sends an email notification to the approver.

Input: Asset disposal template (format: Excel, CSV, etc.), containing fields such as asset number, reason for disposal, disposal date, etc.

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record.

1.7 User Registration Function

Function Number: FR-07

Description: Users can fill in personal information through the user registration template and submit a registration request. After verifying the format of the information, the system checks whether an approval process needs to be triggered. If so, the system submits the registration request to the approver and sends an email notification.

Input: User registration template (format: Excel, CSV, etc.), containing fields such as username, password, email, department, etc.

Output: New user record in the user data entity, approval process trigger record, approver email notification record.

1.8 User Login Function

Function Number: FR-08

Description: Users can enter their username and password on the login interface. After verifying the authentication information, the system loads the user's permission configuration and records the login log.

Input: Username, password.

Output: Login success status, user's permission configuration information, login operation log.

1.9 User Permission Allocation Function

Function Number: FR-09

Description: System administrators can select target users on the user permission allocation interface and assign or revoke permissions for them. After verifying the administrator's permissions, the system updates the permission data entity and triggers the approval process (if required). The system sends an email notification to the approver.

Input: Target user number, permission number, permission operation (assign/revoke).

Output: Updated user permission record in the permission data entity, approval process trigger record, approver email notification record.

1.10 User Information Modification Function

Function Number: FR-10

Description: Users can fill in the fields to be modified on the user information modification interface. After verifying the user's permissions, the system updates the user data entity. If modifying key information requires approval, the system will trigger the approval process and send an email notification.

Input: User number, fields to be modified (such as password, email, department, etc.).

Output: Updated user information record in the user data entity, approval process trigger record, approver email notification record.

1.11 Approval Process Configuration Function

Function Number: FR-11

Description: System administrators can select the functional modules that need approval process configuration on the approval process configuration interface and set the approval steps, approver roles, approval order, trigger conditions, etc. After verifying the administrator's permissions, the system saves the approval process configuration information and associates it with email notification settings.

Input: Functional module name, approval steps, approver roles, approval order, trigger conditions, email template, notification recipients.

Output: Updated approval process record in the approval process data entity, approval process status, email notification settings information.

1.12 Approval Process Management Function

Function Number: FR-12

Description: System administrators can select a specific approval process on the approval process management interface for viewing, modifying, deactivating, or activating. After verifying the administrator's permissions, the system updates the approval process data entity and records the approval process management operation log.

Input: Approval process number, operation type (view/modify/deactivate/activate), approval process configuration information.

Output: Updated approval process record in the approval process data entity, approval process management operation log.

1.13 Approval Process Query Function

Function Number: FR-13

Description: Users can enter conditions such as approval process number, name, status, associated asset number, and approver on the approval process query interface to search for approval process information. After verifying the user's permissions, the system returns a list of approval processes that meet the conditions and records the query operation log.

Input: Approval process query conditions (such as process number, name, status, associated asset number, approver, etc.).

Output: List of approval processes that meet the conditions, approval process query operation log.

1.14 Report Generation Function

Function Number: FR-14

Description: Users can select a report template and fill in query conditions on the report generation interface. After verifying permissions, the system retrieves the asset data entity, fills in the data according to the template, and generates a report file for users to download or print.

Input: Report template number, query conditions (such as time range, asset type, status, etc.).

Output: Report file (such as Excel, PDF, etc.), report generation operation log.

1.15 Report Export Function

Function Number: FR-15

Description: Users can select a report template and fill in query conditions on the report export interface. After verifying permissions, the system retrieves the asset data entity, fills in the template data, and exports it as a file in the specified format. If sensitive data is involved, the system will trigger the approval process and send an email notification.

Input: Report template number, query conditions (such as time range, asset type, status, etc.), export format (such as Excel, PDF, etc.).

Output: Report export file, approval process trigger record, approver email notification record, export operation log.

1.16 Permission Setting Function

Function Number: FR-16

Description: System administrators can select a specific user on the permission setting interface and assign, modify, or revoke permissions for them. After verifying the administrator's permissions, the system updates the permission data entity and triggers the approval process (if required). The system sends an email notification to the approver.

Input: Target user number, permission number, permission operation (assign/modify/revoke).

Output: Updated permission record in the permission data entity, approval process trigger record, approver email notification record.

1.17 Permission Query Function

Function Number: FR-17

Description: Users can enter conditions such as user name, permission type, and status on the permission query interface to search for permissions. After verifying the user's permissions, the system returns a list of permissions that meet the conditions and records the query operation log.

Input: Permission query conditions (such as user name, permission type, status, etc.).

Output: List of permissions that meet the conditions, permission query operation log.

1.18 Authentication Information Management Function

Function Number: FR-18

Description: Users can modify their own authentication information (such as password, authentication method, etc.) on the authentication information management interface. After verifying the user's permissions, the system updates the authentication information data entity and triggers the approval process (if required). The system sends an email notification to the approver.

Input: User number, authentication information to be modified (such as password, authentication method, etc.).

Output: Updated authentication information record in the authentication information data entity, approval process trigger record, approver email notification record.

1.19 Email Notification Configuration Function

Function Number: FR-19

Description: System administrators can configure email templates and recipient information on the email notification configuration interface. After verifying the administrator's permissions, the system updates the email notification data entity and allows testing of email sending functionality.

Input: Email notification type, email template content (subject, body, variables, etc.), email recipient information (such as email address, user number, etc.).

Output: Updated email template and recipient configuration records in the email notification data entity, test email sending status.

1.20 Data Import Function

Function Number: FR-20

Description: Users can upload asset data files that meet the format requirements through the data import interface. After verifying the user's permissions, the system parses the file and checks the data integrity, updates the asset data entity, and triggers the approval process (if required). The system sends an email notification to the approver.

Input: Data import template (format: Excel, CSV, etc.), containing fields such as asset number, name, type, description, location, status, purchase date, purchase cost, etc.

Output: Updated asset record in the asset data entity, approval process trigger record, approver email notification record, data import operation log.

1.21 Data Export Function

Function Number: FR-21

Description: Users can select the export template and export format on the data export interface. After verifying the user's permissions, the system retrieves the asset data entity, fills in the template data, and exports it as a file in the specified format. If sensitive data is involved, the system will trigger the approval process and send an email notification.

Input: Data export template number, query conditions (such as time range, asset type, status, etc.), export format (such as Excel, PDF, etc.).

Output: Data export file, approval process trigger record, approver email notification record, export operation log.

1.22 Template Download Function

Function Number: FR-22

Description: Users can select the data import and export templates they need to download on the template download interface. After verifying the user's permissions, the system generates a download link and sends the template file.

Input: Template number or template name.

Output: Template file download link, template file content, template download operation log.

1.23 Email Template Management Function

Function Number: FR-23

Description: System administrators can view, edit, delete, or add new email templates on the email template management interface. After verifying the administrator's permissions, the system updates the email template data entity and records the email template management operation log.

Input: Email template number, operation type (view/edit/delete/add), template content (subject, body, variables, etc.).

Output: Updated email template record in the email template data entity, email template management operation log.

1.24 Approval Record Management Function

Function Number: FR-24

Description: System administrators or users can view, modify, or delete approval records on the approval record management interface. After verifying the operator's permissions, the system updates the approval record data entity and records the approval record management operation log. If sensitive approval records are involved, the system will trigger the approval process and send an email notification.

Input: Approval record number, operation type (view/modify/delete), detailed information of the approval record (such as approval status, approver, approval time, etc.).

Output: Updated approval record in the approval record data entity, approval process trigger record, approver email notification record, approval record management operation log.

1.25 Viewing Approval Records Function

Function Number: FR-25

Description: Users can enter conditions such as approval number, approval type, and approval status on the approval record query interface to search for approval records. After verifying the user's permissions, the system returns a list of approval records that meet the conditions and records the query operation log.

Input: Approval record query conditions (such as approval number, approval type, approval status, time range, approver, etc.).

Output: List of approval records that meet the conditions, approval record query operation log.

1.26 Viewing Asset Change Records Function

Function Number: FR-26

Description: Users can enter conditions such as asset number, change type, and time range on the asset change record query interface to search for asset change records. After verifying the user's permissions, the system returns a list of asset change records that meet the conditions and records the query operation log.

Input: Asset change record query conditions (such as asset number, change type, time range, operator, etc.).

Output: List of asset change records that meet the conditions, asset change record query operation log.

1.27 Asset Record Management Function

Function Number: FR-27

Description: Users can view all registered asset information on the asset record management interface. The system displays the corresponding asset data based on the user's permissions, supporting pagination, sorting, and filtering functions. In addition, users can also export the current asset list as an Excel or CSV file format for offline analysis.

Input: Pagination parameters (page number, number of entries per page), sorting field and order, filtering conditions (such as asset type, status, etc.).

Output: List of assets that meet the conditions on the current page, exported asset list file (if the user chooses to export).

1.28 Viewing Asset Records Function

Function Number: FR-28

Description: Allows users to quickly locate and browse the detailed information of a single asset through specific identifiers (such as asset number) or combined query conditions. This function also provides an overview mode, displaying a summary report of operations such as additions, modifications, transfers, and disposals within the selected time period.

Input: Unique asset identifier (e.g., asset ID), query time range (optional).

Output: Complete details page link/direct display of the queried asset, including but not limited to basic information, historical change records; asset change summary report for the specified period.

1.29 Administrator Login Function

Function Number: FR-29

Description: Administrators can enter their username and password on the login interface. After verifying the authentication information, the system loads the administrator's permission configuration and records the login log. To enhance security, the system also supports two-factor authentication (such as SMS verification code or authenticator) to ensure the administrator's identity.

Input: Username, password, two-factor verification code (optional).

Output: Login success status, administrator's permission configuration information, login operation log.