# Functional Requirement

### 1.1 Asset Registration Function

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

\*\*Description:\*\* Users can register new asset information through the system. The system will verify user permissions, store the asset information, and trigger the approval process.

\*\*Input:\*\*

- User authentication information (username, password)

- Asset information form (name, category, quantity, location, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Asset information stored in the database

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.2 Asset Usage Application Function

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

\*\*Description:\*\* Users can apply to use registered assets. The system will verify user permissions, check asset availability, and trigger the approval process.

\*\*Input:\*\*

- User authentication information (username, password)

- Asset usage application form (asset number, reason for application, usage period, user, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Asset usage application information stored in the database

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.3 Asset Approval Function

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

\*\*Description:\*\* Approvers can approve operations such as asset registration and usage applications. The system will record the approval results and notify relevant personnel.

\*\*Input:\*\*

- Approver authentication information (username, password)

- Pending approval asset information or asset usage application information

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Updated asset approval status

- Email notification sending status

- Approver feedback information (success or failure)

### 1.4 Asset Transfer Function

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

\*\*Description:\*\* Users can apply to transfer registered assets. The system will verify user permissions, check asset availability, and trigger the approval process.

\*\*Input:\*\*

- User authentication information (username, password)

- Asset transfer form (asset number, original user, target user, reason for transfer, transfer date, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Asset transfer information stored in the database

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.5 Asset Return Function

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

\*\*Description:\*\* Users can apply to return used assets. The system will verify user permissions, check asset status, and trigger the approval process.

\*\*Input:\*\*

- User authentication information (username, password)

- Asset return form (asset number, returner, reason for return, return date, return status, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Updated asset status

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.6 Generate Asset Report Function

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

\*\*Description:\*\* Users can generate reports related to assets. The system will generate reports based on the selected report type and filtering criteria.

\*\*Input:\*\*

- User authentication information (username, password)

- Report generation options (report type, filtering criteria, etc.)

- Report generation rules configured by the system administrator

\*\*Output:\*\*

- Generated asset report (format: PDF, Excel, Word, etc.)

- User feedback information (success or failure)

### 1.7 Permission Allocation Function

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

\*\*Description:\*\* System administrators can allocate permissions to users. The system will record permission allocation information and update user permissions.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Permission allocation form (target user, permissions to be allocated, etc.)

- Permission management rules configured by the system administrator

\*\*Output:\*\*

- Updated user permission information

- System administrator feedback information (success or failure)

### 1.8 Manage Permissions Function

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

\*\*Description:\*\* System administrators can manage permission configurations, including adding, deleting, and modifying permissions.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Permission management form (permission name, description, assigned to which users or roles, etc.)

- Permission management rules configured by the system administrator

\*\*Output:\*\*

- Updated permission configuration information

- System administrator feedback information (success or failure)

### 1.9 Authentication Information Verification Function

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

\*\*Description:\*\* The system will verify the user's input authentication information to ensure that the user has the right to access the system or perform related operations.

\*\*Input:\*\*

- User input authentication information (username, password, verification code, etc.)

- Authentication information verification process configured by the system administrator

\*\*Output:\*\*

- User authentication status (success or failure)

- User feedback information (success or failure)

### 1.10 Send Email Notification Function

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

\*\*Description:\*\* The system will send email notifications when specific events occur to ensure that relevant personnel are promptly informed of the system status.

\*\*Input:\*\*

- Event triggering email notification (such as asset registration, usage application, approval results, etc.)

- Email notification function configured by the system administrator

- Target user's email address

\*\*Output:\*\*

- Email sending status (success or failure)

- Operation log record

### 1.11 Data Import Function

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

\*\*Description:\*\* Users can upload files containing asset data. The system will parse the file content and import it into the database.

\*\*Input:\*\*

- User authentication information (username, password)

- Data file (format: Excel, CSV, etc.)

- Data import function configured by the system administrator

\*\*Output:\*\*

- Asset information stored in the database

- User feedback information (success or failure)

### 1.12 Data Export Function

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

\*\*Description:\*\* Users can export asset data from the system. The system will generate a file in the specified format for users to download.

\*\*Input:\*\*

- User authentication information (username, password)

- Data export options (data type, filtering criteria, export format, etc.)

- Data export function configured by the system administrator

\*\*Output:\*\*

- Generated export file (format: Excel, CSV, PDF, etc.)

- User feedback information (success or failure)

### 1.13 View Approval Process Function

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

\*\*Description:\*\* Users can view the configured approval processes and their status in the system. The system will display detailed approval information.

\*\*Input:\*\*

- User authentication information (username, password)

- Approval process configured by the system administrator

\*\*Output:\*\*

- List of approval processes and their detailed information

- User feedback information (success or failure)

### 1.14 Manage Approval Process Function

\*\*Function Number: FR-14\*\*

\*\*Description:\*\* System administrators can manage approval process configurations, including creating, modifying, and deleting approval processes.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Approval process configuration form (process name, approval steps, approvers, approval order, approval conditions, etc.)

- Approval process management rules configured by the system administrator

\*\*Output:\*\*

- Updated approval process configuration information

- System administrator feedback information (success or failure)

### 1.15 Delete Asset Record Function

\*\*Function Number: FR-15\*\*

\*\*Description:\*\* Users can delete registered asset records. The system will verify user permissions and update asset information.

\*\*Input:\*\*

- User authentication information (username, password)

- Asset record to be deleted

- Delete function configured by the system administrator

\*\*Output:\*\*

- Updated asset information

- User feedback information (success or failure)

### 1.16 Modify Asset Information Function

\*\*Function Number: FR-16\*\*

\*\*Description:\*\* Users can modify registered asset information. The system will verify user permissions and trigger the approval process.

\*\*Input:\*\*

- User authentication information (username, password)

- Modified asset information form (name, category, status, location, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Updated asset information

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.17 Query Asset Status Function

\*\*Function Number: FR-17\*\*

\*\*Description:\*\* Users can query the status information of assets. The system will display asset status based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (asset number, name, category, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Asset status information

- User feedback information (success or failure)

### 1.18 View User Information Function

\*\*Function Number: FR-18\*\*

\*\*Description:\*\* Users can view user information in the system. The system will display user information based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (username, user ID, role, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- User information

- User feedback information (success or failure)

### 1.19 Manage User Information Function

\*\*Function Number: FR-19\*\*

\*\*Description:\*\* System administrators can manage user information, including adding, modifying, and deleting users.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- User information form (username, password, role, contact information, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated user information

- System administrator feedback information (success or failure)

### 1.20 View System Administrator Information Function

\*\*Function Number: FR-20\*\*

\*\*Description:\*\* Users can view system administrator information in the system. The system will display administrator information based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (username, user ID, role, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- System administrator information

- User feedback information (success or failure)

### 1.21 Manage System Administrator Information Function

\*\*Function Number: FR-21\*\*

\*\*Description:\*\* System administrators can manage information of other system administrators, including adding, modifying, and deleting administrators.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- System administrator information form (username, password, role, contact information, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated system administrator information

- System administrator feedback information (success or failure)

### 1.22 View Permission Settings Function

\*\*Function Number: FR-22\*\*

\*\*Description:\*\* Users can view permission settings in the system. The system will display permission information based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (permission name, user or role, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Permission settings information

- User feedback information (success or failure)

### 1.23 Modify Permission Settings Function

\*\*Function Number: FR-23\*\*

\*\*Description:\*\* Users can modify permission settings in the system. The system will verify user permissions and update permission configurations.

\*\*Input:\*\*

- User authentication information (username, password)

- Permission settings form (permission name, permission scope, enabled or disabled status, etc.)

- Approval process configured by the system administrator

- Email notification function configuration

\*\*Output:\*\*

- Updated permission settings information

- Triggered approval process

- Email notification sending status

- User feedback information (success or failure)

### 1.24 View Authentication Information Function

\*\*Function Number: FR-24\*\*

\*\*Description:\*\* Users can view authentication information in the system. The system will display authentication information based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (username, user ID, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Authentication information

- User feedback information (success or failure)

### 1.25 Manage Authentication Information Function

\*\*Function Number: FR-25\*\*

\*\*Description:\*\* System administrators can manage authentication information in the system, including adding, modifying, and deleting authentication information.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Authentication information form (username, password, authentication method, validity period, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated authentication information

- System administrator feedback information (success or failure)

### 1.26 View Email Notification Record Function

\*\*Function Number: FR-26\*\*

\*\*Description:\*\* Users can view email notification records in the system. The system will display email notification records based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (recipient, send time, email subject, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Email notification records

- User feedback information (success or failure)

### 1.27 Manage Email Notification Settings Function

\*\*Function Number: FR-27\*\*

\*\*Description:\*\* System administrators can manage email notification settings in the system, including adding, modifying, and deleting email notification configurations.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Email notification settings form (notification type, recipient email, trigger conditions, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated email notification settings information

- System administrator feedback information (success or failure)

### 1.28 View Data Import and Export Record Function

\*\*Function Number: FR-28\*\*

\*\*Description:\*\* Users can view data import and export records in the system. The system will display record information based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (operation time, operation type, operation user, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Data import and export records

- User feedback information (success or failure)

### 1.29 Manage Data Import and Export Settings Function

\*\*Function Number: FR-29\*\*

\*\*Description:\*\* System administrators can manage data import and export settings in the system, including adding, modifying, and deleting import and export configurations.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Data import and export settings form (configuration file format, field mapping rules, data validation method, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated data import and export settings information

- System administrator feedback information (success or failure)

### 1.30 View Approval Record Function

\*\*Function Number: FR-30\*\*

\*\*Description:\*\* Users can view approval records in the system. The system will display approval records based on the query conditions entered by the user.

\*\*Input:\*\*

- User authentication information (username, password)

- Query conditions (approval time, approver, approval status, asset number, etc.)

- Query rules configured by the system administrator

\*\*Output:\*\*

- Approval records

- User feedback information (success or failure)

### 1.31 Manage Approval Record Function

\*\*Function Number: FR-31\*\*

\*\*Description:\*\* System administrators can manage approval records in the system, including modifying approval comments, deleting approval records, and exporting approval records.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Approval record management form (approval comments, delete record, export record, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated approval records

- System administrator feedback information (success or failure)

### 1.32 Report Analysis Function

\*\*Function Number: FR-32\*\*

\*\*Description:\*\* Users can analyze report data in the system. The system will generate analysis results based on the selected report type and analysis parameters.

\*\*Input:\*\*

- User authentication information (username, password)

- Report analysis options (report type, analysis parameters, etc.)

- Report analysis rules configured by the system administrator

\*\*Output:\*\*

- Report analysis results (charts, statistical information, etc.)

- User feedback information (success or failure)

### 1.33 Manage Report Function

\*\*Function Number: FR-33\*\*

\*\*Description:\*\* System administrators can manage report configurations in the system, including adding, modifying, and deleting reports.

\*\*Input:\*\*

- System administrator authentication information (username, password)

- Report configuration form (report name, template type, data source, generation frequency, permission control, etc.)

- Management rules configured by the system administrator

\*\*Output:\*\*

- Updated report configuration information

- System administrator feedback information (success or failure)