Requirement Analysis

Solution Requirement

Date	01 November 2025
Team ID	NM2025TMID05296
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

1. Functional Solution Requirements

1. **Dynamic Laptop Request Form**
   - Built in the **Service Catalog** using **Catalog Items**.
   - Includes mandatory fields: Employee Name, Department, Laptop Model, Purpose, Required Date.
   - Form behavior controlled through **UI Policies** and **Client Scripts**.
2. **Form Validation and Data Accuracy**
   - UI Policies ensure fields are visible, mandatory, or read-only based on user input.
   - Prevents submission of incomplete or incorrect forms.
3. **Automated Workflow**
   - Once submitted, the request moves to **ServiceNow Request Table (sc_request)**.
   - A **Workflow** or **Flow Designer** automation routes requests to the approver (manager).
   - Sends **email notifications** at each stage: submission, approval, and rejection.
4. **Approval and Assignment**
   - Manager receives automatic notification to approve or reject the request.
   - Approved requests are automatically assigned to the **IT Asset Team** for laptop allocation.
5. **Tracking and Status Updates**
   - Employees can track their request status (Pending, Approved, Rejected).
   - Admins can view and filter all requests through reports.
6. **Update Set Management**
   - All configurations (forms, policies, workflows) are stored in an **Update Set** for deployment.
   - Ensures consistency between development and production environments.

2. Technical Solution Requirements

1. **Platform Requirements**
   - ServiceNow Instance (Developer or Organizational Instance)
   - Access to:
     - Service Catalog
     - Flow Designer / Workflow Editor
     - Update Sets
     - Email Notifications
2. **System Integration**
   - Integrates with the **ServiceNow Approval Engine**.
   - Optional integration with **Active Directory** for user data.
3. **Data Storage**
   - Request details stored in **ServiceNow tables** (sc_request, sc_req_item).
   - History maintained for audit purposes.
4. **Security & Permissions**
   - Access controlled using ServiceNow **Roles**:
     - employee → Submit request
     - manager → Approve request
     - it_admin → View and deploy
5. **Performance**
   - Form submission and workflow execution should complete within 5 seconds.
   - Concurrent request handling supported.

3. Non-Functional Solution Requirements

Category	Description
Reliability	Ensures request data is not lost or duplicated during workflow transitions.
Scalability	Supports growth in number of requests and new catalog items (e.g., desktop request).
Usability	Simple, guided form with tooltips and clear instructions for users.
Security	Uses ServiceNow's built-in authentication and role-based access control (RBAC).
Maintainability	Easy modification of workflows or UI policies for future changes.
Availability	24/7 accessibility via ServiceNow portal or mobile app.

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│ 1. Functional Solution│          │ 2. Technical Solution │
│    Requirements       │          │    Requirements       │
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           │                                  │
           ▼                                  ▼
┌──────────────────────┐   ┌──────────────┐  ┌──────────────────────┐
│ Dynamic Laptop        │   │ ServiceNow   │  │ Automated Workflow    │
│ Request Form          │   │ Laptop Request│ └──────────┬───────────┘
└──────────┬───────────┘   │ Automation   │             │
           │                └──────┬───────┘             ▼
           ▼                       │          ┌──────────────────────┐
┌──────────────────────┐          ▼          │ Approval and          │
│ Form Validation       │   ┌──────────────┐ │ Assignment            │
│ and Data Accuracy     │   │ 3. Tracr+ing │ └──────────────────────┘
└──────────────────────┘   │    and Status│
                           │    Updates    │
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                           │ Update Set   │
                           │ Management   │
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1. Functional Solution Requirements

Dynamic Laptop Request Form

Form Validation and Data Accuracy

ServiceNow Laptop Request Automation

3. Tracr+ing and Status Updates

Update Set Management

2. Technical Solution Requirements

Automated Workflow

Approval and Assignment