Phase 3: Project Design Phase

Project Title: Laptop Request Catalogue Item

Platform: ServiceNow – SmartInternz Project

1. Introduction to the Project Design Phase

The Project Design Phase focuses on translating the plans and ideas developed earlier into actual visual structures, workflows, and configurations. In this stage, the goal is to design how the system will look and function — from the user interface (UI) to the backend process flow.

In the context of ServiceNow, design includes both form design (what users see when they request a laptop) and workflow design (what happens after submission). This ensures that the system not only looks appealing but also works efficiently, handling all business logic automatically.

Good design guarantees a balance between usability, performance, and scalability, all while maintaining a professional IT Service Management (ITSM) standard.

2. Objectives of the Design Phase

The main objectives of this phase are:

To design a user-friendly Service Catalog form for laptop requests.

To create a workflow diagram showing all approval and fulfillment steps.

To define data fields and their relationships.

To plan the user experience (UX) so that the process feels simple and intuitive.

To ensure the design adheres to ServiceNow best practices for catalog item creation.

3. ServiceNow Form Design (Front-End Design)

The form design is the first point of interaction for users requesting laptops. It needs to be simple, professional, and efficient.

Form Layout:

Field Name	Type	Description
Requester Name	Auto-populated	Displays the logged-in user's name
Department	Drop-down	Select the user's department (IT, HR, Finance, etc.)
Laptop Type	Choice field	Select from options like Standard, High-Performance, Developer Laptop
Purpose / Justification	Multi-line text	Explain why the laptop is needed
Delivery Location	Text	Enter the delivery address or department location
Manager Name	Reference	Select manager for approval
Required Date	Date	Choose when the laptop is needed
Additional Notes	Multi-line text	Optional field for extra details

UI Features:

Auto-populated user details to minimize errors.

Mandatory fields marked with "*".

Tooltips for guidance.

Clear "Submit" and "Cancel" buttons.

Category: Hardware Requests → Laptop Request under Service Catalog.

This design ensures the form remains simple, functional, and consistent with other IT catalog items in ServiceNow.

4. Workflow Design (Back-End Design)

The workflow determines the sequence of actions that take place once the user submits the form. In ServiceNow, this is usually implemented using Flow Designer or Workflow Editor.

Workflow Stages:

1. Request Submission:

Triggered when the user submits the catalog item form.

Request record is generated in the system.

2. Manager Approval Stage:

The request is automatically routed to the selected manager.

The manager can "Approve" or "Reject" the request.

Notifications are sent to both requester and manager.

3. IT Fulfillment Stage:

If approved, the request is sent to the IT Support Group.

IT assigns a laptop based on availability.

A task record is created for inventory management.

4. Request Closure:

After delivery, IT marks the task as completed.

Status automatically updates to "Closed."

A final email confirmation is sent to the requester.

Workflow Logic Diagram (Conceptual):

Start → Submit Form → Manager Approval → [Approved] → IT Fulfillment → Delivered → Closed

[Rejected] → Request Cancelled

Notifications Setup:

On Submission: "Your laptop request has been received."

On Approval/Rejection: "Your manager has approved/rejected your request."

On Fulfillment: "Your laptop request has been fulfilled."

On Closure: "Your request has been successfully closed."

These automated notifications improve transparency and communication at each step.

5. UI/UX Design Considerations

Designing the User Interface (UI) and User Experience (UX) plays a vital role in ensuring users can easily submit requests without confusion.

Design Principles Applied:

Simplicity: The form includes only essential fields.

Consistency: Follows ServiceNow's default theme and layout for familiarity.

Accessibility: Readable fonts and proper spacing for easy use on desktops and tablets.

Guidance: Helpful field labels and placeholders.

Error Handling: Validation prompts for required fields or incorrect inputs.

Example: When a user forgets to enter a "Delivery Location," the form will display a red warning message — "Please enter the delivery location before submission."

This user-focused approach reduces mistakes and ensures smoother interactions.

6. Data and Relationship Design

Behind the scenes, the catalog item interacts with ServiceNow tables to store and retrieve data efficiently.

Data Flow:

Request data → stored in sc_req_item table.

Approval data → stored in sys_approval_approver table.

Fulfillment task data → stored in sc_task table.

User information → fetched from sys_user table.

Relationships:

Each Request Item is linked to one Approval Record and one or more Task Records.

The Requester is linked through their sys_user ID.

The Manager is associated as the approver.

Proper data design ensures that all records are traceable and easy to audit.

7. Technical Design Components

Modules Used:

Service Catalog: For creating and publishing the catalog item.

Flow Designer: For automating the approval and fulfillment processes.

Notifications: For sending status updates.

User and Group Management: For assigning roles and responsibilities.

Access Control:

Only authenticated users can submit requests.

Managers can approve/reject requests.

IT staff can view assigned fulfillment tasks.

Admins have full configuration access.

8. Design Validation and Review

Before implementation, the design must be reviewed to ensure it meets both functional and business needs.

Design Review Checklist:

Are all required fields present on the form?

Does the workflow route correctly based on approval status?

Are notifications configured for every stage?

Does the catalog item fit under the correct category?

Are access permissions correctly assigned?

Once validated, the design moves into the development and configuration stage within ServiceNow.

9. Benefits of a Well-Structured Design

Efficiency: Streamlined process from submission to closure.

Accuracy: Correct data mapping reduces manual errors.

Automation: Minimizes manual approval handling.

User Satisfaction: Easy to use and track requests.

Scalability: Future requests (like "Monitor Request" or "Software Request") can reuse the same workflow pattern.

10. Conclusion of Project Design Phase

The Project Design Phase transformed the concept into a complete, structured design ready for implementation. It established the visual form layout, the backend workflow, and all related data structures necessary for automation.

This phase ensures that both user experience and system logic are aligned with organizational goals. With the design finalized, the project is ready to move into the Requirement Analysis Phase, where detailed technical and functional requirements will be formally defined before testing and deployment.