

## Performance Testing

Date	02 November 2025
Team ID	NM2025TMID01653
Project Name	Laptop Request Catalog Item
Maximum Marks	4 Marks

### Model Performance Testing:

1. **Test Objective:** Ensure the catalog item performs efficiently under normal and peak usage.
2. **Use ATF:** Automate form submissions, workflow triggers, and SLA validations.
3. **Simulate Load:** Use tools like JMeter or LoadRunner to mimic multiple concurrent users.
4. **Measure Response Time:** Track form load speed and workflow execution latency.
5. **Validate UI Behaviour:** Confirm dynamic fields and client scripts render correctly under stress.
6. **Monitor Logs:** Use system logs and performance analytics to detect bottlenecks.
7. **Test in Sub-Prod:** Always run tests in a non-production environment with realistic data.
8. **Document Results:** Record thresholds, issues, and optimization recommendations.

### Data preprocessing:

- **Validate required fields** to ensure completeness before submission.
- **Normalize input formats** (e.g., dates, phone numbers, asset tags).
- **Auto-fill user details** like manager, department, and location.
- **Apply conditional logic** to show/hide fields based on request type.
- **Sanitize inputs** using client scripts to prevent invalid characters.
- **Check for duplicates** to avoid multiple active requests per user.
- **Set default values** to guide users and reduce errors.
- **Tag metadata** (e.g., timestamp, user ID) for audit and governance.

### Flow Design:

- **User selects request type**, triggering dynamic form behavior via UI Policies.
- **Preprocessing validates and auto-fills data**, ensuring clean and complete input.
- **Workflow automation routes approvals** and tracks SLA compliance.
- **Fulfillment tasks are created and assigned** to IT teams for action.
- **Governance is enforced** through audit logs, role-based access, and update sets.
- **Testing and deployment ensure stability**, with UAT and performance monitoring.

## Screenshot:

The screenshot shows the ServiceNow interface for a 'Retrieved Update Set - laptop request project'. The 'Customer Updates (10)' tab is active, displaying a table of updates. The table has columns for Name, Type, Target name, Table, View, and Action. The first row is highlighted, showing a 'sys\_ui\_action' named 'sys\_ui\_action\_246bfb6837032107efa11d6fead3ee' with a target name of 'Reset Form' and a table of 'Shopping Cart [sc\_cart]'.

Name	Type	Target name	Table	View	Action
catalog_ui_policy_9a0a3336837032107efa11d6fead3e5	Catalog UI Policy	show accessories details			INSERT_OR_UPDATE
catalog_ui_policy_action_74aa3776837032107efa11d6fead342	Catalog UI Policy Action	accessories_details			INSERT_OR_UPDATE
item_option_new_46787f8e833032107efa11d6fead3ea	Variable	Additional Accessories			INSERT_OR_UPDATE
item_option_new_4b18333e833032107efa11d6fead34f	Variable	Justification			INSERT_OR_UPDATE
item_option_new_8f197bf833032107efa11d6fead3f0	Variable	Accessories Details			INSERT_OR_UPDATE
item_option_new_c197b37e833032107efa11d6fead3aa	Variable	Laptop Model			INSERT_OR_UPDATE
sc_cat_item_6196b3f833032107efa11d6fead371	Catalog Item	Laptop Request			INSERT_OR_UPDATE
sc_cat_item_catalog_c6577b3e833032107efa11d6fead3c0	Catalog Items Catalog	Service Catalog.Laptop Request			INSERT_OR_UPDATE
sc_cat_item_category_ca577b3e833032107efa11d6fead3c8	Catalog Item Category	Hardware.Laptop Request			INSERT_OR_UPDATE
sys_ui_action_246bfb6837032107efa11d6fead3ee	UI Action	Reset Form	Shopping Cart [sc_cart]		INSERT_OR_UPDATE

The screenshot shows the ServiceNow interface for a 'Customer Update - sys\_ui\_action\_246bfb6837032107efa11d6fead3ee'. The 'Name' field is highlighted. The 'Updated' date is 2025-10-29 00:16:13. The 'Created' date is 2025-10-29 00:16:13. The 'Created by' is admin. The 'Type' is UI Action. The 'Target name' is Reset Form. The 'View' is empty. The 'Payload' section shows a JSON payload for a record update. The 'Comments' field is empty. The 'Remote update set' is laptop request project. The 'Update set' field is empty.

Name: **sys\_ui\_action\_246bfb6837032107efa11d6fead3ee**

Updated: 2025-10-29 00:16:13

Created: 2025-10-29 00:16:13

Created by: admin

Type: UI Action

Target name: Reset Form

View:

Payload: 

```
<?xml version="1.0" encoding="UTF-8"?><record update sys_domain="global" table="sys_ui_action"><sys_ui_action action="INSERT_OR_UPDATE"><action_name>Reset Form</action_name><active>true</active><client>true</client><client_script_v2><![CDATA[function onClick(g_form) {
  // ...
}]]></client_script_v2><comments></condition><form_action>false</form_action><form_button>false</form_button><form_button_v2>false</form_button_v2><form_context_menu>false</form_context_menu><form_link>false</form_link><form_menu_button_v2>false</form_menu_button_v2><form_style>false</form_style><format_for_configurable_workspace>false</format_for_configurable_workspace><hint></isolate_script>true</isolate_script><list_action>false</list_action><list_banner_button>false</list_banner_button></sys_ui_action></record update>
```

Comments:

Remote update set: laptop request project

Update set:

## Result:

- Dynamic form on behaviour improves user experience with conditional fields and tooltips.
- Validated and preprocessed data ensures clean, complete, and standardized inputs.
- Automated approval workflows streamline routing and enforce SLA compliance.
- Fulfillment tasks are generated and tracked efficiently through RITMs.
- Governance is maintained via audit logs, role-based access, and update sets.
- Non-functional goals met: usability, performance, security, scalability, and availability.
- Tested and deployed using ATF, UAT, and performance monitoring for reliability.