

# Performance Testing

Performance Testing evaluates how effectively the ServiceNow platform handles system operations such as student requests, faculty services, incident management, and workflow automation under varying workloads.

## Objectives of Performance Testing

- To measure system response time.
- To verify system stability under multiple users.
- To ensure workflow execution efficiency.
- To evaluate scalability of ServiceNow services.
- To analyze database and server performance.

## Performance Testing Parameters

Parameter	Description
Response Time	Time taken to process service requests
System Throughput	Number of requests handled simultaneously
Load Handling	Ability to manage multiple users
Resource Utilization	CPU and memory usage
Workflow Execution Time	Time taken for approval workflows

## Test Scenarios

### 1. Student Service Request Handling

Students submit requests such as:

- ID card requests
- Course registration issues
- Infrastructure complaints

**Expected Result:**

Requests should be created instantly without delay.

## 2. Incident Management Performance

Faculty or students report IT-related issues through ServiceNow.

**Test Condition**

- Multiple incidents submitted simultaneously.

**Expected Result:**

System should automatically assign tickets without performance degradation.

## 3. Workflow Automation Testing

Approval workflows involving departments such as:

- Administration
- Examination Cell
- IT Department

**Expected Result:**

Automated routing and approvals should execute smoothly.

## 4. Concurrent User Load Testing

System tested with multiple users accessing:

- Service Portal
- Knowledge Base
- Request Management

**Expected Result:**

System performance remains stable without crashes.

## Performance Testing Results

Test Case	Expected Outcome	Actual Result
Multiple Student Requests	Fast response	Successful
Incident Ticket Creation	Immediate logging	Successful
Workflow Approval	Automated execution	Successful
High User Load	Stable performance	Successful

## Performance Observation

- Average request creation time: **< 2 seconds**
- No workflow delays observed.
- Platform maintained stability under heavy usage.
- ServiceNow cloud infrastructure ensured high availability.