

SOP Template: Problem Diagnosis and Troubleshooting Checklist

This SOP provides a comprehensive **problem diagnosis and troubleshooting checklist** designed to systematically identify, analyze, and resolve issues efficiently. It includes step-by-step procedures for initial problem identification, root cause analysis, testing and verification methods, documentation of findings, and implementation of corrective actions. The checklist ensures consistency, reduces downtime, improves problem-solving accuracy, and enhances overall system reliability by following a structured approach to troubleshooting.

1. Initial Problem Identification

- Record the date and time the issue was first reported.
- Identify and record the person reporting the issue (name, contact info).
- Document the affected systems, components, or services.
- Describe the problem in detail (symptoms, error messages, relevant screenshots, logs).
- Assign a priority level (critical, high, medium, low).

2. Problem Analysis & Data Collection

- Verify the reported symptoms and attempt to reproduce the issue.
- Gather system data and logs relevant to the incident.
- Check for recent changes (updates, config changes, deployments).
- Identify and review any recent related incidents or patterns.
- List tools and resources needed for troubleshooting.

3. Root Cause Analysis

- Break down the problem using techniques such as:
 - 5 Whys
 - Fishbone diagram
 - Cause & Effect Matrix
- Document possible causes and eliminate non-relevant factors.
- Identify the root cause and document supporting evidence.

4. Testing and Verification

- Develop and document a testing plan to validate the root cause.
- Perform corrective or investigative actions in a controlled environment if possible.
- Verify if the corrective action resolves the problem without causing other issues.
- Document test results and outcomes.

5. Implementation of Corrective Actions

- Outline the corrective actions to be implemented.
- Obtain necessary approval if required.
- Apply corrective actions to affected systems or components.
- Monitor system status post-implementation to confirm resolution.
- Communicate resolution to stakeholders and affected users.

6. Documentation and Reporting

- Document the issue, steps taken, and the final resolution in the incident record.
- Update knowledge base or SOPs if new information or procedures were discovered.
- Close the incident after successful resolution and confirmation from stakeholders.
- Archive logs, reports, and evidence used in the troubleshooting process.

7. Troubleshooting Checklist Summary Table

Step	Description	Completed (Y/N)	Responsible	Date
Initial Problem Identification	Describe and log the issue reported			
Analysis & Data Collection	Verify symptoms, collect data/logs			
Root Cause Analysis	Identify and document the root cause			
Testing and Verification	Validate the solution in a test environment			
Corrective Action	Implement and monitor corrective action			
Documentation & Reporting	Record findings, actions, and resolutions			

8. Sign-Off

Completed by: _____

Date: _____

Reviewed by: _____

Date: _____