**Test Plan**

**Revision History**

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| --- | --- | --- | --- |
| Date | Change Description | Author | Version |
|  | Initial Draft | Almar Matira | 1.0 |
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**Overview**

The company is experiencing rapid growth and is facing challenges in managing inventory with just the in-house system. To address this and accommodate the increasing number of transactions, the company decided to partner with multiple third-party logistics providers for warehousing and shipping.

**Scope**

The scope of this test plan will focus on validating the following key aspects:

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| Perform regression testing to ensure that critical functionalities are working after the integration. |
| Verifying changes to inventory are updated across 3PL warehouses and internal systems. |
| Ensuring that there are audit logs where adjustments can be traced to the customer service agent. |
| Testing the ability to make inventory adjustments using positive/negative integers. |
| Validating the correctness of the REST APIs used for communication between internal and 3PL systems. |
| Testing how the system handles invalid inputs (e.g., incorrect data). |
| Perform Database validation to ensure changes are updated and stored properly. |
| Verifying the system's ability to handle multiple adjustments, especially during peak periods. |

**Test Strategy**

**Manual Testing:**

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| Ensure that all the critical front-end inventory functionalities of both internal and 3PL are working properly, back-end validation needs to be performed in conjunction to the front-end scenarios. |

**Automated API Testing using Postman:**

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| Verify that the API endpoints return the correct responses for valid inputs. |
| Verify that the API returns appropriate error messages and status codes for invalid requests. |
| Verify that the API authentication is functioning correctly. |

**Automated Performance Testing using LoadRunner:**

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| Load Testing – Ensure that the integration between the internal system and the 3PL will be able to handle the expected amount of load. |
| Scalability Testing – We will run scaling test based on the current growth data; this will give the company an idea up to how much growth can we accommodate in the future. |
| Stress Testing – To see how the integration will behave during extreme conditions beyond it’s expected load capacity and how it will handle a failure event. |

**Bug Reports**

The tester is required to provide detailed reports of any issues encountered using "Team Foundation Server" and ensure proper connectivity to the "Integration" project.

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| **Name** | **Description** |
| Title | A clear and concise description of the issue allowing anyone reading it to quickly understand. |
| Status | New, Need More Info, Assigned, In-Development, In-Testing, Done, Removed, Closed |
| Severity | High, Medium, Low |
| Steps to Reproduce | Detailed steps to replicate the issue and to support the title. |
| Attachments | Anny associated files such as screenshots or logs. |

**Reference:**

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| **Title** | **Link** |
| Business Requirements Document |  |
| Non-Functional Requirements |  |
| Test Case Repository |  |
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