**Final Test Report**

In this project, we analyzed the project, created our test plan, created data structures, and defined the functions needed for the project. Firstly, we conducted black box unit tests with the functions created in the project’s header file then proceeded with the white box unit test after the functions were implemented. We found some bugs and fixed them, and we updated the black box and white box cases when an additional function or feature was added. Next, we analyzed, documented, and implemented the integration test cases which tested the combination of the functions implemented. After the integration test, we analyzed, documented, and implemented the acceptance test cases to verify the code is ready for production and meets with the requirements presented by the user.

**Test Report**

Summary of the entire test cases

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Function/acceptance/  requirement | Test Run | Bugs Fixed | Time Taken | Cost ($) | Passed |
| Blackbox: createPackage() | **TB001** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: createPackage() | **TB002** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: createPackage() | **TB003** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validatePackage() | **TB004** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validatePackage() | **TB005** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validatePackage() | **TB006** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validateTruck() | **TB007** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validateTruck() | **TB008** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: validateTruck() | **TB009** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: assignPackage() | **TB010** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: assignPackage() | **TB011** | **No bugs** | **5mins** | **0.00** |  |
| Blackbox: assignPackage() | **TB012** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW001** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW002** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW003** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW004** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW005** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW006** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW007** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validatePackage() | **TW008** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW009** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW010** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW011** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW012** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW013** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW014** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW015** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: validateTruck() | **TW016** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW017** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW018** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW019** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW020** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW021** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW022** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW023** | **No bugs** | **5mins** | **0.00** |  |
| Whitebox: assignPackage() | **TW024** | **Wrong Diversion Output** | **20mins** | **0.00** |  |
| Integration | **TC001** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC002** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC003** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC004** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC005** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC006** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC007** | **No bugs** | **8mins** | **0.00** |  |
| Integration | **TC008** | **No bugs** | **8mins** | **0.00** |  |
| Integration | **TC009** | **No bugs** | **8mins** | **0.00** |  |
| Integration | **TC010** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC011** | **No bugs** | **5mins** | **0.00** |  |
| Integration | **TC012** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA001** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA002** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA003** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA004** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA005** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA006** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA007** | **No bugs** | **5mins** | **0.00** |  |
| Acceptance | **TA008** | **No bugs** | **5mins** | **0.00** |  |

**Failed Tests**

Details of Test Cases Failed with their expected and actual results.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Test Case Id | Test Type | Test Name | Test Description | Test Input | Expected Results | Actual Results |
| TW024 | Whitebox | Invalid Truck (Package diversion) | Assigning a package to a truck that weighs more than 1000kg | 600 1.0 8Y  600 1.0 8Y | Ship on GREEN LINE, divert: 7T, 7U, 7V, 7W, 7X, 7Y, 8Y  Ship on BLUE LINE, divert 18V, 17V, 16V, 15V, 14V, 13V, 12V, 11V, 10V, 9V, 8V, 7V, 7W, 7X, 7Y, 8Y | Ship on GREEN LINE, divert: 9Z, 8Z, 8Y.  Ship on BLUE LINE, divert: 17Y, 16Z, 15Z, 14Z, 13Z, 12Z, 11Y, 10Y, 9Z, 8Z, 8Y |

**Costs**

The total amount spent on testing.

|  |  |
| --- | --- |
| Test Type | Time Taken |
| Black Box | $0.00 |
| White Box | $0.00 |
| Integration | $0.00 |
| Acceptance | $0.00 |
| Total | $0.00 |