**Testing Strategy Worksheet**

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| **Project Name**  Group 6 Truck Delivery Test | **Author**  Hansol Nam  Wai Bong Yung |
| **Computing Environment**  Visual Studio and VS code (windows, macOS) | **Software Type**  Text-based Program |
| **User Demographics**  End user | **Assumptions** Users will input package details including volume, weight, and destination parameters in a single submission. The application needs to use a strategy to determine the optimal delivery truck and generate its detour route and reply to users immediately. |
| **Purpose of Test**  To ensure the application correctly assigns packages to trucks based on capacity and finds optimal routes while handling potential obstacles and errors. | **Phases of Testing**  Requirements Analysis, Test Planning, Test case development, environment setup, test execution as unit and integration test. |
| **Scope of Testing**  What will be tested or not tested  Package assignment to trucks based on capacity.  Route optimization algorithm,  Handling of obstacles and error in route finding,  User interface (visualizing route and delivery),  Performance and load testing.  Security and stress level test won’t be tested | **Critical Success Factors**  All test cases pass without critical defects.  The application successfully assigns packages and optimizes routes. Users can navigate the application without encountering. |
| **Testing Types**  Unit Testing, Integration testing, functional testing, User Acceptance Testing (UAT), Regression Testing (as developed) | **Tester Profiles**  **Testers and developers ;**  **Team Lead: Chia-Yu Chien, team members : Hansol Nam, Wai Bong Young, Fang Lin** |
| **Development/ Test Tools**  Visual Studio, VS Code, Make, Jira for issue tracking and project management, GitHub for version control | |
| **Business / Operational Concerns**  Ensure reliable and efficient package delivery operations. Optimizing routes within shortest distance to destination. | |
| **Risks**  **Business**  Risks to business: Delayed delivery of program (missing deadline) could impact customer satisfaction.  Technical: Changes in project scope, resource constraints and insufficient test data could affect test results.  **Project**  Management of test cases and documentation has potential to lead to lost data and overlooked defects. | |
| **Other**  Any other notes | |