







**Version History**

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| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Change** | **Author** | **Reviewed by** |
| 1.0.0 | 2023-09-19 | Initial Version, Document creation, Formatted the document, Added Heading description, Feature to be tested. | Sheikh Md. Rezone Ullah | A.F.M.M. Abdul Qadir |
| 1.0.1 | 2023-09-22 | Testable feature and feature added, Custom Report, Feature not to be tested, Spelling Checked. | Sheikh Md. Rezone Ullah | A.F.M.M. Abdul Qadir |

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| --- | --- | --- | --- | --- |
| **Term** | **Abbreviation** | | | |
| DRIVER | Data for Road Incident Visualization, Evaluation, & Reporting. | | | |
| RCF | Road Crash Form. | | | |
| ARF | Accident Report Form. | | | |
| DMP | Dhaka Metropolitan Police | | | |
| JICA | Japan International Cooperation Agency | | | |
| UI | User Interface | | | |
| UX | User Experience | | | |
| API | Application Programming Interface | | | |
| TBD | To Be Defined | | | |
| QA | Quality Assurance | | | |
| RC | Requirement Change | | | |
| OS | Operating System | | | |

**Abbreviation List**

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# 1. Introduction

The Data for Road Incident Visualization, Evaluation, & Reporting [DRIVER] software is an efficient tool designed to streamline the collection, analysis, and reporting of road incident data.One of the major organizations in Dhaka city and a stakeholder in the collecting, analysis, and administration of data related to traffic crashes is the Dhaka Metropolitan Police (DMP). The DMP DRIVER software deployment and configuration are the main objectives of this project.

This test plan outlines the process of testing the functionality of DRIVER. The main purpose of this test plan is to ensure the overall Quality assurance plan, Test Procedure, Test strategy, Test schedule, Test acceptance criteria, Test Reporting, etc

# 2. References

The following documents are used as sources of information for this test plan:

| **Ref. No** | **Document Title** |
| --- | --- |
| 1 | [Technical Document for Deployment and Configuration of the DRIVER Software V 1.0.0](https://nextcloud.bjitgroup.com/index.php/s/oqNqYX9QS33Ec2b?dir=undefined&path=%2FManual_SQA_Project_Docs&openfile=2362907) |
| 2 | [A Brief User Manual of the DRIVER System V 1.0.1](https://nextcloud.bjitgroup.com/index.php/s/oqNqYX9QS33Ec2b?dir=undefined&path=%2FManual_SQA_Project_Docs&openfile=2362909) |
| 3 | [DRIVER\_Module list](https://nextcloud.bjitgroup.com/index.php/apps/onlyoffice/s/oqNqYX9QS33Ec2b?fileId=2362906) |
| 4 | [DRIVER\_RFP](https://nextcloud.bjitgroup.com/index.php/s/oqNqYX9QS33Ec2b?dir=undefined&path=%2FManual_SQA_Project_Docs&openfile=2362908) |
| 5 | [Project Estimation](https://docs.google.com/spreadsheets/d/15PdGWs5UU2eA9w175M8pO_FznnBw7B2m/edit#gid=1916801002) |

**Note:** The Project will be developed following a clone of Agile based methodology. Each Sprint duration will be 2 weeks. This test plan may also be changed according to the changes at any testing phase.

# 3. High-Level Test Objective



Our high-level objectives are to evaluate this product for potential feature additions, deploy new features, address issues, and do more maintenance. The ensuing test goals are described.

* Ensure that the **DRIVER** software functionality meets the requirements.
* Make sure the result conforms with the requirements.
* We can gain the trust of our customers by providing high-quality products.
* Ensure that it complies with the requirement definition by checking.
* Promoting trust and spreading information about the quality standard.

# 4. Test Strategy



## Strategy

To ensure the quality of the applications. testing will be conducted based on the following approaches:

* **System Testing Strategy:** System testing systematically evaluates the **Driver** software system's functionality, performance, and reliability through planned test cases, aiming to identify and rectify defects before deployment. It will ensure the system meets user requirements and functions as intended.
* **Functional Testing Strategies:** Functional testing strategies involve evaluating the software features to confirm they meet specified requirements and perform their intended functions effectively.
* **UI Testing Strategies:** UI testing strategies involve evaluating the visual and interactive aspects of the Driver software application to ensure it meets design and usability requirements.
* **Retest Strategies**: Retest strategies involve re-executing specific test cases that previously failed or encountered defects, aiming to confirm the issues have been resolved and ensuring the affected functionality now works correctly.

## Test Levels

Only the following test levels will be conducted to ensure the quality:

* **System Testing:** System testing assesses the entire software system to confirm it aligns with requirements, functions properly, and is ready for user acceptance testing and deployment, ensuring its reliability and performance.

## Test Types

Following types of testing will be conducted to ensure quality:

* **Functional Testing:** Functional tests will be carried out, encompassing both positive and negative scenarios. At this stage, the objective is to confirm that the target application aligns with its Scope Statement.
* **GUI Test:** This testing will cover the application's graphical user interface with the goal of ensuring flawless execution in compliance with the UI standards. The goal of GUI testing is to evaluate how well the user and the application interact. This entails assessing how the application handles user inputs as well as how text, images, buttons, menus, conversation boxes, icons, toolbars, and other elements are shown on screen.
* **Retest:** To determine whether the reported bugs have been addressed, retesting will be done. To guarantee the fix, the pertinent test cases will be run again.

# 5. Features to be Tested.



| **Phases** | **Sprint** | **Features** |
| --- | --- | --- |
| 1 | 1 | * Login Page * Partial UI/UX * Partial Dashboard * Complete UI/UX and Dashboard * My Account Information * Manage Duplicate Records. * Map * Record List * Add a record |
|
|
|
| **Note:** Test plan and execution may vary depending on the development progress and release. | | |

# 6. Features not to be Tested.



| **Phases** | **Feature** |
| --- | --- |
| 01 | **Android app/ mobile app:** The Driver system will not be available in mobile applications.  **Cyber Security:** Cyber Security testing will not tested in the Driver system  **Admin User:** Admin user testing will not be tested in the Driver system  **Pixel Perfection:** To compare the Figma design, we will use the Developer Tools in the browser to ensure pixel precision.  **Full Integration Testing:** The Driver system will not undergo full integration testing by CompanyName.  **Performance Testing**: Performance testing will not be performed in the Driver system.  **Full Regression Testing:** We might not cover the entire regression test because, after issue resolution, it takes a lot of time and resources.  **User Acceptance Testing:** The Driver system won't be subjected to acceptance testing by CompanyName. |
|
| 01 |
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# 7. Test Estimation

Testing effort may depend on several factors including.

* Quality of the Test basis
* Size of the product
* Complexity of the problem domain
* Requirements for documentation
* Time pressure
* Number of defects and the amount of rework required.
* Retesting testing

# 8. Release Procedure

Below are procedures that will be followed for the Release:

* Step-1: Requirement Analysis
* Step-2: Start Development and make an internal release for QA on Sprint first day
* Step-3: QA continue testing and report bug
* Step-4: Developer complete the rest of development and start fixing current sprint Bugs
* Step-5: Make a Final Release for current Sprint on Sprint closing day
* Step-6: QA Confirm last release bugs fixed in Final Release
* Step-7: QA make complete respective Sprint Testing Scope and record bugs
* Step-8: If they do not have any blocking issue and bug Severity is low, Application goes release otherwise release will not be done.
* Step-9: Remaining bugs will be fixed in the next Sprint release

# 9. Test Suspension Criteria

Testing will be suspended, and the QA team will reject the receivables upon the following criteria:

* During testing blocking issues are identified.
* Respective bug is not fixed in the dedicated release.
* Release without release note

**Note:** If any case will happen then QA has to raise the issue to respective stakeholders

# 10. Test Acceptance Criteria:

* Application UI should match per provided UI specification.
* The application does not have any blocking issues.
* Application has 85% Test case coverage.
* Applications have covered supported required browsers (Windows Chrome).

# 11. QA Task List and Testing Process



Below Tasks will be performed by the QA Team:

* Requirement analysis
* Identify Test areas.
* Test Case writing on identified test areas.
* Prepare a Test environment.
* Execute Test Cases
* Bug reporting/retest
* Deliver Test report.
* Perform Test closure activity.
* Daily morning meeting
* Spec grooming meeting

# 12. Test Environment



To prepare the test bed forthe project following is the requirement:

## Hardware Requirement:

* **PC (Widows)**

## Software Requirement:

* **Operating System**: Windows 10.
* **Google Docs**
* **Google Chrome**

## Network Requirement:

* + - **Internet connectivity to PC**

**Tools to be used:**

* + - **Test Case management**: Google Sheet
    - **Document management**: NextCloud
    - **Project management**: Redmine

Device oriented testing will be conducted as per the following plan:

| **Platform** | **Browser/OS** | **Device** | **Details** | **Comments** |
| --- | --- | --- | --- | --- |
| Windows 10 | Google Chrome | PC | Screen resolution: 1366\*768 |  |
| Chrome Version 117.0.5938.89 |

# 13. The schedule



Schedule will be updated as Sprint feature release:

| **Phase** | **Feature name** | **Req. Analysis** | **No of Test Items** | **Test Case Design** | **Internal QA Release** | **Final Release** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Login,  Black Spots by Severity, Incidents: Last Two Weeks map, Incidents: Last Two Weeks map graph (Matrix) for Incidents  Time of Day, Day of Week: Last 90 DaysGraph (Matrix) for Incidents  Saved Filters for map |  | 7 | 34 | 2023-09-25 | 2023-09-29 |
| Account Information,  Potential Duplicate Records, Filter Bar |  | 3 | 25 |
| Filter type, Control Layer Toggle, Zoom in & zoom out icon,  Zoom to, Draw a polygon, Draw a rectangle, Layer Edit, Layer Delete, Footer, Loss amount (In number). |  | 10 | 40 |
| Incident Location & Time, RCF (Road Crash Form), ARF (Accident Report Form). |  | 3 | 33 |

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# 14. QA Summary Report



From this report all stockholders can view and judge the current project Quality

| **Sprint** | **URL** |
| --- | --- |
| 1 | <https://drive.google.com/drive/folders/1jLr9cXMC_Pa9a9-2DtV95bLfxvLIwEml> |

# 15. Roles and Responsibilities



| **Resource Name** | **Responsibilities** |
| --- | --- |
| A.F.M.M. Abdul Qadir | Project Manager |
| NA | Business Analyst |
| Iftekhar Ahmed | General Manager |
| NA | Developer |
| Sheikh Md Rezone Ullah | Software Engineer QA |

# 16. Risk and Contingencies



**Schedule:**

* If SRS are not Cleared as per schedule, then we may not be able to meet the Testing deadline.
* If Releases for Testing are not provided as per schedule, then we may not be able to meet the deadline.
* Any changes to the requirements/scope could affect the test schedule Testing:
* Applications may have side effects due to implementation of new features and function enhancement and this may affect the functionality of existing features due to lack of proper testing time.

**Testing:**

* Lack of availability of required hardware, software, data or tools.
* Delays in training on the application and/or tools.
* Lack of personnel resources when testing is to begin.
* Changes to the original requirements or designs.
* Lack of availability of required hardware, software, data or tools

**Application Risk:**

* Applications may behave abnormally, and major functions may not work in non-supported devices/interfaces. Application may also not work expectedly in latest browsers for which application is not modified and tested.

# 17. Test Exit Criteria

The Testing process of the DRIVER application will be ended if the following criteria are met:

* All specified functions are functioning properly.
* Major bugs are identified, resolved, and retested.
* All test cases are executed and passed.
* Testing is ongoing but the PM requested to release the system.

# 18. Bug Status Explanation

We maintain the following status of the Bug in our Test Execution report:

**New:** SQA creates a new bug. Sets the Assignee to PM.

**Rejected:** If the reported bug is invalid, PM/TL changes the status to Rejected & Assignee to SQAE.

**Assigned:** PM/TL/SE changes the status to Assigned

**In Progress:** Assignee changes the status to InProgress when s/he starts working. Assignee records Spent Time every day.

**Submitted:** Assignee changes the status to Submitted when s/he finished the task & set the Assignee to PM/TL. Assignee Record Spent time.

**Feedback:** If the review isn’t successful PM/TL changes the status to Feedback & Assignee to SE.

**Reviewed:** Assignee reviews and changes the status to Reviewed and Assignee to SQAE

**Fixed but Failed:** Assignee (SQAE) retest and if not fixed then changes the status to Fixed but Failed and Assignee to PM/TL

**Resolved:** Assignee (SQAE) retest and if fixed then changes the status to Resolved and Assignee to PM/TL

**Close:** PM/TL (if assigned) will close the ticket if the review is successful and clarified the feedback

**Reopen:** PM/TL can set the closed task status to Reopen, if necessary.

# 19. Test Deliverables



Following are the deliverables from QA for the **DRIVER** project:

**Test Deliverables before Testing**

* Test Plan
* Test Cases

**Test Deliverables after Testing**

* Test execution report
* Test report (each sprint)
* Bug Report.

**Note:** Known issues need to be well mentioned in each Phase release note.

# 20. Test Plan Approvals

| **Name** | **Roles** | **Signature** | **Date** |
| --- | --- | --- | --- |
| A.F.M.M. Abdul Qadir | Project manager |  | 2023-09-19 |
| A.F.M.M. Abdul Qadir | Project manager |  | 2023-09-22 |

