**1 Introduction**

**1.1 Scope**

**1.1.1 In Scope**

All these features of the program which were defined in the software requirement specifications that need to be tested.

|  |  |  |
| --- | --- | --- |
| **Module Name** | **Applicable Roles** | **Description** |
| Trading Day Price List | User  System | **User:** Reports a 30 Trading Day Price List with the fields “date”, “open”, “close”, “high”, “low”, “volume”, “change”, “changePercent”, “changeOverTime”, “volumeChange”, “volumeChangePercent” and “volumeChangeOverTime”.  **System:** Should be able to search and retrieve the fields above from the database. The system should be able to sort them. |
| Prices | User  System | **User:** Reports max, min, average and mean price within the user given date range.  **System:** Should be able to search and retrieve the fields above from the database. It should also be able to calculate the prices dynamically to the user’s input. |
| Company Information | User  System | **User:** User should be able to obtain the company information for the selected stock.  **System:** Should be able to search and retrieve the information from the database. |
| Daily Data Update | System | **System:** Program should update its database daily, some stock data may not get updated or during the time the update is performed. |
| Team Feature 1  Statistical Graph | User  System | **User:** Should be able to interact with the graph modifying it.  **System:** Should adjust and draw graph according to user input. |
| Team Feature 2  API Using Flask/Python | System | **System:** Should create an API that allows for the front end to access. |

**1.1.2 Out of Scope**

These features are not tested as they are not included in the software requirement specifications:

* User Interface
* Hardware Interface
* Software Interface
* Website Security

**1.2 Quality Objective**

The test objectives are to verify the functionality of the program, the project should focus on testing the database search and retrieval to guarantee that these operations can work normally in daily use.

**1.3 Roles and Responsibilities**

|  |  |  |
| --- | --- | --- |
| **No.** | **Member** | **Tasks** |
| **1.** | Test Manager | Manages the whole project  Defines the project directions  Acquires appropriate resources |
| **2.** | Developer in Testing | Implements the test cases, test program, etc. |

**2 Test Methodology**

**2.1 Overview**

The testing methodology used in this project will be the Agile Method. This will allow for incremental testing, minimizing risk as well as allowing changes in order to comply with the requirements.

**2.2 Test Levels**

* Unit Testing
* Integration Testing / API Testing
* System testing
* Acceptance testing

**2.3 Bug Triage**

Bugs and any possible defects in the software should be dealt with appropriately prioritizing bugs that affect the performance or inhibit the performance of the processes required by the systems specification document as well as any of the features mentioned in Section 1.1.1.

**2.4 Suspension Criteria and Resumption Requirements**

Should any team members report that there are any test cases that failed, suspend testing until the development team fixes all the failed cases.

**2.5 Test Completeness**

* Specifies the criteria that denote a successful completion of a test phase
* Run rate must be 100% unless a clear reason is given.
* Pass rate is 100%, achieving the pass rate is mandatory.

**3 Test Deliverables**

Deliverables consist of program results from testing the database and the front end UI. Due to time constraints the testing programs are not 100% automated and does require some manual testing from the tester.

**4 Resource & Environment Needs**

**4.1 Testing Tools**

|  |  |  |
| --- | --- | --- |
| **No.** | **Resource** | **Description** |
| **1.** | Computer |  |
| **2.** | Server | Needed to host a Database server which is using a MySQL server Web Server. |
| **3.** | Test Tool | Develop a Test tool to help auto generate the test result to a predefined from and automate the testing process. |