

## WEC 2018

# TaskNow - Quality Assurance Plan

Yagnik Vadher Enes Yazici Kalvin Ramsaroop Karamveer Dhillon

## **Table of Contents:**

<b>Document Modification History</b>	
1. Software Testing Tools	4
2. Test Case Generation	4
3. Internal Deadlines	4
4. User Acceptance Testing	5
5. Unit and Integration Testing	5

## **Document Modification History**

Version	Date	Author	Modification
1	January 11, 2018	Karamveer, Kalvin	Added sections 1 through 5

#### 1. Software Testing Tools

The program was created using Visual Studio Code, a source code editor by Microsoft. This was also the main testing and debugging software, since most of our testing was done manually. We used the live server plugin for Visual Studio Code to test our app during development.

Additionally, we used Mozilla Firefox, Google Chrome, and Microsoft Edge to test our program to see if it worked well on these browsers. The browser console was used for debugging.

#### 2. Test Case Generation

Due to the time limitation, test cases will need to be generated by team members individually during development. In addition, we will use some of our meeting time to discuss

our test cases and generate more ideas. All ideas will be collected and saved in a google doc file for the testing phase.

#### 3. Internal Deadlines

The following table lists all the milestones in the project. These milestones are markers that must be met to ensure that the project is on track. The first milestone begins when the initial planning stage has been completed and the main development phase begins. The second milestone will be achieved after the first two hours of development. At this point we will be able allocate resources towards testing. The third milestones is the fourth group meeting. During this meeting, we will check our priority list and reassign tasks for the last 45 minutes. The final milestone will be near the end of the competition, once we stop all development, and focus on submitting our documents.

*Table 1: Table of Milestones* 

Milestone	Name	Start Time (Hour:Minutes)	Location
1	Begin Development	0:55	Hotel Room
2	Begin Testing/ Meeting 2	2:55	Hotel Room
3	Meeting 4	5:00	Hotel Room
4	Submission	5:45	Hotel Room

#### 4. User Acceptance Testing

Due to the time limitations, and the competition environment, we will not be able to conduct user acceptance testing.

#### 5. Unit and Integration Testing

After the initial development phase, we will begin incremental integration using github. This regression testing will consist of us merging components one by one, and testing to see if each merge is stable. This will be done for all components to ensure stability, and to make debugging and testing easier later on. Testing the integrated program will be done manually, and by using our developed test cases.

Basic unit testing will be conducted as soon as a component has been implemented. We will compare actual results to expected results and check boundary and corner cases. Each resulting component will need to be checked with the predetermined requirements in the requirement

#### 6. Size and Complexity

The program will need about X classes to implement. We estimate that each class will be on average 100 lines of code. Therefore, we expect that there will be X lines of code in our finished program.

According to our past experience and familiarity with the platforms used, we expect the finished executable file will be between 20 and 80 MB. We will use Visual Studio Code to measure lines of code, and a filemanager to measure executable size.

#### 7. Quality Management

Quality will need to be monitored during the length of the project. The testing phase will further polish the program code in order to ensure that there are no major bugs. Meetings will be the main way we can communicate issues and test each others work. We will also review work for consistency and coding standards.