Test Plan

The testing of the application should involve testing of all the functions written to implement the functionalities of the application – full coverage should be reached. There are two groups that can be distinguished – functionality and validation. Functionality test would prove the correctness of the functions for general usage. Validation tests would prove the validity of the data that is stored and displayed.

The following test cases should take place.

Functionality tests:

- Testing adding contact including UI addition and addition to the local storage.

- Testing that added contact has all required fields stored and displayed in UI.

- Testing deleting contact including UI deletion and deletion from the local storage.

- Testing search of the contact in the list – the entry is found in local storage and displayed in UI.

- Testing of the new browser window preserves already provided contacts. Confidence in data being not cleared from the storage.

Validation tests:

- Testing empty fields input – insurance that the input is not taken further and alert message is displayed in UI.

- Testing invalid phone number input. The numbers that are not in the correct format are not stored and the alert message is displayed.

There were some of these tests implemented including adding and deleting contacts and displaying in UI. As well empty fields test and number validation test. Visual Studio provides good basis for tests completion tracking. However, as well the log file is added, which is stored with the information obtained from the tests execution time. The path to the log file is this {sourceFolder}/bin/Debug/logs/{logFile}. These two tools can be used for tests analysis report, where the tests result, failures explanations would be presented.

Figure 1 Visual Studio Tests Tracking.

```
2021-06-29 20:21:07.9247 INFO Starting New Testing procedure.
2021-06-29 20:21:07.9535 INFO Launcing driver...
2021-06-29 20:21:10.7439 INFO Drvier is up.
2021-06-29 20:21:10.7579 INFO Test. Adding contact...
2021-06-29 20:21:11.4544 INFO Success. Test is Passed.
2021-06-29 20:21:12.4691 INFO Test. Adding contact...
2021-06-29 20:21:12.7074 INFO Contact is added
2021-06-29 20:21:12.7074 INFO Success. Test is Passed.
2021-06-29 20:21:13.7126 INFO Test. Deleting contact...
2021-06-29 20:21:13.8193 INFO Name is not present on the page.
2021-06-29 20:21:13.8272 INFO Phone is not present on the page.
2021-06-29 20:21:13.8272 INFO Success. Test is Passed.
2021-06-29 20:21:14.8415 INFO Test. Empty Fields
2021-06-29 20:21:14.9030 INFO The alert is displayed.
2021-06-29 20:21:14.9040 INFO Success. Test is Passed.
2021-06-29 20:21:15.9118 INFO Test. Wrong Phone Number
2021-06-29 20:21:15.9118 INFO Passing wrong number to the form
2021-06-29 20:21:16.1093 INFO The alert on wrong number is displayed.
2021-06-29 20:21:16.1093 INFO Success. Test is Passed.
2021-06-29 20:21:17.1153 INFO Testing procedure finished execution.
```

Figure 2 Log file