

Contact Manager Application

Test Plan

1. Introduction

This document outlines the test plan for the Contact Manager application. The plan was developed through analyzing the business and functionality of the application, outlining potential user stories, deriving detailed test scenarios, and conducting multiple rounds of testing to validate various aspects of the application’s performance and usability.

This test plan will focus on four main aspects:

- **UI Testing:** Evaluate the visual presentation and user experience of the application.
- **Functionality Testing:** Verify the correct behavior of all core features.
- **Data Validation Testing:** Ensure the accuracy and integrity of data within the application.
- **Usability Testing:** Evaluate the user-friendliness and intuitiveness of the system’s structure and interactions.

2. Test Cases

2.1 UI Testing

Test Case ID	Test Case Name	Description	Expected Result	Priority
UI-01	Layout Check	Check all elements are visible and correctly positioned	All elements are positioned correctly and consistently.	High
UI-02				High

Test Case ID	Test Case Name	Description	Expected Result	Priority
	Horizontal Window Resize	Check boundary conditions by dragging window horizontally	Elements should expand with widow responsively and some limits can't be exceeded	
UI-03	Vertical Window Resize	Check boundary conditions dragging the window vertically	Elements should resize with window and limit's can't be exceeded	High
UI-04	Scrollable Contacts table size	Check the behavior when are added and information exceeds table size	No shifts should occur and table should be scrollable	Medium
UI-05	Draggable Columns	Table columns can be manually adjusted	Table should be draggable to adjust column width	Low

2.2 Functionality Testing

Test Case ID	Test Case Name	Description	Expected Result	Priority
F-01	Add Contact - Valid Data	Add all contact information name, phone number and email	Contact is added into contacts table and input fields should be cleared	High
F-02	Add Contact - Empty Required Fields	Trying to add contact while name or phone number is empty	Error message is displayed. Contact is not added.	High
F-03	Add Contact - Existing Info	Trying to add a contact with existing information	Warning should occur that contact already exists. Contact is not added	High
F-04	Add Contact - With Empty Email	Adding a contact with only the required data name and phone number	Contact should be added and input fields should be cleared	High
F-05	Remove Contact - Single	Try selecting a row and removing the contact	Contact is successfully deleted from the table.	High

Test Case ID	Test Case Name	Description	Expected Result	Priority
F-06	Remove Contact - Multiple	Try selecting multiple rows and then delete	Contacts are successfully deleted from the table.	Medium
F-07	Remove All	Try clicking on remove all button to clear contacts table	Contacts table should be cleared after confirming	Medium

2.3 Data Validation Testing

Test Case ID	Test Case Name	Description	Expected Result	Priority
DV-01	Add Contact - Invalid Phone	Trying to add a contact with an invalid phone number containing letters or not starting with correct values (010 ex)	Error message is displayed. Contact is not added. (Assuming only Egyptian numbers)	High
DV-02	Add Contact - Invalid Email	Trying to add a contact with invalid email	Error Message is displayed. Contact is not added	High

Test Case ID	Test Case Name	Description	Expected Result	Priority
DV-03	Input Fields - Exceeding limit	Make sure that input fields does't exceed a certain number of characters	Error message is displayed. Contact is nor added.	Medium

2.4 Usability Testing

Test Case ID	Test Case Name	Description	Expected Result	Priority
US-01	Intuitive Interface	Make sure that all buttons, tables and fields are clear and visible	The interface is easy to understand and navigate	Medium
US-02	Checking error messages	Making sure that error messages are explaining clearly the issue	Well describing error messages	Medium
US-03	Removing with no row selection	Try clicking on remove with no rows selected	Warning message should occur	Low
US-04	Removing empty table	Try clicking on remove		Low

Test Case ID	Test Case Name	Description	Expected Result	Priority
		with no empty contacts table	Warning message should occur	
US-05	Confirming Before Remove All	Make sure that the user confirms removing all contacts	Clicking remove all should open a modal to confirm removing	Low

3. Test Environment

- **Operating System:** Windows 10
- **Software:** Qt 6.8.1 MinGW 64-bit ,Python 3.10, Squish

4. Conclusion

In conclusion, the outlined test plan not only ensures thorough validation of the application's functionality but also serves as an ongoing verification process. By integrating GitHub Actions, the test cases are automatically executed upon every commit pushed to the remote repository. This continuous testing approach helps maintain the application's reliability and ensures that new changes do not compromise existing functionality.