Testing document

## Testing Procedure – Graphical User Interfaces (GUI)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **What is being tested** | **How was it tested** | **Expected result** | **Actual result** |
| **Main menu** | | | | |
| 1 | The layout of the interface of the main menu | Compiled and execute the program | - Heading centered on top  - Six buttons grouped on the center  - Exit button on the bottom |  |
| 2 | ‘Add Agent’ Button | Clicked on Add Agent button | The “Add Agent” frame is displayed and the “Main Menu” is hidden |  |
| 3 | ‘Add Member’ Button | Clicked on Add Member button | The “Add Member” frame is displayed and the “Main Menu” is hidden |  |
| 4 | ‘Search’ Button | Clicked on Search button | The “Search Member” frame is displayed and the “Main Menu” is hidden |  |
| 5 | ‘Help’ Button | Clicked on Help button | Show Help document in pdf file |  |
| 6 | ‘Backup’ Button | Clicked on exit button | Save all data from database to binary file name ‘Members.bin’ |  |
| 7 | ‘Restore’ Button | Clicked on exit button | Read all data from binary file and store in ArrayList |  |
| 8 | The exit button shut down the program | Clicked on Exit button | The program exits |  |
| **Add Agent** | | | | |
| 9 | The value in agent id must be only numeric | Enter ‘ab’ into agent Id textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show ‘Please enter a number for Agent ID’ if enter letters |  |
| 10 | The value in the first name and last name field must be the only the letters | Enter ‘a1’ into first name textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show that the first name and last name must be only letter if enter a number |  |
| 11 | The value in the phone field must be numeric and at least 8 characters | Enter ‘xy’ into phone textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show that the phone number is invalid |  |
| 12 | The add button add sales agent details to database if the data is valid | Enter the valid data to all fields, and then clicked add button | Add sales agent details from textfields to database and show dialog box ‘Agent Record successfully added’. After that, all textfields will be cleared. |  |
| 13 | The clear button clear all data from textfield | Clicked on Clear button | All textfields in form were cleared |  |
| 14 | The main menu button go back to main menu page | Clicked on Main menu button | The Agent form frame was closed and go back to main menu |  |
| **Add Member** | | | | |
| 15 | The value in the first name and last name field must be the only the letters | Enter ‘a1’ into first name textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show that the first name and last name must be only letter if enter a number |  |
| 16 | The value in the email field must contain @ and . | Enter ‘aa’ into email textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show that the email is invalid |  |
| 17 | The value in the phone field must be numeric and at least 8 characters | Enter ‘xy’ into phone textfield and valid data in the rest of the form, and then clicked on Add button | A dialog box show that the phone number is invalid |  |
| 18 | Agent name from database was displayed in Combobox in agent name field | Select combobox to check if it show the agent name same as database | A combo box show all agent name from database |  |
| 19 | If type ‘Single’ was selected, the package field will be displayed | Select type ‘Single’ | The package field is displayed |  |
| 20 | If type ‘Family’ was selected, the no. of family member field will be displayed | Select type ‘Family’ | The no. of family member is displayed |  |
| 21 | The add button add member details to database if the data is valid | Enter all field with valid data and click add button | Add member details from textfields to database and show dialog box ‘Member record successfully added’. After that, all textfields will be cleared. |  |
| 22 | The clear button clear all data from textfield | Clicked on Clear button | All textfields in form were cleared |  |
| 23 | The main menu button go back to main menu page | Clicked on Main menu button | The Agent form frame was closed and go back to main menu |  |
| **Search Form** | | | | |
| 24 | ‘Search’ button show the data that have a same element with the textfield | Enter data to search | If there is the data in database, the table will show the data. If there is no that data in database, it will display dialog box ‘This member is not exist’ |  |
| 25 | ‘Update’ button show the update frame with the selected data from the table in search form | Select one member in the table and click on update button | The update frame was displayed with the selected member data |  |
| 26 | ‘Delete’ button delete the selected member | Select one member and click on ‘Delete’ button | The member will be deleted from the database and table will be refresh |  |
| 27 | ‘Back’ button go back to the main menu page | Select ‘Back’ button | The search form will be hided and display the main menu |  |
| **Update form** | | | | |
| 28 | ‘Update’ button will update the edited data in update form to database | Edit data in update form and click update | The member details in database will be update with the new data that entered in update form. |  |
| 27 | ‘Back’ button go back to the main menu page | Select ‘Back’ button | The search form will be hided and display the main menu |  |

## Testing Procedure – Input Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | What is being tested? | Test Data/How was it tested? | Expected Result | Actual Result | Description of unexpected result  (if applicable) |
| **Agent Details** | | | | | |
| Agent ID | Agent ID entered | Left blank | Report invalid value – ‘Please enter a number for agent ID’ | x | Cannot convert null to Integer. Enter try catch block and catch NumberFormatException to fix this error. |
|  | Agent ID | “AB” entered | Value rejected – ‘First name and Last name cannot contains only letters’ |  |  |
|  | Agent ID | “2” entered | Allow value |  |  |
|  |  |  |  |  |  |
| First Name | First name entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | First name | “Daniel35” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | First name | “Daniel;” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | First name | “Daniel” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Last Name | Last name entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Last name | “C1iff” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | Last name | “Cliff]” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | Last name | “Cliff” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Phone (10 number) | Phone entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Phone | “0412323222a” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “0412323222/” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “04213” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “0412323222” entered | Allow value |  |  |
| **Member Details** | | | | | |
| First Name | First name entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | First name | “Sam12” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | First name | “Sa[m” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | First name | “Sam” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Last Name | Last name entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Last name | “Smith12” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | Last name | “Sm[ith” entered | Value rejected – ‘First name and Last name can contains only letters’ |  |  |
|  | Last name | “Smith” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Email (Contain @ and .) | Email entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Email | “smith” entered | Value rejected – ‘Invalid email’ |  |  |
|  | Email | “smith12” entered | Value rejected – ‘Invalid email’ |  |  |
|  | Email | “@@” entered | Value rejected – ‘Invalid email’ |  |  |
|  | Email | “smith12@gmail.com entered | Allow value |  |  |
|  |  |  |  |  |  |
| Phone (10 number) | Phone entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Phone | “abc” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “02321232/” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “12345” entered | Value rejected – ‘Invalid phone number’ |  |  |
|  | Phone | “0412323239” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Gender | Gender selected | Did not select any radio button | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Gender | Select one radio button | Allow value |  |  |
|  |  |  |  |  |  |
| Type | Type selected | Did not select any radio button | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Type | Select one radio button | Allow value |  |  |
|  |  |  |  |  |  |
| Agent name | Agent name selected | Did not select any agent name from list | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Agent name | Select one agent name | Allow value |  |  |
|  |  |  |  |  |  |
| Package (If select type ‘Single’) | Package selected | Did not select any package from list | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | Package | Select one package | Allow value |  |  |
|  |  |  |  |  |  |
| No. of Family member | No. of Family member entered | Left blank | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | No. of Family member | “a” entered | Report invalid value – ‘Please complete all options on the form’ |  |  |
|  | No. of Family member | “1” entered | Report invalid value – ‘Number of family members must be more than 1’ |  |  |
|  | No. of Family member | “5” entered | Allow value |  |  |
|  |  |  |  |  |  |
| Note: All JTextFields in ‘Update form’ use the same functions to validate input as the ‘Add member’ form. | | | | | |
| **Search Form** | | | | | |
| Search data by all | Search data by all entered | Left blank | Dialog box display ‘Enter data to search’ |  |  |
|  | Search data by all | “Sam” entered | If ‘Sam’ is exist in any column, the member details will be show in the table, if not it will dialog box will display ‘this member is not exist’ |  |  |
|  | Search data by all | “1” entered | If ‘1’ is exist in any column, the member details will be show in the table |  |  |
|  |  |  |  |  |  |
| Search data by Member ID | Search data by Member ID entered | Left blank | Dialog box display ‘Enter data to search’ |  |  |
|  | Search data by Member ID | “Sam” entered | Dialog box display ‘Enter a number to search by Member ID’ |  |  |
|  | Search data by Member ID | “1” entered | If ‘1’ is exist in member id column, the member details will be show in the table |  |  |
|  |  |  |  |  |  |
| Search data by First name | Search data by First name entered | Left blank | Dialog box display ‘Enter data to search’ |  |  |
|  | Search data by First name | “Sam” entered | If ‘Sam’ is exist in any column, the member details will be show in the table, if not it will dialog box will display ‘this member is not exist’ |  |  |
|  | Search data by First name | “1” entered | If ‘1’ is exist in member id column, the member details will be show in the table |  |  |
|  |  |  |  |  |  |
| Search data by Agent ID | Search data by Agent ID entered | Left blank | Dialog box display ‘Enter data to search’ |  |  |
|  | Search data by Agent ID | “Sam” entered | Dialog box display ‘Enter a number to search by Agent ID’ |  |  |
|  | Search data by Agent ID | “1” entered | If ‘1’ is exist in agent id column, the member details will be show in the table. if it’s not, it will dialog box will display ‘this member is not exist’ |  |  |
|  |  |  |  |  |  |