

### Question 1

Open the project called Bookings\_p under the Q1 folder.

Make a front end design as given.

The screenshot shows a Windows-style application window titled "Flight Booking". The window has a standard title bar with minimize, maximize, and close buttons. The main content area is divided into several sections:

- Flight Selection:** A dropdown menu at the top left shows "A111" with a downward arrow. Below it is a small image of a blue airplane flying over clouds.
- Class Selection:** A list box on the top right contains three options: "First Class", "Business Class", and "Economi Class".
- Form Fields:** Below the flight image, there are three labels and corresponding input fields:
  - Passenger Name:** Labeled "Passenger Name", with an edit box containing the text "edtName".
  - Cost of Ticket:** Labeled "Cost of Ticket", with an edit box containing the text "edtCost".
  - Age:** Labeled "Age", with a spinner box showing the value "1".
- Action Buttons:** A large button labeled "Book Flight" is positioned to the right of the "Age" spinner.
- Output Area:** At the bottom, there is a large text area labeled "redOut" which is currently empty.
- Close Button:** A small button with a trash icon and the text "Close" is located at the bottom right corner of the window.

**1.1 Combo box:** change the name of the component as cmbFlightNo and add the flight numbers to combo box: A111, A112, A113, A114, A115 [2]

**1.2 List Box:** name it as listClass. The component must contain: First Class, Business Class, Economy Class [1]

**1.3 Edit boxes and Labels:** Add two edit boxes named edtName and edtCost. Place two labels accordingly in the form design. [2]

**1.4** Create two global variables called sName, rCost and their default values will be; **Jacklyn Smith** and **2500**.

Once the program runs initialize these values to edit boxes (edit boxes will have these variable values) and remove the text from rich edit output area. [5]

**1.5 Group box and spin edit:** Place a group box add a title called Age and add a spin edit inside the group box. The spin edit name must be changed as spinAge and it must contain values from 1-100. [3]

**1.6 Code the Book Flight button:**

Extract all the information entered from the components and display in the rich edit output.[7]

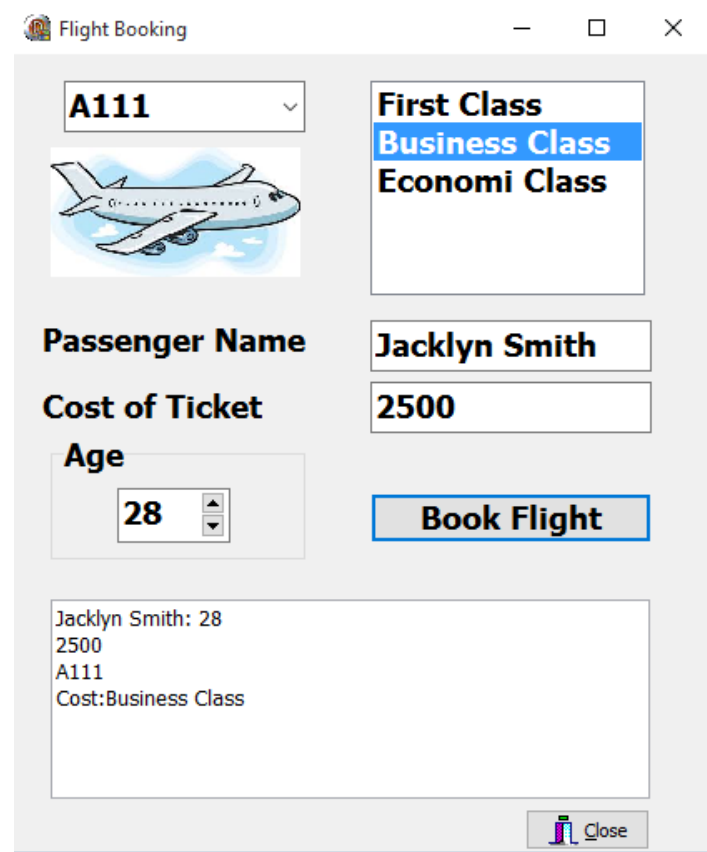
Note: Rich edit must be named redOut and font size must be 12.

**1.7 Place a close button as it shown on the form. [1]**

**1.8 Change the form title to Booking Flight.** Also font type and size for all components and texts will be Bold, 14. Except Rich edit output area. [2]

**1.9 General appearance of the GUI. [2]**

Sample output:



[25]

## Question 2

Use to open question2 folder and examine the GUI provided. Be sure to note the names used for the components on the tab. All output for this question must be displayed in memQ1

The program needs to retrieve the name of the customer and number of guests expected in order to give a basic quote.

[btnQuote]

**2.1** Write the code to retrieve the name and number of guests from the appropriate components. Display this information in the memo memQ1 as shown below.[7]

**2.2** Calculate the value of the quote where each adult is charged at R50 and each child at R35. Display the cost as shown. [5]

**2.3** Calculate the VAT at 14% and display as shown. Round all values to whole numbers using the Mathematical functions.[5]

NB: The **Round function rounds** a floating point Number to an Integer value. Example of using Round function: **iNum:=Round(rCurrency);**

**2.4** Display the total amount (Cost + VAT) as shown.[2]

**2.5** If the total number of guests is 10 or more, a 10% discount is applied to the final amount. Calculate and display the discount awarded as shown below, rounded to a whole number. Calculate and display the final price after discount.[6]

Example without discount

|                    |   |                             |
|--------------------|---|-----------------------------|
| Customer Name      | <input type="text" value="Jamie Naidoo"/> | Customer Name: Jamie Naidoo |
| Number of children | <input type="text" value="5"/>            | Number of Guests: 9         |
| Number of adults   | <input type="text" value="4"/>            | Cost: R375                  |
|                    |   | VAT: R52                    |
|                    |   | Total: R427                 |

Example with discount

|                    |   |                             |
|--------------------|---|-----------------------------|
| Customer Name      | <input type="text" value="Maxine Smith"/> | Customer Name: Maxine Smith |
| Number of children | <input type="text" value="8"/>            | Number of Guests: 13        |
| Number of adults   | <input type="text" value="5"/>            | Cost: R530                  |
|                    |   | VAT: R74                    |
|                    |   | Total: R604                 |
|                    |   | Discount: R60               |
|                    |   | Final : R544                |