HI-TECH ASSOCIATES
PROGRAM SPECIFICATION

PHONES without Search

Introduction
You are required to create software to enable the user to do the following:

- Display individual records
- Add a new record
- Delete a record
- Update a record (edit)
- Search records

Table
Create a table called ***tblPhones*** with the following fields:

Field Name	Data Type	Field Length	Notes
ProductCode	Text	6	Primary Key - Unique
Description	Text	30	
Price	Currency, 2 decimal places		
FreeInsurance	Logical (Yes/No)	1	

Task A
You are required to create software to access an external database with a single table via a database connection and a data form.

Using the IDE:

1. Create a ***data form*** that shows a single record and includes:

    - A label for the heading '**Phones**' in bold
    - **Four controls** and associated labels to display data from the record
    - **Controls** to move to the first, previous, next and last record
    - A **control** to hold a record count in the form *n* of *nn*
    - **Five buttons** for Update, Add, Delete, Search, and Exit
    - the data input controls receiving focus in an appropriate order

2. Make a connection to the database.

3. Ensure that when the form is loaded the dataset is loaded automatically and the data for the first record is displayed in the controls.

4. Write code for the following buttons

    Update

    You want to edit/change some information that is displayed.

Enter the new information into the field – e.g. change the Price from 50.00 to 60.00
Hit the button and the program will *write* the record *back* to the table.

Add

You want to add/insert/create a new record.
Enter the information into the fields.
Hit the button and the program will *write a new* record to the table.

Delete

You want to delete an existing record.
Hit the button and the program will *delete the existing record* from the table.

5. Write code for the controls to move to first, previous, next and last records.

6. Write code for the Exit button

   Exit

   You want to close/finish/exit the program.

7. Add a ToolTip control to the form

   This is a help message to the user when entering information.

8. Set the Tooltip property of the **ProductCode** and **Price** data entry controls to an appropriate text value.

   For Example:

   "Please enter the unique Product code"
   "Enter the Price of the phone"

9. Write code for the Search button to open a second form named frmSearch

   Search

   Opens a 2nd form, called **frmSearch**

10. This form displays ALL the records from the table.

11. Create a new form frmSearch to include

    - A DataGridView control to display the records
    - Two buttons named btnRun and btnClose with the text Run and Close
    - Make sure that the fields are formatted correctly *ie. Price displayed with 2 decimal places.*

12. Save the form as frmSearch

13. Set the Text property of the form to Task A Search ***your name*** and today's date

14. Write code in the Load function for the form to display the records.

15. Write code for the **Run** button
    When the user hits this button, the program should ONLY display products that have free insurance.

16. Write the code for the Close button
    When the user hits this button, the program should hide/close the form and return to the 1st form.

Task B

1. Create test data and expected results to test the Add, Update, Delete and Search buttons
   The expected result for the *Add button* is that you would be able to see the new record on the table.
   The expected result for the *Update button* is that you would be able to see the change that you made to a field(s) on the record.
   The expected result for the *Delete button* is that you would not be able to see the record on the table.
   The expected result for the *Search button* is that the 2nd form (frmSearch) would be displayed.

2. Create test data and expected results to test the Run button on the frmSearch form
   Example.
   The user wants to see all the phones where the price is less than 100.00 euro

   Your expected results would be that you ONLY want phones with a price less than 100.00euro displayed

3. Prepare a test plan
   A brief document to include:
   What are you testing – summary of the program
   Who is testing – names and responsibilities
   Methodology – how will you conduct the test, who will write the test scripts, what is the sequence of testing.
   Features to be tested – e.g. Add new record, Delete button.
   Schedule – when (how long/estimate) will the testing take place.
   Hardware & Software Requirements

4. Test the software

5. Log the test results – actual results compared to expected results
   A sample test log could include:

- Test (e.g. What are you testing for)
- Expected Result
- Actual Result
- Comment (Pass/Fail)

The assessor will look for evidence that you understand the concept of Expected Results.

6. Locate and run the EXE file.

7. Produce technical documentation to describe the connection details and the purpose of the software

8. Print a program listing and screen prints of the two forms