HI-TECH ASSOCIATES
PROGRAM SPECIFICATION

BANK

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 ***tblBank*** with the following fields:

Field Name	Data Type	Field Length	Notes
AccountCode	Text	6	Primary Key - Unique
Name	Text	50	
DateOpened	Date	dd/mm/yyyy	
Balance	Currency, 2 decimal places		
OnLineBanking	Logical (Yes/No)	1	
BIC	Text	8	See validation 1
IBAN	Text	14	See validation 2
AccountType	Text	7	See validation 3

Validation is optional
Validation 1
Position 1 and 2 must be alpha

Validation 2
Position 1 to 2 must be alpha
Position 3 to 4 must be numeric
Position 5 to 8 must be alpha
Position 9 to 14 must be numeric

Validation 3 – valid entries are
Current
Deposit
Loan

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 '**Bank**' in bold
    - **Eight** 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 Update, Add, Delete buttons

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

6. Write code for the Exit button

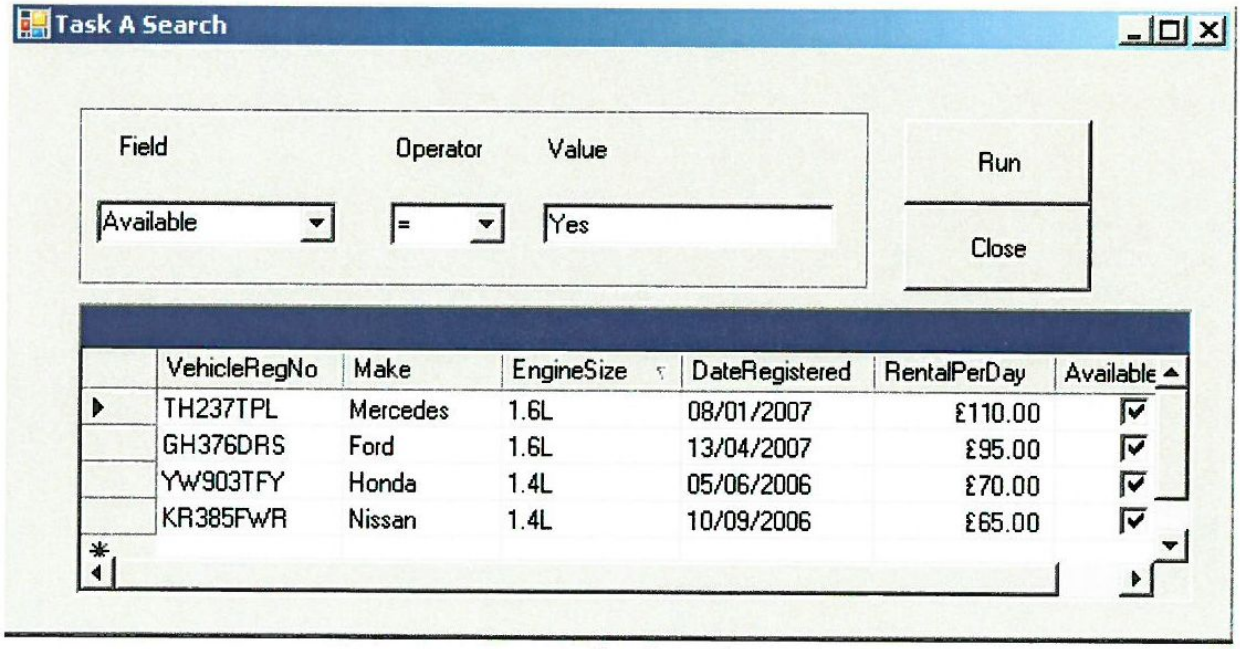
7. Add a ToolTip control to the form

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

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

10. This form allows the user to specify search criteria and display the matching records from the table.

**** This is an example of a Search form. ****
**** It is not the layout for this program – you must design your own form layout ****



frmSearch

11. Create a new form frmSearch to include
    - A group box to contain:
        - Two combo boxes named cboField and cboOperator with associated labels
        - A Text box for data entry with an associated label
        - A DataGridView control to display the results of the search
        - Two buttons named btnRun and btnClose with the text Run and Close
        - Make sure that the fields are formatted correctly

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
    - Populate cboField with the field names ***Balance, OnLineBanking and AccountType***
    - Populate cboOperator with the following operator symbols, each one as a single list item: =, <, >, <=, =>

15. Write code for the Run button that will match the search criteria entered using the combo boxes and the value in the data entry text box. All the fields in the table should be

displayed for **ALL** records that match the criteria. A criteria string that is not matched by any record **must** return nothing.

16. Write the code for the Close button to hide 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
2. Create test data and expected results to test the Run button on the frmSearch form
3. Prepare a test plan
4. Test the software
5. Log the test results – actual results compared to 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