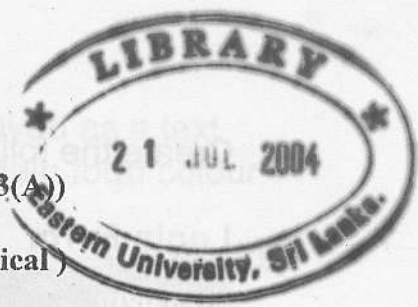


Eastern University, Sri Lanka
Third Examination in Science (2002/03&2002/03(A))
Second Semester (April/May, 2004)
OC 351 -Rapid Application Development (Practical)



Answer All Questions

Time - Three Hours

An "Institute of Computer Innovations (ICI)" institute wants to maintain computerized database to store their student and course details, A System Analyst has studied their system and he has selected Visual Basic as front end and Access Database as Back end.

You have been hired to perform this task and be asked to create the following database in MS Access and forms and the respective code in VB.

Create a database "Student.mdb" which contains two tables, **Student** and **Course**.

A student may take many courses and a course may be followed by many students

Student Table contains the following fields: StudentID, Last Name, First Name, Address, Date of Birth

Course Table contains the following fields:

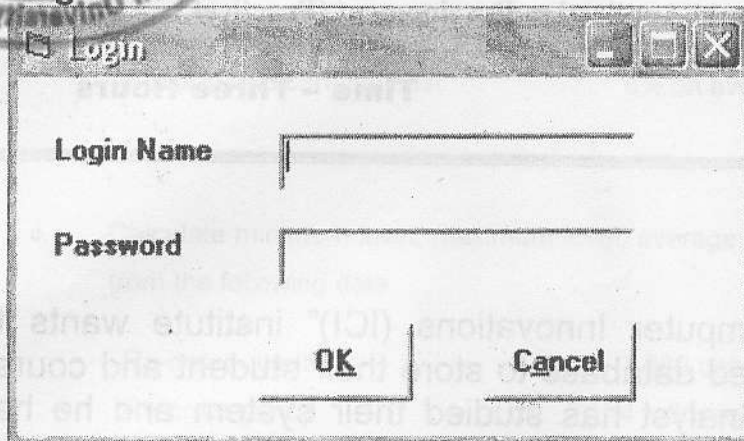
CourseID, CourseName, Duration, Credits, studentID.

Identify key fields and enter at-least five appropriate records in these tables.

(10 Marks)

Create the following forms and develop the respective programs.

Login Form



This form contains two command buttons, two labels and two text boxes.

It should perform the following tasks.

Initially "OK" button should be disabled. When user enters login name and password "OK" button should be enabled. It is assumed that the login name "ui" and password "sa" are the valid login name and password. If user enters either the login name or password incorrectly for 3 times, the application should be closed and display a message "You are not an authorized user".

If user enters correct login name and password as specified above and presses "OK" button the program should open an Input box and allow the user to enter user name and this user name should be displayed in the **Main form** which will be created next.

If user presses "Cancel" button application should be closed.

(25 Marks)

Main form

It should contain the following top-level menu "Data Entry", "Exit" and following sub-level menus for "Data Entry" menu item. They are "Student Data Entry" and "Student Courses". Selecting the menus should call the appropriate forms, which are explained below.

Username obtained from Input box must be displayed as a text box but actually it should be created as a label. Main form colour should change randomly in every two minutes.

(20 Marks)

Student Data Entry Form

It should contain the following Label, text boxes and command buttons with appropriate codes.

Command buttons

- "Move Next" - Allow the user to Move Next Record and check end of the record. Display appropriate error message.
- "Move Previous" - Allow the user to Move Previous Record and check beginning of the record. Display appropriate error message.
- "Add New" - All Textboxes should be cleared and allow the user to enter new record.
- "Save" - It should Save the records in the database, Check for duplicate data for the key fields and display appropriate error messages.
- "Edit" - Allowed the user to edit and Save the records
- "Delete" - Allowed the user to delete the records and move next record.

Text Boxes

These boxes should be used to enter student data such as StudentID, Last Name, First Name, Address, DateofBirth. In addition, it must have two text boxes one to display age from Date of birth field, and the other one to display full name from First name and Last Name field. User should not be allowed to modify these two text boxes.

Label

Labels must be displayed next to the text boxes with appropriate names.

(25 Marks)

Student Courses

It should contain the following Label, text boxes, command buttons and a grid(Ms Flex Grid/DB Grid) with appropriate codes.

Command buttons

- "Move Next" - Allow the user to Move Next Student Record so that all the courses offered by the selected student should be



displayed at the grid and check end of the record. Display appropriate error message.

"Move Previous" - Allow the user to Move Previous Student Record so that all the courses offered by the selected student should be displayed at the grid and check Beginning of the record. Display appropriate error message.

Text Boxes

It should display a StudentId , student Name

Grid(Ms Flex Grid/DB Grid)

Course details selected by that student.

Label

Labels must be displayed next to the text boxes with appropriate names.

(20 Marks)