

# WinForms Practical Assginment

No. 04

A school wants to automate their student manager process. The system will allow adding, updating and deleting students. The database schema is below:



Figure 1: Database Schema

The database script has been generated for you at :

## Perform the following functions for the application

1. Create Student Manager form which allows users to add, update and delete students information as below:

Mark  
[3]

Figure 3: Manage student Form





- When the form is loaded, display all available students to Student List combo box, and display all Languages to Available Listbox.
- When button New is clicked, the form's control should be cleared for new student information to be entered. Change the following visual interfaces

[2]

- combo Student List combo box is disabled
- Cursor is focused to Student Name field
- Button New's Text is changed to Cancel
- Button Update's Text is changed to Add
- Delete button is disabled








The form state after New button is clicked is shown below:

Figure 4: Manage Student Form (Add New state)

3.  When Cancel button is clicked return the form to initial state as in Figure 3 (1 points) [2]  
 When Exit button click Form, Show DialogBox to confirm Yes or No. If Yes is chosen Application will exit (1 points)
4.  When Add button is clicked, add the new student to Student table (only store File Path of the Image in picturebox). Ensure the following validations are performed: [4]
  - All fields are required, Age, Phone only accept numbers, Age range come from 18 -30, Use OpenFileDialog to select student picture, only accept the follwing extensions \*.bmp, \*.jpg, \*.gif (1 points)
  - Update student information (1 points)
  - Update Student Language List. (1 points)
  - Insert new Student into Combo box Student List (1 point)
5.  User can select a Student in the Student List combo box to view its [4]

details and update and delete it. Display appropriate Languages (2 points) and Picture for the selected student if ImagePath is not null(2 points).

Figure 5: Manage Student Form (Student Details)

6.  When Update button is clicked save the changes of selected student to Student table, implement the same data validations as in adding case (1.5 points) [4]
  -  Update Student Language List. (1.5 points)
  -  Update Combo box Student List (1 point)
7.  When Delete button is clicked delete the selected student information from Student table (1.5 points) [4]
  -  Delete Student Language (1.5 points). Display message denoting success or failure.
  -  Remove the deleted student item from Select student combo box (1 point)
8.  Use appropriate exception handling for the application [2]
- Total** [25]