

Vocational Training Development Institute

School of Applied Technology

ICT

Enterprise Application Development

Module No. 1-4

Assignment #1

Due:-

Total marks: 110,60,50,55

- **Date:** 18/4/2018
- **Time:** 8.00 pm

Lecturer: Ssyade Gayle

Working in groups of 4 to 5 persons, you are required to create a windows desktop application as well as a database driven website. Each group is required to get an approval from the instructor for the project that is chosen. The project will be broken down into four phases, one phase per module.

Each group is asked to submit the following:

- 1) A soft copy of the **Project Overview, phase overview, Form layouts, description of the functionality of each Windows Forms, Validation list applied on different forms (Module 1) ; description of Classes(Module 2) ; Web Form and Validation controls used(Module 3) and the Database Design (Module 4)** are required. Detailed requirements of each module will be given. This is worth 10% of the project grade for each module.
- 2) A softcopy of the desktop application (project files and installation files), Website and the database. There is no limit on the numbers of files to be created. The site should take into account readability, navigability and accessibility issues while conforming to the standards available. More details will be given in the module relating to the different phases of the application.
- 3) Each student should present his or her project work during the project presentations schedule. Attendance is compulsory. This is worth 5%.

Note:

Students who are currently pursuing the Software Engineering (CS226) should incorporate the requirements of that project to complete this assignment. In essence, you will be creating the system requirements and prototype for the Software Engineering project.

Module 1 Requirements – Windows forms

Overview

This phase will focus on the Windows Forms functionality of the system. You are required to design forms which will give users the ability to login and do practical things related to the project for example adding users with basic personal details and contact information and user roles among other specific functionality related to your project.

Specific requirements

A soft copy of the project overview, phase overview, Windows Forms Layout and a description of the functionality of each Windows Forms and layout is required. The project should use a Multiple Document Interface (MDI) form. You can hardcode the password for this phase. An appropriate message should be displayed to the user if login is unsuccessful. When a user successfully logs in, the information for the user that is logged in should be displayed at all times.

Appropriate textboxes should be used where necessary (masked textbox, password, multiline etc). At least one of each is required. Proper grouping of controls with grouping containers should be done on Forms. The use of the NotifyIcon component, AccessKeys, MessageBox, DatePicker or MonthCalendar, StatusStrip and a MenuStrip are required for this phase. From the MenuStrip, the user should be able to logout, exit the application as well as accessing other key areas of the application. Forms that should not have multiple instances running should be properly handled (i.e. if an instance is already running it should be brought to the top otherwise a new form should be loaded). This should be demonstrated at least once. The look and feel of the application will be highly marked in this phase.

MARKING SCHEME

Module 1

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Module 1	Total Marks	Assigned Marks
Soft Copy	11	
Form Design & functionality	11.5	
Proper name of the controls (no Button1 for example. You can use btn to begin the name of buttons (btnSave), txt to begin textboxes, lbl to begin labels etc).	5	
Variable names	4	
Setting the properties of different controls	7	
Use of control structures (loops, Ifs and Switch)	7	
Form validation	7	
Use of message box to display appropriate error messages	3	
Display of data with message box or another control	6	
MDI form	3	
Setting focus back to a particular control (.Focus())	4	
Clear controls on errors and demonstration of error handling	6	
Create menus	6	
Use of standard background image for forms	2	
Setting proper form titles	3	
Exit button on all forms	2	
Use of Notify Icon	4	
Access Keys	3	
DatePicker or Month Calendar use	3	
Status Strip use	3	
Multiline/masked textbox/password textbox use	2	
Handling of forms that should not have multiple instances	2	
Presentation	5.5	
Total Module 1 Score	110	

Module 2 Requirements – Object oriented concepts

Overview

This phase will focus on using classes, methods and properties. You are required to use built in methods, create user-defined methods, user-defined classes along with data-members to use in both the desktop and web solutions.

Specific requirements

A soft copy outlining the phase overview, description of the methods, classes, and properties used is required.

The use of built in methods is required in this phase of the project. The creation and usage of user-defined methods is also required.

You are required to create at least one class with various fields, methods and properties. Objects should be created and used to call methods and use properties. Consideration should be made for the web, and methods and or properties for classes that will be used on the web should also be included in this phase.

Marking Scheme

Module 2	Total Marks	Assigned Marks
Soft Copy	6	
Use of built in methods	4	
Class(es) creation and relevance	4	
Create fields in class(es)	4	
Create at least 3 non-static user defined methods that return a value	10	
At least 2 non-static user defined methods that does not return a value	6	
At least 1 static user defined method	3	
At least 1 overloaded method or overloaded constructor	2	
Create at least 2 properties in class(es)	4	
Create at least 1 read-only property	2	
Use of objects to call methods and use properties etc.	6	
Create methods and or properties in class(es) for Web	6	
Presentation	3	
Total Module Score	60	

Module 3 Requirements – Using ASP.NET

Overview

This phase will focus on designing and programming a web application using ASP.NET

Specific requirements

You are required to create a web application that contains web forms for the forms created in module 1 and module 2. It means you need to create a web version of the desktop application that you created in module 1 and 2.

MODULE 3		
Add server controls to the form	3	
Design and relevance of web forms	8	
Apply the following validations:		
<ul style="list-style-type: none"> • Required value • Compare validator • Range validator • Regular expression validator 	12	
Create a Master page to control the header, footer and layout of the website	5	
Create and incorporate a user control	12	
Apply session tracking	5	
Presentation	5	
TOTAL MODULE 3 SCORE	50	

Module 4 Requirements – Database programming using ADO.NET

Overview

This phase will focus on creating robust database applications using different classes in ADO model.

Specific requirements

You are required to apply database manipulations on the forms created in previous modules. All the forms designed must be database driven.

MODULE 4		
Database Structure	3	
Use of Primary key	1	
Input meaningful data in tables	4	
Add records into database	8	
Checking uniqueness of primary key using code	4	
Modify records in the database	10	
Delete records from the database	5	
Apply advanced search (Atleast two fields)	10	
Use Repeater/DataGrid view control to display records	10	
TOTAL MODULE 4 SCORE	55	