GANPAT UNIVERSITY
U. V. PATEL COLLEGE OF ENGINEERING
DEPARTMENT OF CE/IT/CE-AI

Subject: 2CEIT403: Application Development Tool
Practical List

AIM OF PRACTICAL

Practical 1 - Introduction

1. What is IDE? Give its examples and advantages.

2. What is GUI?

3. What types of applications can be developed by using Visual studio?

4. Which languages are supported by Visual studio?

5. List down .NET Framework versions and Visual studio version.

6. List out the features of Visual studio and new features of Visual studio 2019.

7. Compare Visual studio with other IDE.

8. Write advantages of C# language over other languages.

Practical 2 - Console applications: Basic Concepts

1. Write a program to get integer, double, character and string values from the user and display it on the screen.
2. Write a program to check whether the entered value is numeric or not. [Note: use try and catch.]
3. Write a program to accept a number from the user and throw an exception if the number is not an even number.
4. Write a program to find whether the given year is leap year or not. (Leap year is evenly divisible by 4, but if it is evenly divisible by 100 then it is not a leap year, but if it is evenly divisible by 400, then it is a leap year)
5. Write a program to check whether the given number is perfect or not. A number is perfect if the sum of its divisor is the same as the number itself.
   (For example: **6** is the smallest perfect number which can be divided by 1, 2 and 3 so 1+2+3=6 **OR 28** because the divisors of 28 are 1, 2, 4, 7, 14 so 1+2+4+7+14=28 too.)
6. Write a program to check whether the given number is lucky or not. (A number is lucky if the number is itself a prime and the sum of digit of a number is also prime)
7. Write a program to generate Floyd's Triangle.
8. Write a program to replace a substring of given length with new substring. (Input: starting index and length of substring)

Practical 3 - Console applications: Array and User defined functions Programs

1. Write a program to remove duplicate elements of an array.
2. Write a program for multiplication of two 2-dimensional matrices using 2-d array.
3. Write a program to generate Pascal Triangle using jagged array.
4. Write a user defined function to sort an array.
5. Demonstrate the use of params keyword with the help of a program.
6. Discuss out and ref parameters with the help of programs.

Practical-4 - Console Applications: Object Oriented Programming, StringBuilder And CommandLine Argument

1. Write a program to create a Class named ATM having following methods which performs ATM transaction:
   Balance_check() :- To Check the balance of Current Account
   Debit() :- To Withdraw money into Current Account
   Credit() :- To add money into Current Account
   Get_info() :- To see information of Account Holder
2. Write a program to find frequency of each element in an array using command Line Arguments.

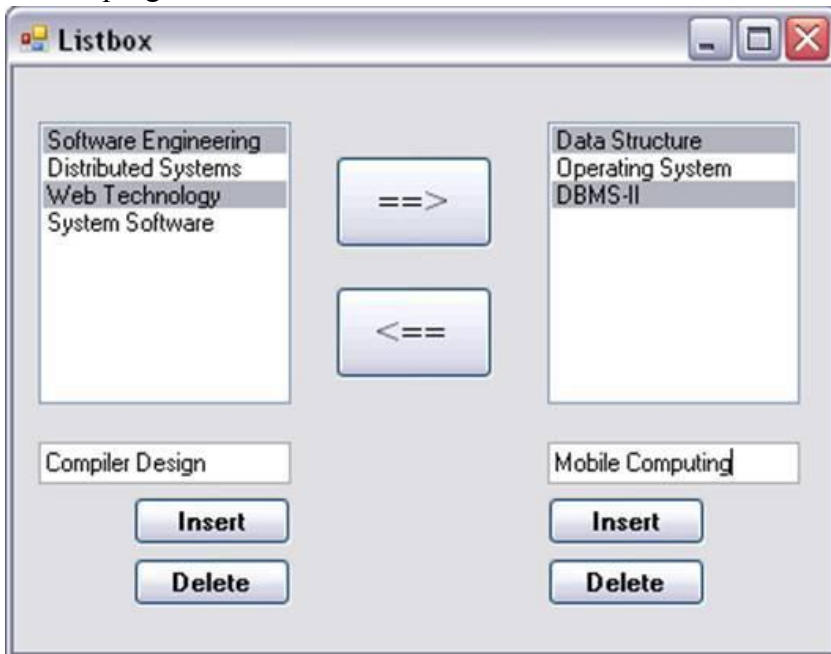| |
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| 3.   Write a program to explain StringBuilder Class. [Note: Use Append(), AppendFormat(), Insert(), Remove(), Replace() Methods.] |
| **Practical-5 -** Create a windows application having a Login module without a database. |
| **Practical-6 - Demonstrate the use of textbox, label and button controls for given windows applications**
 1. Create an application that allows the user to enter a number in the textbox named 'getnum'. Check whether the number in the textbox 'getnum' is palindrome or not. Print the message accordingly in the label control named lbldisplay when the user clicks on the button 'check'.
 2.Develop windows form which has two text boxes to enter two numbers(range). Now find all the armstrong numbers between given range and display all armstrong numbers in label.
 3. Create one form and three textboxes for mobile number, password and confirm password. Write a c# code for following:
 (i) To validate mobile number
 (ii) To check weather password and confirm password are same or not
 (iii) To check each and every textbox should not be empty
 [Note: Use textbox as your input] |
| **Practical 7 –List box**
Write a program to demonstrate use of ListBox.

The form should contain List boxes, Text boxes, and buttons as displayed.
- You should be able to select multiple values from list box. The multiple selected values can be shifted in another list box as displayed. |
| **Practical 8- file handling:** Develop an application for text editor using file handling concepts. Application should be able to create, edit the existing and save the text documents. |
| **Practical 9- ListView**
Create a windows Form for Hotel Menu using ListView. |

The form should contain ListView, NumericUpDpwn and button as displayed.

You should be able to select single item from listview.

The selected values can be shifted in another listview displayed.

The selected multiple items can be removed from listview 2.

Make total of selected item in display in label.

Practical 10

Develop a form which accepts and updates sr. no, roll no, name, branch, semester, and other personal information of student and store it into the database. You should be able to search and delete the information about a particular student.

Practical 11 : Develop a form which search and display student list in gridview.

Practical 12 : Design & develop ASP.net web application using master & content page.

Practical 13:Create Web Application having Registration Module of User.
  1. Design ASP.net web forms for registration using various server controls, ajax and validation controls. Registration form accepts first name, last name, username, password, date of birth, contact no, email, country, state, city and address All the information entry is compulsory. Password should be reconfirmed. Email id should be valid. Username should have at least a capital letter and digit as well as length should be between 7 and 20 characters.
  2. Write ADO.net code to insert record of user registration into user table.

Practical 14: Add Admin Module in Web Application created in Practical 13.
 1. Develop Asp.net web form to display list of user to admin using grid view and ajax controls using database.
 2. Admin should be able to delete user from database.

Practical 15: Add Login Module in Web Application created in Practical 13.
Develop Login Module of admin and user by checking username and password using database. If user has entered correct login credentials then store the information into session and redirect user to welcome page and display welcome message.

Practical-16: Create .net application to explore functionalities of LINQ.

Practical 17: Create web application to generate report.

Practical 18: Create simple MVC web application.