![SLIT logo] **BSc (Hons) in Information Technology**
Year 1
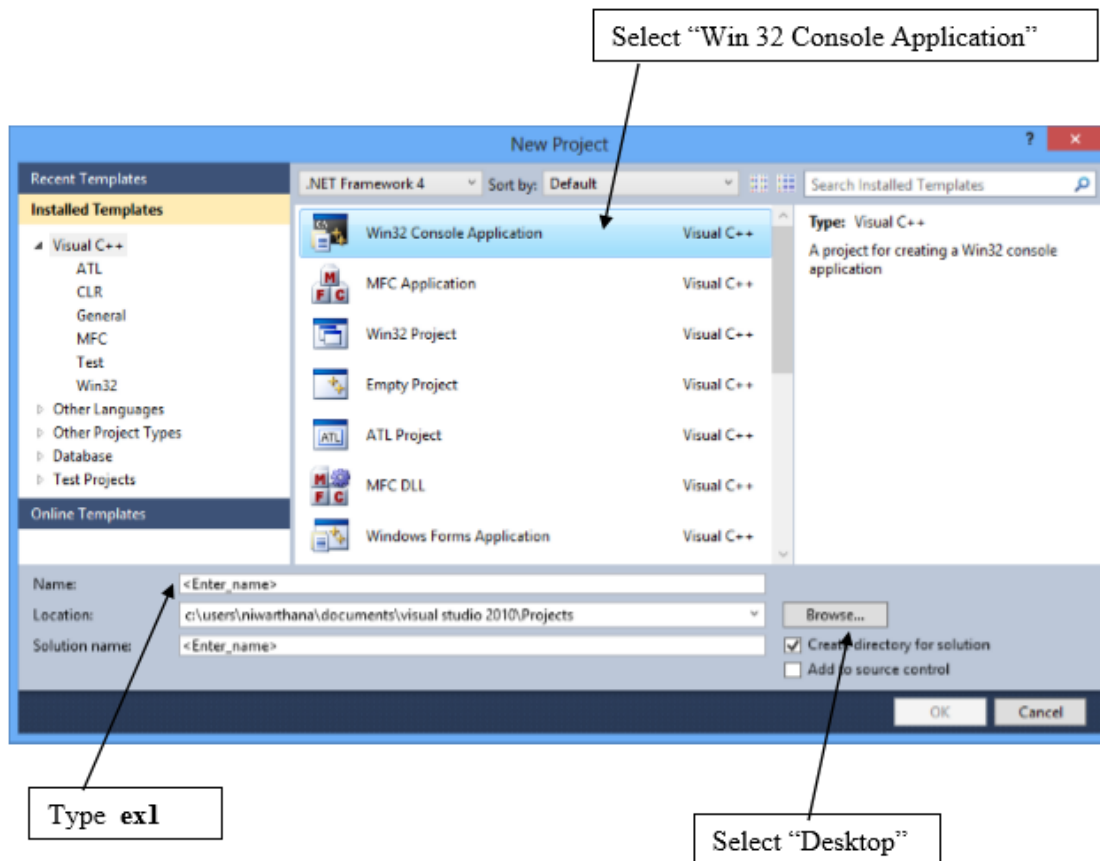
Lab Exercise 01

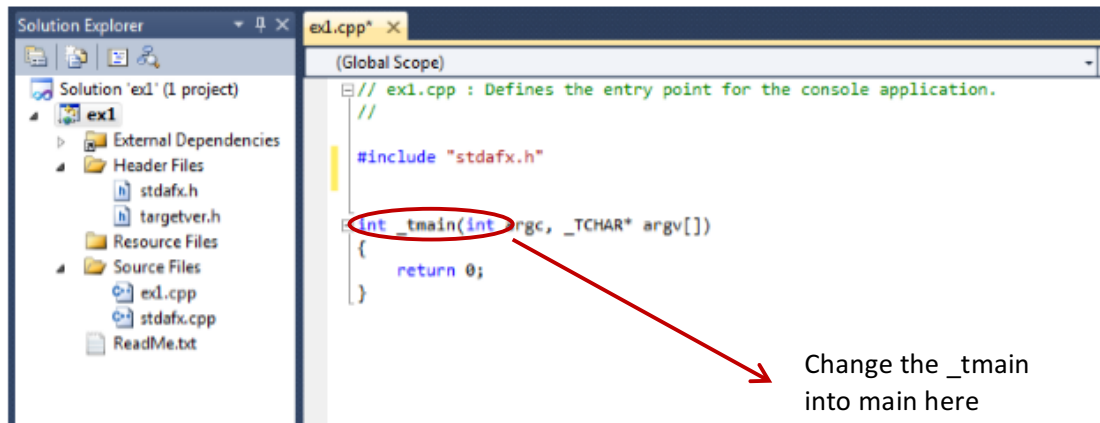## IT1050 – Object Oriented Concepts   Semester 1, 2017

Objectives:

- Learn to use the Visual Studio .Net 2010 platform.
- Use sequence, selection and repetition

Exercise 1:

(a) In Visual C++, create a new Win32 Console Application project. Save the project in your Desktop. We will name the project as Lab1a

Visual Studio 2010

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You will see the following screen where you can type your program.

Change the _tmain into main here

Note: In Visual Studio C++ the main function is main()

Now type the program.

```cpp
#include "stdafx.h"
#include<iostream>

using namespace std;

int main(int argc, _TCHAR* argv[])
{
    int marks1, marks2, marks3;
    float avg;

    cout<<"Input marks1: ";
    cin>>marks1;
    cout<<"Input marks2: ";
    cin>>marks2;
    cout<<"Input marks3: ";
    cin>>marks3;

    avg = (marks1+marks2+marks3)/3.0f;

    cout<<"Average is: "<<avg<<endl;

    char ch;
    cin>>ch;

    return 0;
}
```

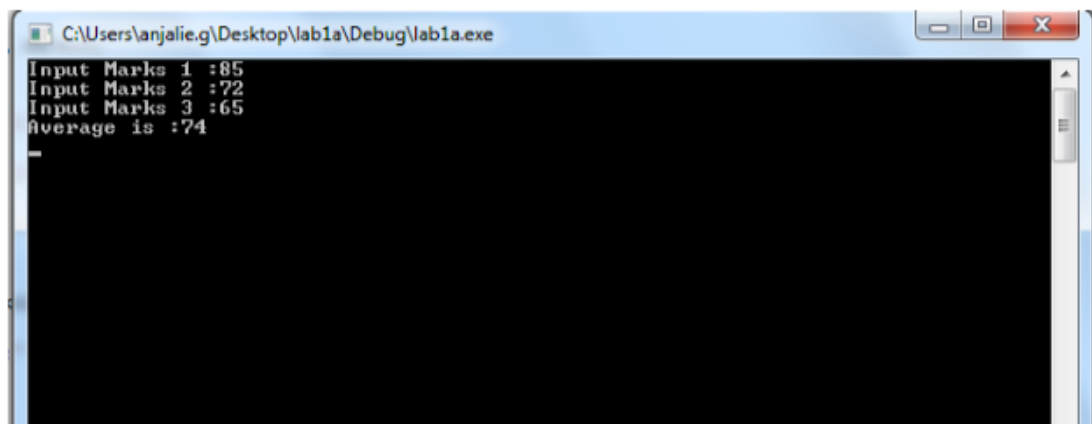Without this Visual Studio returns to the code window directly.

Lab Exercise 01

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Note: Make sure to get another user input as above even after displaying the output. Without that code section the terminal will exit immediately. To keep the terminal wait until the user enter a key insert that code segment when you are creating a console application.

(f) Compile and Run the above program.

The sample Output

Exercise 2:

Write a C++ program to enter a number from the keyboard and print whether it is a negative number or a positive number.

Exercise 3:

Write a C++ program to create a simple calculator. The program should allow the user to enter two numbers and an option. The options are

1. +

2. −

3. *

4. /

You should print an appropriate error message if the user enters invalid operator. Use nested if-else statements in your program.

2. Rewrite the above program using a switch statement.

Exercise 4:

Write a C++ program that uses while loop to print the following table of values. Use the tab escape sequence in the cout statement to separate the column with tabs.

```
N       10*N    100*N  1000*N
1       10      100    1000
2       20      200    2000
3       30      300    3000
4       40      400    4000
5       50      500    5000
6       60      600    6000
7       70      700    7000
8       80      800    8000
9       90      900    9000
10      100     1000   10000
```