Exercises

Objectives (Lab lecturer will introduce and demonstrate)

1. Be aware of basic program structure
2. Be able to write, compile and execute a program
3. Understand what compiling means
4. Know some basic command line instructions
5. Be able to write to the screen
6. Be able to perform simple arithmetic operations
7. Be able to read data from the user

Q1

Write a C# Sharp program to print Hello and your name in a separate line

E*xpected Output*

Hello:

Frank Ryan

**Q2**

**Write a c’ program to read in a users name a print Hello following by the name entered**

E*xpected Output*

Enter your name: Bob Marley

Hello Bob Marley, welcome to Sligo

Q3

Write a C# Sharp program to print the sum of 6 and 34

**Q4**

Write a C# Sharp program to print the result of dividing 40 by 5.

**Q5**

Write a C# Sharp program to print the result of the specified operations.

*Test data:*

-1 + 4 \* 6

( 35+ 5 ) % 7

14 + -4 \* 6 / 11

2 + 15 / 6 \* 1 - 7 % 2

*Expected Output*:  
23  
5  
12  
3

**Q6**

Write a C# Sharp program to print the output of multiplication of three numbers which will be entered by the user.

Input the first number to multiply: 2  
Input the second number to multiply: 3  
Input the third number to multiply: 6  
*Expected Output:*  
2 x 3 x 6 = 36

**Q7**

Write a C# Sharp program to print on screen the output of adding, subtracting, multiplying and dividing of two numbers which will be entered by the user.

*Test Data:*  
Input the first number: 25  
Input the second number: 4  
*Expected Output:*  
25 + 4 = 29  
25 - 4 = 21  
25 x 4 = 100   
25 / 4 = 6  
25 mod 4 = 1

Q8

Write a C# Sharp program that takes a number as input and print its multiplication table.

*Test Data:*  
Enter the number: 5  
*Expected Output:*  
5 \* 0 = 0  
5 \* 1 = 5  
5 \* 2 = 10   
5 \* 3 = 15  
....  
5 \* 10 = 50

**Q9**

Write a C# Sharp program that takes four numbers as input to calculate and print the average.

*Test Data:*  
Enter the First number: 10  
Enter the Second number: 15   
Enter the third number: 20   
Enter the four number: 30   
  
*Expected Output:*  
The average of 10 , 15 , 20 , 30 is: 18

**10.** Write a C# Sharp program to that takes three numbers(x,y,z) as input and print the output of (x+y).z and x.y + y.z.

*Test Data:*  
Enter first number - 5  
Enter second number - 6  
Enter third number - 7  
  
*Expected Output:*  
Result of specified numbers 5, 6 and 7, (x+y).z is 77 and x.y + y.z is 72

**11**. Write a C# Sharp program that takes an age (for example 20) as input and prints something as "You look older than 20".

*Test Data:*  
Enter your age - 25  
*Expected Output:*  
You look older than 25

**12.**Write a C# program to that takes a number as input and display it four times in a row (separated by blank spaces), and then four times in the next row, with no separation. You should do it two times: Use a formatted string

*Test Data:*  
Enter a digit: 25   
*Expected Output:*  
25 25 25 25   
25252525   
25 25 25 25   
25252525

**13** Write a C# program to convert from celsius degrees to Kelvin and Fahrenheit.

*Test Data:*  
Enter the amount of celsius: 30  
*Expected Output:*  
Kelvin = 303  
Fahrenheit = 86

**14.**Write a C# Sharp program to swap two numbers.

*Test Data:*  
Input the First Number : 5  
Input the Second Number : 6

Expected Output:   
After Swapping :  
First Number : 6   
Second Number : 5 

Q15

Write a program to enter the distance a car has covered (in KM) in a single journey and the time of that journey (in Hours), and return the average speed km per hour. (generate test data first)

Q16

Write a program that reads an integer number of miles, converts it to an equivalent number of kilometres, and outputs the result (1 km = 0.625 mile) (generate test data first)