

Assignment#1

Course: Software Quality Assurance.

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Reg#:

Ms(cs) 2nd Semester

PROGRAM IN C# FOR SHIFT KEY OF 3

```
using System;
using System.Linq;

namespace CaesarCypher
{
    class Program
    {
        static char Encrypt(char ch, int code)
        {
            if (!char.IsLetter(ch))
            {
                return ch;
            }
            char offset = char.IsUpper(ch) ? 'A' : 'a';
            return (char)((((ch + code - offset) % 26) + offset));
        }

        static string Encrypt(string input, int code)
        {
            return new string(input.ToCharArray().Select(ch => Encrypt(ch, code)).ToArray());
        }

        static string Decrypt(string input, int code)
        {
            return Encrypt(input, 26 - code);
        }
    }
}
```

```
const string TestCase = "I am willing to move abroad.";
```

```
static void Main()
```

```
{
```

```
    string str = TestCase;
```

```
    Console.WriteLine(str);
```

```
    str = Encrypt(str, 3);
```

```
    Console.WriteLine("Encrypted: {0}", str);
```

```
    str = Decrypt(str, 3);
```

```
    Console.WriteLine("Decrypted: {0}", str);
```

```
    Console.ReadKey();
```

```
}
```

```
}
```

```
}
```

Output:

I am willing to move abroad.

Encrypted: L DP ZHOO WR PRYH DEURG.

Decrypted: I am willing to move abroad.

FLOW CHART WITH KEY SHIFT 3

Static char Encrypt (char ch, int cod)

Read char, int code

Encrypt the char by shift 3

If char=Encrypt char

NO

Display output

PROGRAM IN C# FOR SHIFT KEY OF 4

All the program is same just like shift key of 3. So I just write here the main body of the program for shift key of 4.

```
static void Main()
{
    string str = TestCase;

    Console.WriteLine(str);
    str = Encrypt(str, 4);
    Console.WriteLine("Encrypted: {0}", str);
    str = Decrypt(str, 4);
    Console.WriteLine("Decrypted: {0}", str);
    Console.ReadKey();
}
}
```

Output:

I am willing to move abroad.

Encrypted: M AIPP KS QSZI EFVSH.

Decrypted: I am willing to move abroad.

FLOW CHART WITH SHIFT KEY 4

