SHAIKH AISHA ABDUL WAHEED TIT2324064

practical 15

Class Library

Code of library 1:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace fs1 // the library name
{
   public class fs11
   {
      public static int fact(int n)
      {
         int f = 1;
         for (int i = 1; i <= n; i++)
            f = f * i;
         return f;
      }
      public static int sod(int n)
      {
         int s = 0, d;
         while (n != 0)
         {
            d = n % 10;
            s = s + d;
            n = n / 10;
         }
```

```
            return s;
        }
    }
}
```

Code of library 2:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
namespace apowbpal //name of library 2
{
    public class ap1
    {
        public static int apowb(int a, int b)
        {
            int p = 1;
            for (int i = 1; i <= b; i++)
                p = p * a;
            return p;
        }
        public static bool ispalindrome(int n)
        {
            int n1 = n,d;
            int r = 0;
            while (n!=0)
            {
                d = n % 10;
                r = r * 10 + d;
                n = n / 10;
```

```
        }
        if (r == n1)
            return true;
        else
            return false;

    }
  }
}
```

Now, create a new console app:

In console app

Code:

```
using System;
using fs1;
using apowbpal;

class Program
{
  static void Main(string[] args)
  {
    Console.WriteLine("Enter a number to find factorial :");
    int n = int.Parse(Console.ReadLine());
    Console.WriteLine("Factorial of {0} is {1}", n, fs11.fact(n));
    Console.WriteLine("Enter a number to find sod :");
    int n2 = int.Parse(Console.ReadLine());
    Console.WriteLine("Factorial of {0} is {1}", n2, fs11.sod(n2));
    Console.WriteLine("Enter a and b to find a power b :");
    int a = int.Parse(Console.ReadLine());
    int b = int.Parse(Console.ReadLine());
    Console.WriteLine("{0} power {1} is : {2}", a, b, ap1.apowb(a, b));
```

```
        Console.WriteLine("Enter a number to check for Palindrome:");

        int n3 = int.Parse(Console.ReadLine());

        Console.WriteLine("Is {0} a Palindrome {1}", n3, ap1.ispalindrome(n3));

    }

}
```

Output:

```
Enter a number to find factorial :
3
Factorial of 3 is 6
Enter a number to find sod :
2345
Factorial of 2345 is 14
Enter a and b to find a power b :
2
3
2 power 3 is : 8
Enter a number to check for Palindrome:
121
```