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

INPUT :-

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Practical_4
{
    internal class Practical_4_1_
    {
    static void Main(string[] args)
    {
        Console.WriteLine("Name :AMIT GOSWAMI");
        Console.WriteLine("Enrollment No. : 21012021003");
        string name = "AMIT GOSWAMI ";
        int ACC_NO = 12345;
        int password = 123;
        int Balance = 200000;
        Console.WriteLine("Please Enter ACCOUNT information
:");
        Console.WriteLine("Please Enter Account Number :");
        int acc_no = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Please Enter Password :");
        int pass = Convert.ToInt32(Console.ReadLine());
        if (ACC_NO != acc_no || password != pass)
        {
            Console.WriteLine("Please Enter Correct
Information .");

        }
```


Name: AMIT.G
Enrollment No:21012021003
Batch/Branch: (4AB5)/IT

```
        else
        {
            Console.WriteLine("Welcome " + name);
        label:
            Console.WriteLine("Please Ener your choice : \n
1. Balance Check \n 2. Credit \n 3. Debit \n 4. Get
Information ");
            int a = Convert.ToInt32(Console.ReadLine());
            switch (a)
            {
                case 1:
                    Balance_check(Balance);
                    break;
                case 2:
                    Balance = Credit(Balance);
                    break;
                case 3:
                    Balance = Debit(Balance);
                    break;
                case 4:
                    Get_info(name, acc_no, Balance);
                    break;
                default:
                    Console.WriteLine("Please Enter Correct
Choice .");
                    break;
            }
            Console.WriteLine("Do You Want to Continue :\n
1. Yes \n 2. No");
            int b = Convert.ToInt32(Console.ReadLine());
            if (b == 1)
            {
                goto label;
            }
            else
            {
                Console.WriteLine("You Have completed your
operations .");
            }
        }
    }
    public static void Balance_check(int Balance)
    {
        Console.WriteLine("Balance is :" + Balance);
    }
    public static int Credit(int Balance)
    {
        Console.WriteLine("Enter the Value to Credit :");
        int n = Convert.ToInt32(Console.ReadLine());
```


Name: AMIT.G
Enrollment No:21012021003
Batch/Branch: (4AB5)/IT

```
    Balance += n;
        Console.WriteLine("Now Your Balance is : " +
Balance);
        return Balance;
    }
    public static int Debit(int Balance)
    {
        Console.WriteLine("Enter the Value to Debit :");
        int n = Convert.ToInt32(Console.ReadLine());
        Balance -= n;
        Console.WriteLine("Now Your Balance is : " +
Balance);
        return Balance;
    }
    public static void Get_info(string name, int acc_no,
int Balance)
    {
        Console.WriteLine("Your Account Information : \n
Name : " + name + " \nAccount No. : " + acc_no + "\n
Balance: " + Balance);
    }
    }
}
```

OUTPUT :-

```
Name :AMIT GOSWAMI
Enrollment No. : 21012021003
Please Enter ACCOUNT information :
Please Enter Account Number :
12345
Please Enter Password :
123
Welcome AMIT GOSWAMI
Please Ener your choice :
 1. Balance Check
 2. Credit
 3. Debit
 4. Get Information
2
Enter the Value to Credit :
23000
Now Your Balance is : 223000
Do You Want to Continue :
 1. Yes
 2. No
```


Name: AMIT.G
Enrollment No:21012021003
Batch/Branch: (4AB5)/IT

2. Write a program to find frequency of each element in an array using command Line Arguments

INPUT :-

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using static System.Net.Mime.MediaTypeNames;

namespace Practical_4
{
    internal class Practical_4_2_
    {
        static void Main(string[] args)
        {
            Console.WriteLine("21012021003_AMIT GOSWAMI");

            int i, count, j;
            int n = args.Length;
            int[] a = new int[100];
            int[] b = new int[100];
            Console.WriteLine("Enter the value in the
array");
            for (i = 0; i < 10; i++)
            {
                a[i] = Convert.ToInt32(Console.ReadLine());
                b[i] = -1;
            }
            for (i = 0; i < 10; i++)
            {
                count = 1;
                for (j = i + 1; j < 10; j++)
                {
                    if (a[i] == a[j])
                    {
                        count++;
                        b[j] = 0;
                    }
                }
                if (b[i] != 0)
                {
                    b[i] = count;
                }
```


Name: AMIT.G
Enrollment No:21012021003
Batch/Branch: (4AB5)/IT

```
            }
            Console.WriteLine("");
            for (i = 0; i < 10; i++)
            {
                if (b[i] != 0)
                {
                    Console.WriteLine(a[i] + " Occur " +
b[i] + " Times ");
                }
            }
            Console.ReadKey();
        }
    }
}
```

OUTPUT :-

```
21012021003_AMIT GOSWAMI
Enter the value in the array
2
3
4
5
6
7
2
3
9
3

2 Occur 2 Times
3 Occur 3 Times
4 Occur 1 Times
5 Occur 1 Times
6 Occur 1 Times
7 Occur 1 Times
9 Occur 1 Times
```

3. Write a program to explain StringBuilder Class. [Note: Use Append(), AppendFormat(), Insert(), Remove(), Replace() Methods.]

INPUT :-

```
using System;
using System.Collections.Generic;
using System.Text;
```

```
using System.Threading.Tasks;
namespace Practical_4
{
    internal class Practical_4_3_
    {
        static void Main(string[] args)
        {
            Console.WriteLine("21012021003_AMIT GOSWAMI");

            string a = "AMIT GOSWAMI";
            string[] b = new string[3] { "GUNI", "UVPCE",
"CE/IT" };
            StringBuilder bs = new StringBuilder();
            StringBuilder sb = new StringBuilder(a);
            a = Convert.ToString(sb.Append("AMIT"));
            Console.WriteLine(a);
            int count = 0;
            foreach (string v in b)
            {
                bs.AppendFormat("you have viisited {0}
({1}) \n", v, count);
                count++;
            }
            Console.WriteLine(bs);
            a = Convert.ToString(sb.Insert(4, "GOSWAMI"));
            Console.WriteLine(a);
            a = Convert.ToString(sb.Remove(3,1));

Console.WriteLine(a);
            a = Convert.ToString(sb.Replace("AMIT GOSWAMI",
"SUMIT GOSWAMI"));
            Console.WriteLine(a);
            Console.ReadLine();
        }
    }
}
```

OUTPUT :-

```
21012021003_AMIT GOSWAMI
AMIT GOSWAMIAMIT
you have viisited GUNI (0)
you have viisited UVPCE (1)
you have viisited CE/IT (2)

AMITGOSWAMI GOSWAMIAMIT
AMIGOSWAMI GOSWAMIAMIT
AMIGOSWAMI GOSWAMIAMIT
```

+-

Name: AMIT.G
Enrollment No:21012021003
Batch/Branch: (4AB5)/IT