

VASANTHABALAN M

1)

Main Class:

```
using System;
```

```
namespace Questions1 // Note: actual namespace depends on the project name.
```

```
{
```

```
    internal class Program
```

```
    {
```

```
        static void Main(string[] args)
```

```
        {
```

```
            Console.WriteLine("Enter the CustomerName:");
```

```
            string customernme = Console.ReadLine();
```

```
            Console.WriteLine("Enter the customerAge:");
```

```
            int aes = Convert.ToInt32(Console.ReadLine());
```

```
            //Customer customer = new Customer(customernme, aes);
```

```
            //customer.disp();
```

```
            Console.WriteLine("Enter the choices: 1)LoanAccount 2) SavingsAccount");
```

```
            int ch = Convert.ToInt32(Console.ReadLine());
```

```
            switch (ch)
```

```
            {
```

```
                case 1:
```

```
                    Console.WriteLine("Enter the LoanAccount");
```

```
                    int lact = Convert.ToInt32(Console.ReadLine());
```

```
                    Console.WriteLine("Enter the LoanAmount");
```

```
                    int lamt = Convert.ToInt32(Console.ReadLine());
```

```
                    Console.WriteLine("Enter the Loantenuriyrs");
```

```
                    int ltyr = Convert.ToInt32(Console.ReadLine());
```

```
                    LoanAccount loanAccount = new LoanAccount(lact,lamt,ltyr,customernme, aes);
```

```
                    loanAccount.loanDisp();
```

```
                    break;
```

```
                case 2:
```

```
                    Console.WriteLine("Enter the AccountNumber:");
```

```
                    int ano = Convert.ToInt32(Console.ReadLine());
```

```

        Console.WriteLine("Enter the Amount:");
        int amt = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter the BranchName:");
        string bnme = Console.ReadLine();
        Console.WriteLine("Enter the IFSC code:");
        string cod = Console.ReadLine();
        SavingsAccount savingsAccount = new
SavingsAccount(ano,amt,bnme,cod,customername, aes);
        savingsAccount.savngDisp();
        break;
    default:
        Console.WriteLine("Enter the correct choice either 1 or 2");
        break;
    }

}

}
}
}

```

Customer class:

```

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

namespace Questions1
{
    internal class Customer
    {
        private string customerName;
        private int age;

        public Customer(string customerName, int age)
    }
}

```

```

    {
        this.CustomerName = customerName;
        this.Age = age;
    }

    public string CustomerName { get => customerName; set => customerName = value; }
    public int Age { get => age; set => age = value; }

    public void disp()
    {
        Console.WriteLine(this.CustomerName);
        Console.WriteLine(this.Age);
    }

}
}

```

Derived class1:

```

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

namespace Questions1
{
    internal class LoanAccount:Customer
    {
        private int accountNo;
        private int loanAmount;
        private int loanTenureinyrs;

        public LoanAccount(int accountNo, int loanAmount, int loanTenureinyrs, string
customerName, int age):base(customerName,age)
        {
            AccountNo1 = accountNo;

```

```

        LoanAmount1 = loanAmount;
        LoanTenureinys1 = loanTenureinys;
    }

```

```

public int AccountNo1 { get => accountNo; set => accountNo = value; }
public int LoanAmount1 { get => loanAmount; set => loanAmount = value; }
public int LoanTenureinys1 { get => loanTenureinys; set => loanTenureinys = value; }

```

```

public void loanDisp()
{
    Console.WriteLine(this.CustomerName);
    Console.WriteLine(this.Age);
    Console.WriteLine(this.AccountNo1);
    Console.WriteLine(this.LoanAmount1);
    Console.WriteLine(this.LoanTenureinys1);
}
}
}

```

Derived class2:

```

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

```

```

namespace Questions1

```

```

{
    internal class SavingsAccount:Customer
    {
        private int accountNumber;
        private int amount;
        private string branchName;
        private string iFSC;

        public SavingsAccount(int accountNumber, int amount, string branchName, string iFSC, string

```

```
customerName, int age):base(customerName,age)
```

```
{  
    this.AccountNumber = accountNumber;  
    this.Amount = amount;  
    this.BranchName = branchName;  
    this.IFSC = iFSC;  
}
```

```
public int AccountNumber { get => accountNumber; set => accountNumber = value; }
```

```
public int Amount { get => amount; set => amount = value; }
```

```
public string BranchName { get => branchName; set => branchName = value; }
```

```
public string IFSC { get => iFSC; set => iFSC = value; }
```

```
public void savngDisp()
```

```
{  
    Console.WriteLine(this.CustomerName);  
    Console.WriteLine(this.Age);  
    Console.WriteLine(this.AccountNumber);  
    Console.WriteLine(this.BranchName);  
    Console.WriteLine(this. IFSC);  
}  
}  
}
```

Output:

```
Microsoft Visual Studio Debug Console
Enter the CustomerName:
aswin
Enter the customerAge:
21
Enter the choices: 1)LoanAccount 2) SavingsAccount
1
Enter the LoanAccount
2121
Enter the LoanAmount
1200
Enter the Loantenuriyrs
2
aswin
21
2121
1200
2

C:\Users\Administrator\source\repos\Questions1\Questions1\bin\Debug\net6.0\Questions1.exe (process 27656) exited with code 0.
Press any key to close this window . . .
```

2)Work with concept of abstract class with own implementation.

MainClass:

```
using AbstractQues;
```

```
using System;
```

```
namespace AbstractQues // Note: actual namespace depends on the project name.
```

```
{
    internal class Program
    {
        public static void Main(string[] args)
        {
            Done done = new Done();
            done.check();
        }
    }
}
```

Abstractclass:

```
using System;
```

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

```
using System.Linq;
```

```
using System.Text;
using System.Threading.Tasks;

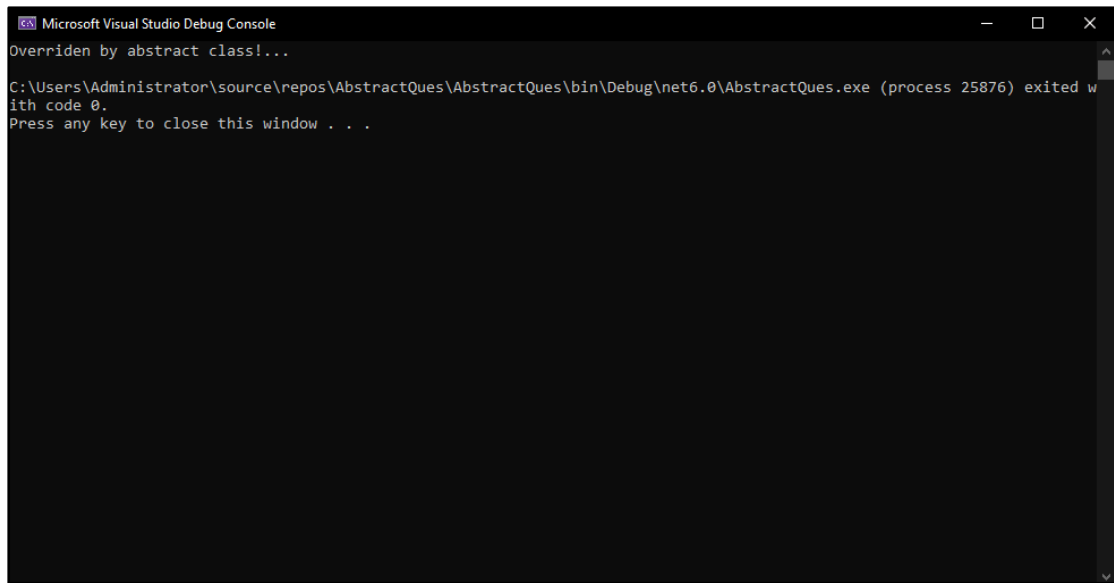
namespace AbstractQues
{
    internal abstract class AbstClas
    {
        public abstract void chech();
    }
}
```

Derived class:

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

namespace AbstractQues
{
    internal class Done:AbstClas
    {
        public override void chech()
        {
            Console.WriteLine("Overriden by abstract class!...");
        }
    }
}
```

Output:



3)Work with concept of interface

Main Classes:

```
using AbstractQues;
```

```
using System;
```

```
namespace AbrrstactQues // Note: actual namespace depends on the project name.
```

```
{  
    internal class Program  
    {  
        public static void Main(string[] args)  
        {  
            //Done done = new Done();  
            //done.chech();  
            Console.WriteLine("Enter the string var 1)UI 2)DB");  
            string ch = Console.ReadLine();  
            UI ul = new UI();  
            DB dbI = new DB();  
            switch (ch)  
            {  
                case "UI":  
                    Console.WriteLine(ul.progress());  
                    break;  
                case "DB":  
                    Console.WriteLine(dbI.progress());  
            }  
        }  
    }  
}
```



```

        break;
    default:
        Console.WriteLine("Enter the correct choices!!..Like caps must ON");
        break;
    }

    }
}

```

Interface CClass:

```

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

```

namespace AbstractQues

```

{
    internal interface Iproject
    {
        public string progress();
    }
}

```

Derivedclass1:

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Net.Http.Headers;
using System.Text;
using System.Threading.Tasks;

```

namespace AbstractQues

```

{

```

```

internal class UI:Iproject
{
    public string progress()
    {
        return "Completed UI";
    }
}

```

Derived class2:

```

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

```

```

namespace AbstractQues
{
    internal class DB:Iproject
    {
        public string progress()
        {
            return "Completed DB Design";
        }
    }
}

```

4)Implement multiple inheritance with abstract class and interface.

```

using AbstractQues;
using System;

```

```

namespace AbstractQues // Note: actual namespace depends on the project name.
{
    internal class Program
    {
        public static void Main(string[] args)
        {

```

```
DrvdCls drvdCls = new DrvdCls();  
drvdCls.name();
```

```
    }  
    }  
}
```

intrfce class:

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

```
namespace AbstractQues
```

```
{  
    internal class samePrnt  
    {  
        public void dispy()  
        {  
            Console.WriteLine("This is contains as a parent!..");  
        }  
    }  
}
```

Interface:

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

```
namespace AbstractQues
```

```
{  
    internal interface Interface1  
    {  
        public void name();  
    }  
}
```

```

    }
}

derivedclass:

using System;
using System.Collections.Generic;
using System.Linq;
using System.Security.Cryptography.X509Certificates;
using System.Text;
using System.Threading.Tasks;

namespace AbstractQues
{
    internal class DrvdCls : samePrnt,Interface1
    {
        public DrvdCls():base()
        {

        }

        public void drvd()
        {
            Console.WriteLine("This is derived class");
        }

        public void name()
        {
            Console.WriteLine("This is an interface consider as base class");
        }

    }
}

```

Output:

```
Microsoft Visual Studio Debug Console
This is an interface consider as base class
C:\Users\Administrator\source\repos\AbstractQues\AbstractQues\bin\Debug\net6.0\AbstractQues.exe (process 18856) exited with code 0.
Press any key to close this window . . .
```

5)ascend

```
using AbstractQues;
```

```
using System;
```

```
namespace AbstractQues // Note: actual namespace depends on the project name.
```

```
{
```

```
    internal class Program
```

```
    {
```

```
        public static void Main(string[] args)
```

```
        {
```

```
            Console.Write("Enter limit: ");
```

```
            int limit = Convert.ToInt32(Console.ReadLine());
```

```
            int[] arr = new int[limit];
```

```
            for (int i = 0; i < limit; i++)
```

```
            {
```

```
                arr[i] = Convert.ToInt32(Console.ReadLine());
```

```
            }
```

```
            for (int i = 0; i < limit; i++)
```

```
            {
```

```
                for (int j = i + 1; j < limit; j++)
```

```
                {
```

```

        if (arr[i] > arr[j])
        {
            int temp = arr[i];
            arr[i] = arr[j];
            arr[j] = temp;
        }
    }
}

Console.WriteLine(String.Join(", ", arr));

```

```

    }
}
}

```

6. Just implement **class** and use getter and setter **in** it

```

namespace Assign3
{
    internal class Array
    {
        private int id;
        private string name;
        private int age;
        private string addr;
        public Array(int id, string name, int age, string addr)
        {
            this.id = id;
            this.name = name;
            this.age = age;
            this.addr = addr;
        }

        public int Id { get => id; set => id = value; }
        public string Name { get => name; set => name = value; }
        public int Age { get => age; set => age = value; }
        public string Addr { get => addr; set => addr = value; }

        public void display()
        {
            Console.WriteLine(this.id);
            Console.WriteLine(this.name);
            Console.WriteLine(this.age);
            Console.WriteLine(this.addr);
        }
    }
}
internal class Program
{
    public static void Main(string[] args)

```

```

{
    Console.Write("Enter id: ");
    int id = Convert.ToInt32(Console.ReadLine());

    Console.Write("Enter Name: ");
    string name = Console.ReadLine();

    Console.Write("Enter Age: ");
    int age = Convert.ToInt32(Console.ReadLine());

    Console.Write("Enter addr: ");
    string addr = Console.ReadLine();

    Array array = new Array(id, name, age, addr);
    array.display();
}
}
}

```

7.

```

public void jagged()
{
    int i, j;
    int[][] jaggedArray = new int[4][];
    jaggedArray[0] = new int[] { 1, 2, 3, 4, 5 };
    jaggedArray[1] = new int[] { 40, 50, 11, 4 };
    jaggedArray[2] = new int[] { 55, 17 };
    jaggedArray[3] = new int[4];

    Console.WriteLine(jaggedArray[0][2]);

    for (i = 0; i < jaggedArray[3].Length; i++)
    {
        jaggedArray[3][i] = Convert.ToInt32(Console.ReadLine());
    }

    int[,] jaggy = new int[3, 4];
    jaggy[0] = new int[5, 4];
    jaggy[1] = new int[6, 5];
    jaggy[2] = new int[7, 6];

    for (i = 0; i < 5; i++)
    {
        for (j = 0; j < 4; j++)
        {
            jaggy[0][i, j] = Convert.ToInt32(Console.ReadLine());
        }
    }

    for (i = 0; i < 5; i++)
    {
        for (j = 0; j < 4; j++)
        {
            Console.Write(jaggy[0][i, j]);
        }
        Console.WriteLine();
    }
}

```

