17-37587-1

(1)

```
Using System;
namespace Interface1
{
interface calculator
{
{
class Basic calculator
calculator
{
  int x1;
  int x1;
  Public int sum (int x, int y)
{
  x1=x;
  y1=y;
  return x+y;
{
Public int sub (int x, int y)
{
  x1=x;
  y1=y
  return x-y;
{
Public int mul(int x, int y)
{
  x1=x;
```

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```
    y1=x;
    return x*y;
  {
  Public int div(int x, int y)
    {
      x1=x;
      x1=y;
      return x/y;
    {
class Scientific calculator;
calculator
  {
    int x1;
    int y1;
Public int sum (int x, int y)
{
    x1=x;
    y1=y;
    return x+y;
  {
Public int sub (int x, int y)
```

```
{
    x1=x;
    y1=y;
    return x-y;
}
public int mul(int x, int y)
{
    x1=x;
    y1=y;
    return x*y;
}
public int div(int x, int y)
{
    x1=x;
    y1=y
    return x/y;
}
public double xtoy(int x, int y)
{
    x1=x;
    y1=y;
```

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```
double pob= Convert.ToInt32
(Console.ReadLine());
double pob=Math.Pow(2,c);
    return Pob;
}
Public double Exponential(int x)
{
    x1=x;
    double exp= Math.Exp(10);
return exp;
}
{
class Program
{
static void main(string[]args)
{
```

```
Console.WriteLine("Basic calculator - ");
Basic calculator c1 = new Basic calculator();
Console.WriteLine("\n Sum: "+c1.sum(9,2));
console.writeline("\n sub: "+c1,sub(9,2));
console. Writeline("\n mul: "+c1.mul(9,2);
console .Writeline("\nDiv: "+c1.Div(9,2);
console.writeline("\n scientific cal");
Scientific calculator c2 = new
scientific calculator();
console.WriteLine("\n Sum: "+c2.sum(2,6));
console.Writeline("\n sub: "+c2.sub(2,6));
console.writeline("\n mul: "+c2.mul(2,6));
console.Writeline("\n Div: "+c2.div(9,2));
console.Writeline("x to y :"+c2.xtoy(2,6));
console.Writeline("Exponential: "+c2.
    Exponential(10));
}
{
{
```

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```
Using system
Using.system.collections.Generic
Using.system.Text;
namespace Assignment.Midterm2
{
interface BasicBankingInterface
{
bool deposite(int amount);
bool withdraw(int amount);
{
{
class BankAccount : BasiBanking
Interface
{
Protected string accID
Protected string itcount=0;
Protected int balanc;
public string accaut type
```

```
public person user;
public static person [] customers =
 new person [1000];
 Public BankAccount()
 {
 {
Public Bank Account (person user)
  {
  this.user = user;
  add customer (user);
  }
Public BankAccount (string account type)
 {
this.account = account type;
 {
 Public int Balance
  { get
     { return balance;
     }
  {
```

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```
Public person user
{get
 {return user;
 }
{
public virtual bool deposit
(int amount){
  balance = balance + amount;
 console.WriteLine("deposit of
 successful", amount);
}o{ this
 return type;
{
public virtual bool Withdraw(int
                        amount)

{
 bool success = false;
 if (amount <= balance)
```

```
    {
        balance = balance - amount;
        success = true;
    }
    else
    {
        Console.WriteLine("Not Enough balance!!");
    }
    return success;
}

public void addCustomer(Person customer)
{
    for (int i = 0; i < customers.Length; i++)
    {
        if (customers[i] == customer)
        {
            customers[i] = null;
        }
    }
}

for (int i = 0; i < customers.Length; i++)
```

```
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if (customers[i] == null)
{
customers[i] = customer;
break;
}
}
{
internal void showAllCustomers()
{
for (int i=0; i<customers.Length;
                i++)
{
if (customers[i] != null)
{
BankAccount = customers[i].get
    Account();
bank Account.showcastomres
  info()
{
{
```

```
internal virtual void showcustomer()
{
Console.WriteLine("This is a virtual
    method");
}
}

class main
{
static void main(string[] args)
{
BankAcc b= new BankAcc();
BankAcc b1;
BankAcc b2;
BankAcc b3;
BankAcc b4;
Person S1=new person("x",1234,016
                    25);
```

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```
b1=s1.createAcc(s1,"saving");
b1=s1.changAcc(b1,s1,"current");
b1.deposit(1000);
person s2= new person("y", 234,
        0164,  26);
b2 = s2.create Acc (s2,"saving");
b2.deposit(3000);
b2.withdraw(2500);
Person s4 = new person("A", 24,31;
        01676X, 23);
b4.deposite(700)
b4 = s4.create Acc(s4,"current");
b4 = s4.change Acc(b4, s4, saving)
b4.withdraw(C500);
b.showAllcustomers();
```

(3)
```
using.system;
using . system . collection . Generic;
using system . Text;
namespace Radio
  {
  interface Radio
  {
  interface Radio player
  {
  void switch (Boolean on);
  void returs ( double frequency);
  void set volume ( int loudness);
  void change channel ();
  {
  interface music player
{
  void switch 1 ( Boolean on)
  void play (Boolean on);
  void set volume (int loudness);
  void paly Next ();
  void play previous ();
{
```

19-30557-1

```
class Music
{private string title;
Private string artist;
Private int yearofRelease;
Private int durationInSec;
Public string Title
  {
    ~~get;~~
    set;
    get;
  }
Public string Artist
  {set;
   get;
  }
Public int ReleaseYear
  {
  set;
  get;
```

```
public int Duration
  {
   set;
   get;
  }
{
public Music()
{
Console.WriteLine("This is
empty constractor");
Public Music(string title,
string artist, int year of
Release, int durationInSec)
  {
  this.title = title;
  this.artist = artist;
  this.yearofRelease =
  year of Release;
  this.durationInSec =
  durationInSec;
```

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```
void Title1()
{
console.writeline("current
  song is :" + this.title);

{
void title 2()
{
console.WriteLine("current song
is :" + this.title)

{ class play : radio player.
{ public void
switch (Boolean on)
{ if (on == true)
{ console.writeline(radio
```

```
    {
    else
     {
    console.WriteLine("stopped");
     {
    {
console.WriteLine("Radio status");
    play S1 = new play();
    S1.switch(true);
    S1.setvolume(50);
    S1.changechannel();
    S1.switch1(true);
     S1.  play(true);
     S1. setvolume(100);
     S1.playNext();
      S1.playprevious();
    {
```