DAY 2
C#

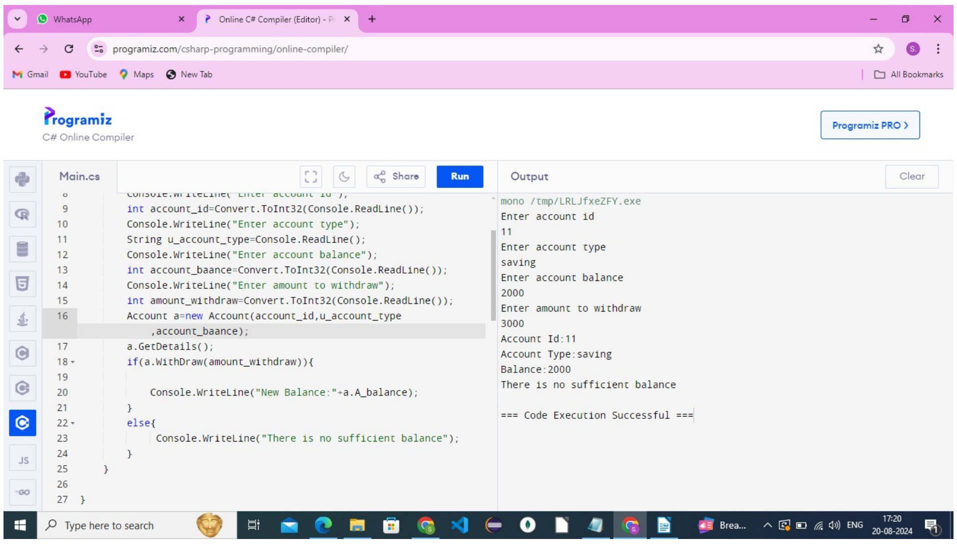
1.ACCOUNT DETAILS

CODE:

```
using System;

public class Program
{
   public static void Main(string[] args)
   {
      Console.WriteLine("Enter account id");
      int account_id=Convert.ToInt32(Console.ReadLine());
      Console.WriteLine("Enter account type");
      String u_account_type=Console.ReadLine();
      Console.WriteLine("Enter account balance");
      int account_baance=Convert.ToInt32(Console.ReadLine());
      Console.WriteLine("Enter amount to withdraw");
      int amount_withdraw=Convert.ToInt32(Console.ReadLine());
      Account a=new Account(account_id,u_account_type,account_baance);
      a.GetDetails();
      if(a.WithDraw(amount_withdraw)){

         Console.WriteLine("New Balance:"+a.A_balance);
      }
      else{
          Console.WriteLine("There is no sufficient balance");
      }
   }

}

public class Account{
   int id;
   string accountType;
   double balance;

   public int A_id{
      get{
         return id;
      }
      set{
         id=value;
      }
   }

   public string A_accountType{
      get{
         return accountType;
      }
```

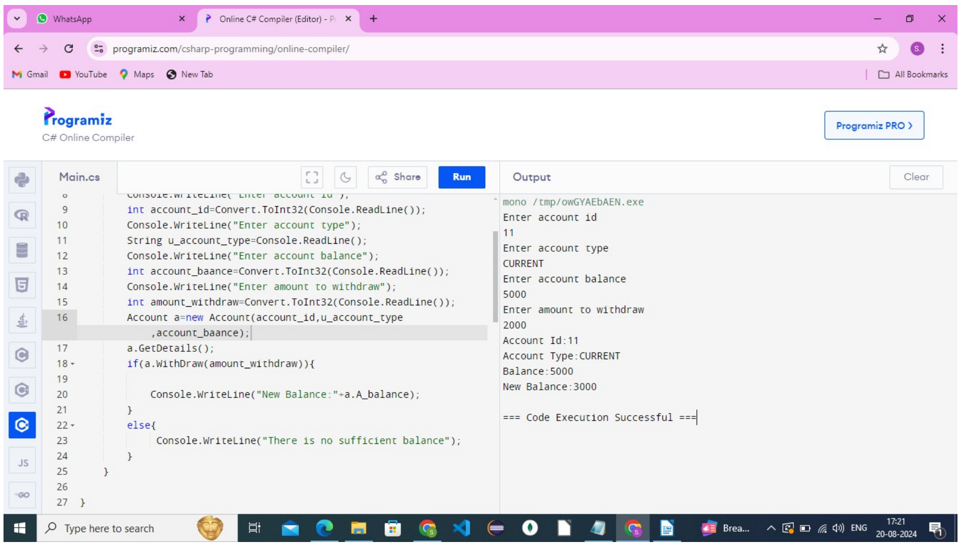
```
        set{
            accountType=value;
        }
    }

    public double A_balance{
        get{
            return balance;
        }
        set{
            balance=value;
        }
    }

    public Account(int id,string accountType,double balance){
        this.id=id;
        this.accountType=accountType;
        this.balance=balance;
    }

    public bool WithDraw(double amount){
        if(balance<amount){
            return false;
        }
        else{
            balance=balance-amount;
            return true;
        }
    }

    public string GetDetails(){
        Console.WriteLine("Account Id:"+id);
        Console.WriteLine("Account Type:"+accountType);
        Console.WriteLine("Balance:"+balance);
        return null;
    }

}
```

OUTPUT:



```
Console.WriteLine("Enter account id");
int account_id=Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter account type");
String u_account_type=Console.ReadLine();
Console.WriteLine("Enter account balance");
int account_baance=Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter amount to withdraw");
int amount_withdraw=Convert.ToInt32(Console.ReadLine());
Account a=new Account(account_id,u_account_type
    ,account_baance);
a.GetDetails();
if(a.WithDraw(amount_withdraw)){

    Console.WriteLine("New Balance:"+a.A_balance);
}
else{
     Console.WriteLine("There is no sufficient balance");
}
    }

}
```

```
mono /tmp/LRLJfxeZFY.exe
Enter account id
11
Enter account type
saving
Enter account balance
2000
Enter amount to withdraw
3000
Account Id:11
Account Type:saving
Balance:2000
There is no sufficient balance

=== Code Execution Successful ===
```



```
Console.WriteLine("Enter account id");
int account_id=Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter account type");
String u_account_type=Console.ReadLine();
Console.WriteLine("Enter account balance");
int account_baance=Convert.ToInt32(Console.ReadLine());
Console.WriteLine("Enter amount to withdraw");
int amount_withdraw=Convert.ToInt32(Console.ReadLine());
Account a=new Account(account_id,u_account_type
    ,account_baance);
a.GetDetails();
if(a.WithDraw(amount_withdraw)){

    Console.WriteLine("New Balance:"+a.A_balance);
}
else{
     Console.WriteLine("There is no sufficient balance");
}
    }

}
```

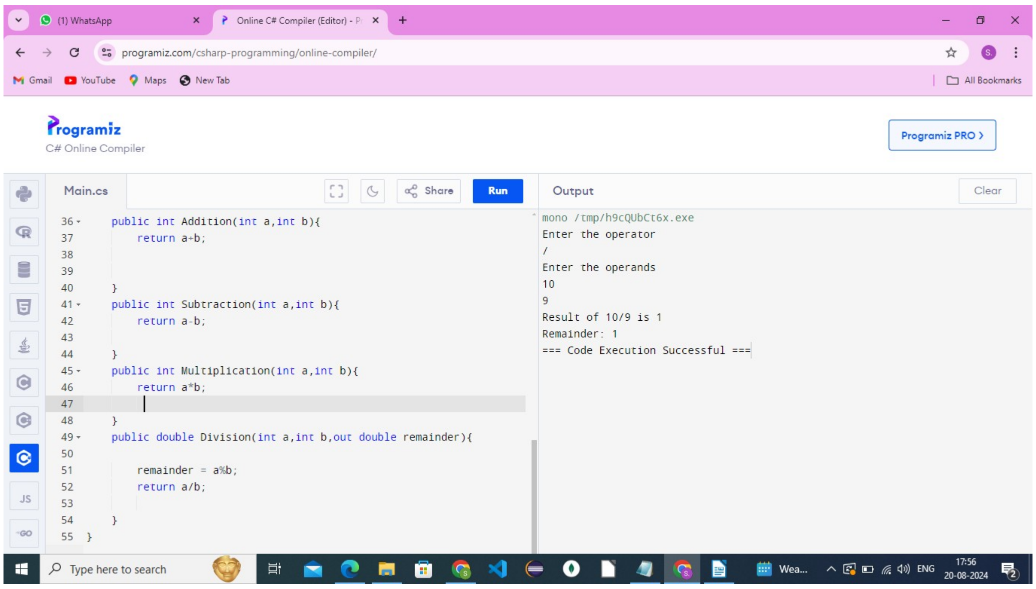
```
mono /tmp/owGYAEbAEN.exe
Enter account id
11
Enter account type
CURRENT
Enter account balance
5000
Enter amount to withdraw
2000
Account Id:11
Account Type:CURRENT
Balance:5000
New Balance:3000

=== Code Execution Successful ===
```

2. CALCULATOR PROGRAM

CODE:

```
using System;

public class Program
{
    public static void Main(string[] args)
    {
       Console.WriteLine("Enter the operator");
       string input=Console.ReadLine();
       Console.WriteLine("Enter the operands");
       int a=Convert.ToInt32(Console.ReadLine());
       int b=Convert.ToInt32(Console.ReadLine());
       Calculator c=new Calculator();
       if(input.Equals("+")){
            Console.WriteLine("Result of "+a+"+"+b+" is "+ c.Addition(a,b));
       }
       else if(input.Equals("-")){
           Console.WriteLine("Result of "+a+"-"+b+" is "+ c.Subtraction(a,b));
       }
       else if(input.Equals("*")){
            Console.WriteLine("Result of "+a+"*"+b+" is "+ c.Multiplication(a,b));
       }
       else if(input.Equals("/")){
           double d;
             Console.WriteLine("Result of "+a+"/"+b+" is "+ c.Division(a,b,out d));
           Console.Write("Remainder: "+d);

       }
       else{
           Console.WriteLine("Invalid Operator");
       }
    }
}

public class Calculator{

    public int Addition(int a,int b){
        return a+b;


    }
    public int Subtraction(int a,int b){
        return a-b;

    }
    public int Multiplication(int a,int b){
            return a*b;

        }
        public double Division(int a,int b,out double remainder){

            remainder = a%b;
            return a/b;

        }
    }
```

OUTPUT:



```
    public int Addition(int a,int b){
        return a+b;


    }
    public int Subtraction(int a,int b){
        return a-b;

    }
    public int Multiplication(int a,int b){
        return a*b;

    }
    public double Division(int a,int b,out double remainder){

        remainder = a%b;
        return a/b;

    }
}
```

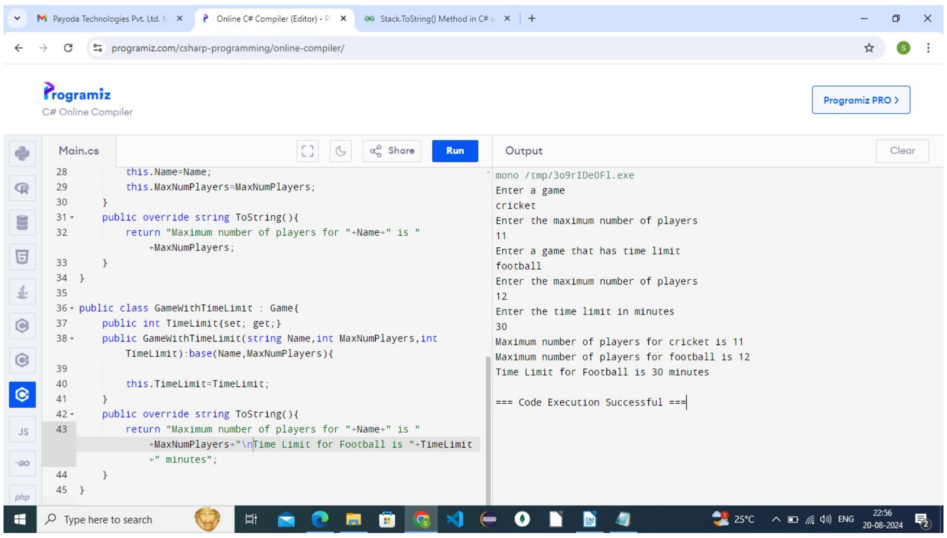
```
mono /tmp/h9cQUbCt6x.exe
Enter the operator
/
Enter the operands
10
9
Result of 10/9 is 1
Remainder: 1
=== Code Execution Successful ===
```

3. Class Program

CODE:

```
using System;

public class Program
{
    public static void Main(string[] args)
    {
       Console.WriteLine("Enter a game");
       String game_name=Console.ReadLine();
       Console.WriteLine("Enter the maximum number of players");
       int no_of_players=Convert.ToInt32(Console.ReadLine());
       Console.WriteLine("Enter a game that has time limit");
       String time_limit=Console.ReadLine();
       Console.WriteLine("Enter the maximum number of players");
       int max_of_players_time=Convert.ToInt32(Console.ReadLine());
       Console.WriteLine("Enter the time limit in minutes");
       int time_minit=Convert.ToInt32(Console.ReadLine());
       Game g1=new Game(game_name,no_of_players);
       GameWithTimeLimit g=new
GameWithTimeLimit(time_limit,max_of_players_time,time_minit);
       Console.WriteLine(g1);
       Console.WriteLine(g);
    }
}

public class Game{
    public string Name{set; get;}
    public int MaxNumPlayers{set; get;}
    public Game(string Name,int MaxNumPlayers){
        this.Name=Name;
        this.MaxNumPlayers=MaxNumPlayers;
    }
    public override string ToString(){
        return "Maximum number of players for "+Name+" is "+MaxNumPlayers;
    }
}

public class GameWithTimeLimit : Game{
    public int TimeLimit{set; get;}
    public GameWithTimeLimit(string Name,int MaxNumPlayers,int
TimeLimit):base(Name,MaxNumPlayers){

        this.TimeLimit=TimeLimit;
    }
    public override string ToString(){
        return "Maximum number of players for "+Name+" is "+MaxNumPlayers+"\nTime
Limit for Football is "+TimeLimit+" minutes";
    }
}
```

OUTPUT:



```
        this.Name=Name;
        this.MaxNumPlayers=MaxNumPlayers;
    }
    public override string ToString(){
        return "Maximum number of players for "+Name+" is "
            +MaxNumPlayers;
    }
}

public class GameWithTimeLimit : Game{
    public int TimeLimit{set; get;}
    public GameWithTimeLimit(string Name,int MaxNumPlayers,int
        TimeLimit):base(Name,MaxNumPlayers){

        this.TimeLimit=TimeLimit;
    }
    public override string ToString(){
        return "Maximum number of players for "+Name+" is "
            +MaxNumPlayers+"\nTime Limit for Football is "+TimeLimit
            +" minutes";
    }
}
```

```
mono /tmp/3o9rIDeOFl.exe
Enter a game
cricket
Enter the maximum number of players
11
Enter a game that has time limit
football
Enter the maximum number of players
12
Enter the time limit in minutes
30
Maximum number of players for cricket is 11
Maximum number of players for football is 12
Time Limit for Football is 30 minutes

=== Code Execution Successful ===
```