

onlinegdb.com/online\_c\_compiler

Run Debug Stop Share Save Beautify Language C

enter the choice  
1  
enter an item to be entered  
2  
enter the choice  
1  
enter an item to be entered  
3  
enter the choice  
1  
enter an item to be entered  
4  
enter the choice  
1  
enter an item to be entered  
4  
stack overflow  
enter the choice  
3  
contents o the stack are:  
4  
3  
2  
enter the choice  
2  
item deleted is 4  
enter the choice  
3



LAB PROGRAM - 1.

Write a program to simulate the working of stack using an array with the following

- push

- pop

- display

The program should print appropriate messages for 'overflow' and 'underflow'

```
#include < stdio.h >
#include < conio.h >
#include < process.h > // stdlib.h
#define STACK_SIZE 5
```

```
int top = -1;
```

```
int s[10];
```

```
int item;
```

```
void push()
```

```
{
```

```
if (top == -1) // STACK_SIZE - 1)
```

```
{
```

```
printf("Overflow\n");
```

```
return;
```

```
top++;
```

```
s[top] = item;
```

```
}
```

```
int pop()
```

```
{
```

```
if (top == -1)
```

```
{
```

```
return -1;
```

```
}
```

```
return s[top--];
```

```
}
```

```
void display()
```

```
{ int i;  
    if (top == -1)
```

```
{ printf("empty\n");  
    return;
```

```
}  
printf("Contents of the stack are \n");  
for (i = 0; i <= top; i++)  
    printf("%d\t", s[i]);
```

```
}
```

```
void main()
```

```
{
```

```
    int item_deleted, choice;  
    scanf(" %d", &choice);  
    switch (choice)
```

```
{
```

```
    case 1: printf("Enter an item to be entered \n");  
        scanf(" %d", &item);  
        push();  
        break;
```

```
    case 2: item_deleted = pop();
```

```
        if (item_deleted == -1)  
            printf("underflow");
```

```
        else
```

```
            printf(" %d", item_deleted);
```

```
            break;
```

```
    case 3: display();
```

```
            break;
```

```
    default: exit(0);
```

```
? ?
```

## LAB PROGRAM - 2

```
import java.util.Scanner;  
class Student
```

{

```
    private int i, a;
```

```
    private int credits[] = new int[5];
```

```
    private int points[] = new int[5];
```

```
    private String name, vno;
```

```
    private double sgpa;
```

```
    private double marks[] = new double[5];
```

```
Student()
```

{

```
    usn = "1BM19CS001";
```

```
    name = "Aakash";
```

```
    for (int i = 0; i < 5; i++)
```

```
        marks[i] = 80;
```

```
        credits[i] = 4;
```

```
Student(double[] mark, int[] credit, String nam, String usn)
```

{

```
    this.marks = mark;
```

```
    this.credits = credit;
```

```
    name = nam;
```

```
    usn = usn;
```

{

```
void enter()
```

{

```
    System.out.println("Enter name and usn");
```

```
    Scanner s1 = new Scanner(System.in);
```

```
name = s1.next();  
usn = s1.next();  
for(i=0; i<=4; i++)
```

```
{ system.out.println("Enter marks for")
```

```
SUBJECT "+(i+1));
```

```
marks[i] = s1.nextInt();
```

```
system.out.println("Enter credit for")  
SUBJECT "+(i+1));
```

```
credits[i] = s1.nextInt();
```

```
}
```

```
{
```

```
void display()
```

```
{
```

```
system.out.println("Student details :");
```

```
system.out.println("NAME : " + name +  
" " + "USN : " + usn + " ");
```

```
for(i=0; i<=4; i++)
```

```
system.out.println("Marks for  
subject "+(i+1)+" is "+marks[i]);
```

```
system.out.println("The sgpa of "+name +  
" is "+(double)sgpa/a);
```

```
}
```

```
void calculate()
```

```
{
```

```
for(int i=0; i<5; i++)
```

```
{
```

```
if(marks[i]>100)
```

```
{
```

```
system.out.print("Error : ")
```

```
"Marks are above 100");
```

```
return;
```

```
}
```

```

else if (marks[i] >= 90)
    points[i] = 10;
else if (marks[i] >= 80)
    points[i] = 9;
else if (marks[i] >= 70)
    points[i] = 8;
else if (marks[i] >= 60)
    points[i] = 7;
else if (marks[i] >= 50)
    points[i] = 6;
else if (marks[i] >= 40)
    points[i] = 5;
else
    points[i] = 0;

```

$\text{sgpa} = \text{sgpa} + (\text{points}[i] * \text{credits}[i]);$   
 $a = a + \text{credits}[i];$

{ }

class Student1

{

```

public static void main (String args[])
{
    Student s1 = new Student();
    s1.enter();
    s1.calculate();
    s1.display();
}

```

$\text{double} [] \text{marks} = \text{new double} [7] \{ 66, 96, 82, 85, 40 \};$   
 $\text{int} [] \text{credits} = \text{new int} [7] \{ 3, 4, 4, 5, 4 \};$

$\text{Student} s2 = \text{new Student} (\text{marks}, \text{credits}, "Ishika", "IBM");$   
 $s2.calculate();$   
 $s2.display();$

{ }

```
G:\bin\Programs>java Student1
enter the name and usn of the student
Hriday 1bm19cs098
enter marks for SUBJECT1
78
enter credit of SUBJECT1
3
enter marks for SUBJECT2
96
enter credit of SUBJECT2
4
enter marks for SUBJECT3
85
enter credit of SUBJECT3
4
enter marks for SUBJECT4
67
enter credit of SUBJECT4
4
enter marks for SUBJECT5
82
enter credit of SUBJECT5
5
Student details:
NAME:Hriday USN:1bm19cs098
marks for subject 1is 78.0
marks for subject 2is 96.0
marks for subject 3is 85.0
marks for subject 4is 67.0
marks for subject 5is 82.0
The sgpa of Hridayis8.65
Student details:
NAME:Ishika Singhal USN:1BM19CS064
marks for subject 1is 66.0
marks for subject 2is 92.0
marks for subject 3is 88.0
marks for subject 4is 45.0
marks for subject 5is 78.0
The sgpa of Ishika Singhalis7.8
```

## LAB PROGRAM WEEK 3

```
import java.util.Scanner;  
class Book
```

```
{  
    String author, name;  
    int no;  
    double price;
```

```
Book (String author, String name, int no, double price)
```

```
{  
    this.author=author;  
    this.name=name;  
    this.no=no;  
    this.price=price;
```

```
}
```

```
Book ()
```

```
{  
}
```

```
void getdetails ()
```

```
{  
    System.out.println ("Enter the details of the  
book");  
    setdetails();
```

```
}
```

```
void setdetails ()
```

```
{  
    Scanner sc = new Scanner (System.in);  
    name = sc.nextLine();  
    author = sc.nextLine();  
    price = sc.nextDouble();  
    no = sc.nextInt();  
    price = sc.nextDouble();  
}
```

```
}
```

public String toString()

{

return ("Author : " + author +  
"Name : " + name +  
"No of pages : " + no +  
"Price : " + price);

}

}

public class BookMains

{

public static void main (String args [ ])

{

Book b = new Book();

Book b2 = new Book ("abc", "xyz", 34, 67);

Scanner x = new Scanner (System.in);

System.out.println ("Enter the no. of books");

int n = x.nextInt();

Book b1 [ ] = new Book [n];

for (int i = 0; i < n; i++)

{

b1 [i] = new Book();

b1 [i] = getDetails();

} System

for (i = 0; i < n; i++)

{

System.out.println (b1 [i]);

}

?

```
G:\bin\Programs>javac bookMains.java
G:\bin\Programs>java bookMains
Enter the number of books
2
enter the name of the book, author of the book, price of the book and the number of pages
abc
xyz
450
100
enter the name of the book, author of the book, price of the book and the number of pages
abc
xyt
800
300
AUTHOR: xyz NAME: abc NUMBER OF PAGES: 450 PRICE: 100.0
AUTHOR: xyt NAME: abc NUMBER OF PAGES: 800 PRICE: 300.0
G:\bin\Programs>
```

WEEK 4.

LAB 4.

abstract class shape

{

int side1, side2;

double area;

abstract void pointArea();

}

class Rectangle extends shape

{

Rectangle (int l, int b)

{

side1 = l;

side2 = b;

}

void pointArea()

{

area = side1 \* side2;

System.out.println ("Area of rectangle is : " + area);

}

}

class Circle extends shape

{

Circle (int r)

side1 = r;

void pointArea()

{

area = 3.14 \* side1 \* side1;

System.out.println ("Area of circle is : " + area);

}

}

class ShapeMain

{

public static void main( String args[] )

{

Rectangle rect = new Rectangle( 5, 6 );

rect. printArea();

Triangle tri = new Triangle( 10, 20 );

tri. printArea();

Circle cir = new Circle( 20 );

cir. printArea();

}

}

```
Microsoft Windows [Version 10.0.18362.959]
(c) 2019 Microsoft Corporation. All rights reserved.

G:\bin\Programs>javac Shapemain.java
'javac' is not recognized as an internal or external command,
operable program or batch file.

G:\bin\Programs>set path="g:/bin"
G:\bin\Programs>javac Shapemain.java
G:\bin\Programs>java Shapemain
Error: Could not find or load main class Shapemain
G:\bin\Programs> java ShapeMain
The area of the Rectagle is: 30.0
The Area of the triangle is: 20.0
The Area of the Circle is: 314.0
```

456  
This Account is a Current Account.  
Warning: A minimum of 5000 balance must be maintained  
If failed, a penalty of Rs.100 will be imposed.  
Enter the Amount to be withdrawn:  
2300  
The balance is less than 5000 a penalty of Rs.100 is imposed.  
Welcome to the bank.  
  
Enter the action to be performed:  
1: Create a Savings Account  
2: Create a Current Account  
3: Deposite  
4: Withdraw  
5:Display Balance  
Enter your choice: 5  
Enter the account number:  
123  
The Account Details are given as follows:  
Name: Ishika  
Account Number: 123  
Account Type: Savings Account  
Balance: 3183.399999999996  
Welcome to the bank.  
  
Enter the action to be performed:  
1: Create a Savings Account  
2: Create a Current Account  
3: Deposite  
4: Withdraw  
5:Display Balance  
Enter your choice: 5  
Enter the account number:  
456  
The Account Details are given as follows:  
Name: Hriday  
Account Number: 456  
Account Type: Current Account  
Balance: 4100.0  
Welcome to the bank.

```
G:\bin\Programs>javac Bank.java
G:\bin\Programs>java Bank
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
Enter your choice: 1
Enter the Details of the new account:
Name: Ishika
Ideal Account number: 123
Enter the first Deposite Value: 4000
Thank you for creating an Account.
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
Enter your choice: 2
Enter the Details of the new account:
Name: Hriday
Ideal Account number: 456
Enter the first Deposite Value(above 5000):
6500
Thank you for creating an Account.
You will shortly receive your Cheque Book.
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
```

```
Enter your choice: 3
Enter the account number:
123
This Account is a Savings Account.
Enter the Amount to be Deposited:
340
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
Enter your choice: 4
Enter the account number:
123
This Account is a Savings Account.
Enter the Amount to be withdrawn:
1200
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
2: Create a Current Account
3: Deposite
4: Withdraw
5:Display Balance
Enter your choice: 4
Enter the account number:
456
This Account is a Current Account.
Warning: A minimum of 5000 balance must be maintained
If failed, a penalty of Rs.100 will be imposed.
Enter the Amount to be withdrawn:
2300
The balance is less than 5000 a penalty of Rs.100 is imposed.
Welcome to the bank.

Enter the action to be performed:
1: Create a Savings Account
```

```
Enter the action to be performed:  
1: Create a Savings Account  
2: Create a Current Account  
3: Deposite  
4: Withdraw  
5:Display Balance  
Enter your choice: 5  
Enter the account number:  
123  
The Account Details are given as follows:  
Name: Ishika  
Account Number: 123  
Account Type: Savings Account  
Balance: 3183.399999999996  
Welcome to the bank.  
  
Enter the action to be performed:  
1: Create a Savings Account  
2: Create a Current Account  
3: Deposite  
4: Withdraw  
5:Display Balance  
Enter your choice: 5  
Enter the account number:  
456  
The Account Details are given as follows:  
Name: Hriday  
Account Number: 456  
Account Type: Current Account  
Balance: 4100.0  
Welcome to the bank.  
  
Enter the action to be performed:  
1: Create a Savings Account  
2: Create a Current Account  
3: Deposite  
4: Withdraw  
5:Display Balance  
Enter your choice: 8  
Welcome to the bank.
```

## DEF LAB 5

```
import java.util.Scanner;
```

```
class Account
```

```
{
```

```
    Scanner sc = new Scanner(System.in);
```

```
    String acc_name;
```

```
    String acc_no;
```

```
    int acc_type;
```

```
    double balance;
```

```
    void createAccount()
```

```
{
```

```
    System.out.println("Enter the details of new  
    account");
```

```
    System.out.println("Name:");
```

```
    acc_name = sc.next();
```

```
    System.out.println("Account no: ");
```

```
    acc_no = sc.next();
```

```
    if (acc_type == 1)
```

```
{
```

```
    System.out.println("Enter deposit value");
```

```
    balance = sc.nextDouble();
```

```
}
```

else

{

System.out.println("Enter deposit value (more than 5000)");  
balance = sc.nextDouble();

}

{

String getAccountNo()

{

String return acc-no;

}

void display()

{

System.out.println(acc-name);

System.out.println(acc-no);

System.out.println(balance);

}

class Sav\_acc extends Account

{

void withdraw()

{

double amount;

System.out.println("Amount to be withdrawn");

amount = ss.nextDouble();

balance -= amount;

}

void deposit()

{

double amount, interest;

System.out.println("Enter amount to be deposited");

amount = sc.nextDouble();

balance += amount;

interest = balance \* 0.01;

}

{

class curr\_acct extends account

{

void withdraw()

{

double amount;

amount = sc.nextDouble();

balance -= amount;

penaltyCheck();

}

void deposit()

{

double amount;

System.out.println("Enter the amount to  
be deposited");

amount = sc.nextDouble();

}

void penaltycheck()

{

f(balance < 5000)

{

balance = balance - 100;

}

}

class Bank

{

public static void main(String args[])

{

SavAcct s[] = new SavAcct[10];

currAcct c[] = new currAcct[5];

Scanner ss = new Scanner(System.in);

String accno;

int chg i=0, j=0;

while (true)

{

System.out.print("Enter choice");  
ch = ss.nextInt();

switch(ch)

{

case 1: S[i] = new Sav\_Acc();  
S[i].acc-type = 1;  
i++;

break;

case 2: C[j] = new Cus\_Acc();  
S[C[j]].acc-type = 0;  
j++;

break;

case 3: System.out.println("Enter account no");  
acctno = ss.nextInt();

for (int k=0; k<j; k++)

{

if (acctno.equals(C\_acc[k].getAccountNo()))

{

C\_acc[k].deposit();

}

else

for (int k=0; k<i; k++)

{

if (acctno.equals(S[k].getAcc-  
ountNo()))

S[k].deposit();

}

break;

```
case 4: System.out.println("Enter account no.");
    accno = ss.nextInt();
    for (int k = 0; k < j; k++)
    {
        if (accno.equals(C[k].getAccountNo()))
            break;
    }
```

```
{ C[k].withdraw(); }
```

```
for (int k = 0; k < i; k++)
{
    if (accno.equals(S[k].getAccountNo()))
        S[k].withdraw();
}
```

```
break;
```

```
case 5: System.out.println("Enter account no : ");
    accno = ss.nextInt();
    for (int k = 0; k < j; k++)
    {
        if (accno.equals(C[k].getAccountNo()))
            C[k].display();
    }
```

```
for (int k = 0; k < i; k++)
{
    if (accno.equals(S[k].getAccountNo()))
        S[k].display();
}
```

```
break;
```

## WEEK 10 LAB PROGRAM 8.

```
import java.util.*;
```

class AgeException extends Exception

```
{ public String toString ()
```

```
    return "Age of father less";
```

class Father

```
{
```

```
    public Scanner ss = new Scanner (System.in);
```

```
    int father_age;
```

```
    Father ()
```

```
{
```

```
    father_age = ss.nextInt();
```

```
}
```

class Son extends Father

```
{
```

```
    int son_age;
```

```
    Son () {
```

```
        son_age = ss.nextInt();
```

```
}
```

```
class Main
{
    static void WrongAge (int fage, int sage)
    {
        if (fage < sage)
            throw new AgeException ();
    }

    public static void main (String args [])
    {
        Son sn = new Son ();
        try
        {
            WrongAge (sn.father.age, sn.son.age);
        }
        catch (AgeException e)
        {
            System.out.println ("Exception");
        }
    }
}
```

The screenshot shows the Visual Studio Code interface with the following details:

- EXPLORER**: Shows files in the workspace, including `Internals.java`, `main.java`, `Student.java`, `SEE`, `FamilyMain`, and `main.java`.
- OPEN EDITORS**: Displays two tabs: `FamilyMain` and `main.java`.
- PROGRAMS JAVA**: A tree view showing `CIE` and its subfiles: `Internals.java`, `main.java`, `Student.java`, and `SEE`.
- TERMINAL**: Shows the output of a Java program execution. The terminal window title is "1: Java Debug Console". The output text is:

```
The Value of Age is: 49
The Value of Name is: Elon Musk
PS G:\bin\programs java>
PS G:\bin\programs java>
PS G:\bin\programs java> cd 'g:\bin\programs java'; & 'c:\Users\hp\.vscode\extensions\vscodejava.vscode-java-debug-0.29.0\scripts\launcher.bat' 'C:\Program Files\AdoptOpenJDK\jdk-11.0.9.11-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\52609d74f618f292e8a3b14e2f3022b4\redhat.java\jdt_ws\programs java_b548dbe\bin' 'FamilyMain'
Enter the Age of the Father:
30
Enter the Age of the Son:
23
There were no other problems arised during execution
The age of the Father is: 30
The age of the Son is: 23
PS G:\bin\programs java>
PS G:\bin\programs java>
```
- OUTLINE**: Shows the project structure.
- NPM SCRIPTS**: Shows available scripts.
- JAVA PROJECTS**: Shows the Java projects.
- MAVEN**: Shows the Maven settings.

## WEEK 11 LAB PROGRAM 9.

class ~~new~~ ThreadDemo implements Runnable

{

    Thread t;

    String name;

    long time;

~~new~~ ThreadDemo (String name, long time)

{

        time = this.time;

        name = this.name;

        t = new Thread(this, name);

        t.start();

}

    public void run()

{

        try

{

            for (int n=10; n>0; n--)

{

                Thread.sleep(time);

}

}

            catch (InterruptedException ie)

                System.out.print("Exception: child");

}

}

```
class main
{
    public static void main (String args[])
    {
        ThreadDemo n1 = new ThreadDemo
        ("BMS College of Engineering");
        ThreadDemo n2 = new ThreadDemo
        ("CSE");
    }
}
```

The screenshot shows the Visual Studio Code interface with the following details:

- EXPLORER**: Shows a file tree with several Java files: Internals.java, main.java, Student.java, SEE, Father.java, main.java, studentMain.java, ThreadDemo.java, ThreadsExtra1.java, ThreadsExtra2.java, and TotalMarks.java.
- OPEN EDITORS**: Shows multiple tabs: Father.java, ThreadsExtra1.java, ThreadsExtra2.java, ThreadDemo.java (active), and main.java.
- PROGRAMS JAVA**: A dropdown menu showing CIE, Internals.java, main.java, Student.java, SEE, Father.java, main.java, studentMain.java, ThreadDemo.java (highlighted), ThreadsExtra1.java, ThreadsExtra2.java, and TotalMarks.java.
- TERMINAL**: Displays the output of a Java application. The application prints:
  - The Random number is: 33
  - The Cube of the number is: 35937
  - The Random number is: 12
  - The Square of the number is: 144
  - BMS College of Engineering.
  - CSE
  - CSE
  - CSE
  - CSE
  - CSE
  - CSE
  - BMS College of Engineering.
  - CSE
  - CSE
  - CSE
  - CSE
  - CSE
  - BMS College of Engineering.
  - Child Thread Quitting.....
  - BMS College of Engineering.
  - Child Thread Quitting.....
- PROBLEMS**: Shows 21 errors.
- OUTPUT**: Shows standard output.
- DEBUG CONSOLE**: Shows standard error.
- Java Debug Console**: Shows a single entry: 1: Java Debug Console.

## WEEK 12 E-LAB PROGRAM 10.

```
import java.awt.*;
import java.awt.event.*;
```

```
class NumException extends Exception
```

{

```
    public String toString()
        return "Arithmetic exception.";
```

}

```
class FormatException extends Exception
```

{

```
    public String toString()
        return "Format exception.";
```

}

```
public class divi extends Frame implements
ActionListener
```

{

```
    JTextField num1, num2;
```

```
    Button div;
```

```
    double result;
```

```
    String msg = "Result: ";
```

```
    public divi()
```

```
{  
    setLayout (new FlowLayout ());
```

```
    label num1n = new JLabel ("Numerator:", label, ,  
    label num2n = new JLabel ("Denominator:", ,  
    label. RIGHT);
```

```
    Button div = new Button ("Divide");
```

```
    num1 = new JTextField (5);
```

```
    num2 = new JTextField (5);
```

```
    add (num1);
```

```
    add (num1);
```

```
    add (num2);
```

```
    add (num2);
```

```
    add (div);
```

```
    num1.addActionListener (this);
```

```
    num2.addActionListener (this);
```

```
    div.addActionListener (this);
```

public boolean isDouble (double no)

{

    double d;

    d = no - int(no);

    if (d == 0.0)

        return false;

    else

        return true;

}

public double divide (double a, double b)

{

    if (b == 0.0)

        throw new NullPointerException();

    else if (!isDouble(a) || !isDouble(b))

        throw new FormatException();

    else

        return (double) a/b;

}

public void actionPerformed (ActionEvent ae)

{

    double a, b;

    a = Double.parseDouble (num1.  
                          getText());

```
b = double.parseDouble(num2.getText());
```

```
try {
```

```
    result = divide(a, b);
```

```
    msg = ("The result is " + result);
```

```
}
```

```
catch (NumberFormatException ne)
```

```
    msg = ne.toString();
```

```
catch (FormatException fe)
```

```
    msg = fe.toString();
```

```
    repaint();
```

```
}
```

```
public void paint(Graphics g)
```

```
    g.drawString(msg, 50, 150);
```

```
public static void main(String args[])
```

```
{
```

```
    divide aa = new divide();
```

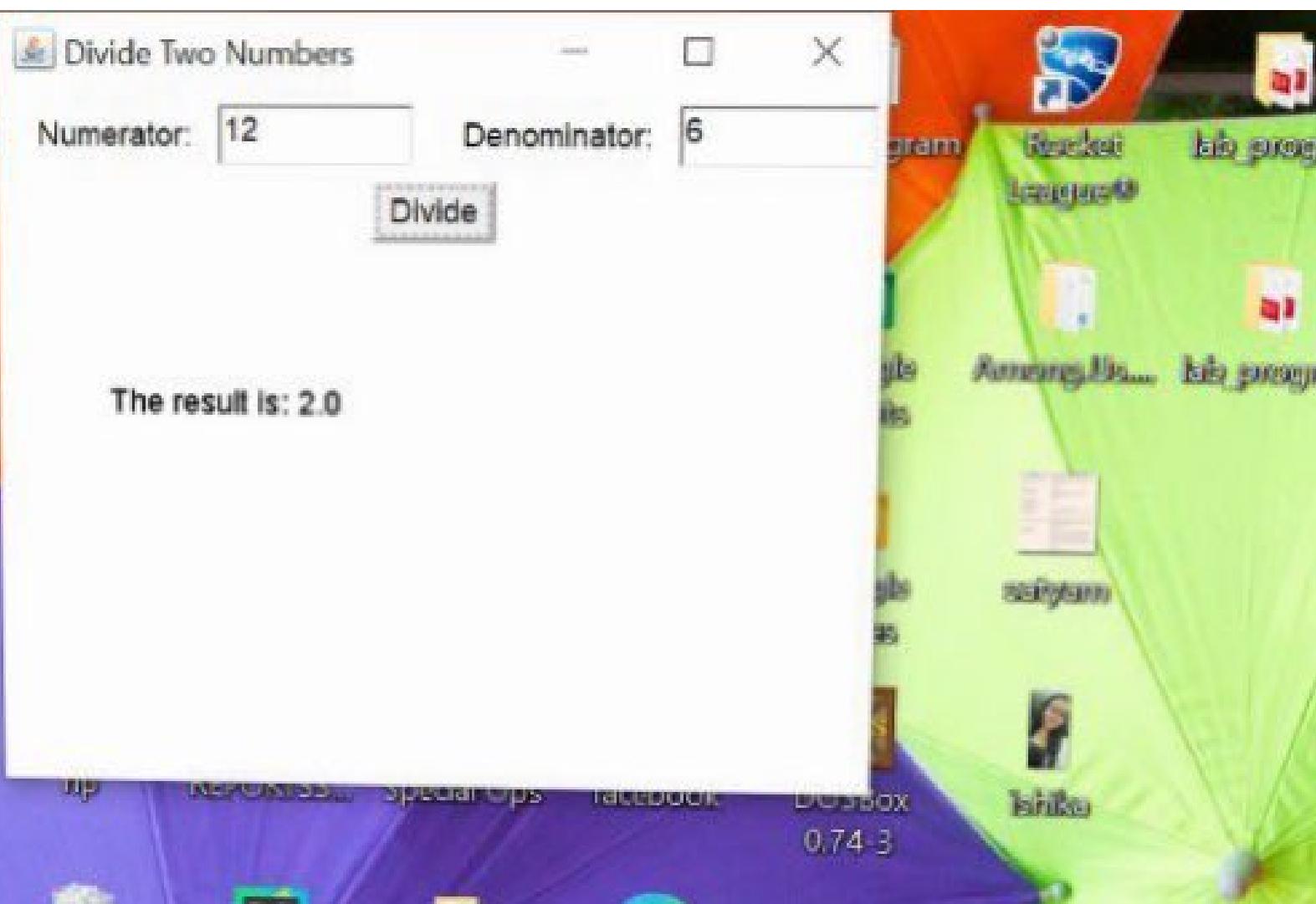
```
    aa.setSize(new Dimension(350, 300));
```

```
    aa.setTitle("Divide 2 nos");
```

```
    aa.setVisible(true);
```

```
}
```

```
}
```



## WEEK 10 LAB PROGRAM 7.

```
import java.util.Scanner;
```

```
class Demo<T,S>
```

```
{
```

```
    T m1;
```

```
    S m2;
```

```
Demo<T m1, S m2>
```

```
{
```

```
    this.m1 = m1;
```

```
    this.m2 = m2;
```

```
}
```

```
public void display()
```

```
{
```

```
    System.out.println("The value of " +  
        this.m1 + " is " + this.m2);
```

```
}
```

```
}
```

```
class DemoMain
```

```
{
```

```
    public static void main(String args[])
```

```
{
```

```
Footer demo < string, string > std1 = new  
demo < string, string > ("Name", "Ishika");  
std1. display();
```

{

{

A screenshot of the Visual Studio Code (VS Code) interface. The top navigation bar shows 'RUN' and 'Run and Debug'. The main workspace shows a file named 'main.java' with the following code:

```
① main.java X
② main.java > FamousMain > main(String[])
  1 import java.util.Scanner;
```

The 'Run and Debug' section contains the following text:

To customize Run and Debug [create a launch.json file](#).

Show all automatic debug configurations.

The 'TERMINAL' tab is active, showing the output of a Java application run:

```
TERMINAL PROBLEMS 18 OUTPUT DEBUG CONSOLE 1: Java Debug Console + × ^ ×
```

```
The Value of Age is: 49
PS G:\bin\programs java> cd 'g:\bin\programs java'; & 'c:\Users\hp\.vscode\extensions\vscjava.vscode-java-debug-0.29.0\scripts\launcher.bat' 'C:\Program Files\AdoptOpenJDK\jdk-11.0.9.11-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'c:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\52609d74f618f292e0a3b14e2f3022b4\redhat.java\jdt_ws\programs\java_b548dbef\bin' 'FamousMain'
The Value of Name is: Elon Musk
PS G:\bin\programs java>
PS G:\bin\programs java>
PS G:\bin\programs java>
```

Screen Reader Optimized | In 24, Col 29 | Spaces: 4 | UTF-8 | CRLF | Java | JavaSE-11 | ⚡ | 🔍 | 🌐

## WEEK 9 LAB PROGRAM 6.

```
package CIE;
import java.util.Scanner;
public class Internals extends Student
{
    public int CIE_marks [ ] = new int [ 5 ];
    public void getmarks ()
    {
        getdata();
        System.out.println("Enter CIE marks");
        for ( i = 0; i < 5; i++ )
        {
            CIE_marks [ i ] = ss.nextInt();
        }
    }
    void display()
    {
        System.out.println("Name : " + this.name);
        System.out.println("USN : " + this.usn);
        System.out.println("Semester : " + this.sem);
    }
}
```

```
package CIE;  
import java.util.Scanner;  
public class Student  
{  
    public String USN, name;  
    public int sem;  
    public Scanner ss = new Scanner (System.in);  
    public void getdata()  
    {  
        System.out.println("Enter USN: ");  
        USN = ss.nextLine();  
        System.out.println("Enter Name: ");  
        name = ss.nextLine();  
        System.out.println("Enter Semester: ");  
        sem = ss.nextInt();  
    }  
    public void display()  
    {  
        System.out.println("USN: " + USN);  
        System.out.println("Name: " + name);  
        System.out.println("Semester: " + sem);  
    }  
}
```

```
System.out.println("Name : ");  
name = ss.next();
```

```
system.out.println("USN:");  
usn=ss.nextInt();
```

```
System.out.println("Scored : ");  
score = ss.nextInt();
```

```
package SEE;  
import java.util.Scanner;  
public class External extends CIE.Student  
{
```

```
public int scanner[] = new int[5];  
Scanner s = new Scanner(System.in);
```

```
public void getmarks()
```

{

```
    System.out.println("Enter SEE marks");
```

```
    for(i=0;i<5;i++)
```

{

```
        seemarks[i]=sc.nextInt();
```

{

{

```
    finalmarks[i]=((seemarks[i]+5)/2);
```

```
    System.out.println("Final marks are ");
```

```
import java.util.Scanner;
```

```
import CIE.*;
```

```
import SEE.*;
```

```
class Main
```

{

```
    public static void main(String args[])
```

{

```
        Scanner ss=new Scanner(System.in);
```

```
        int n;
```

```
        int finalmarks[5][ ]=new int[5][5];
```

```
        System.out.println("Enter no. of students");
```

```
        n=ss.nextInt();
```

```
        Internals stdicte[ ]=new Internals[n];
```

```
        Externals stdicce[ ]=new Externals[n];
```

```

for (int i=0; i<n; i++)
{
    studie[i] = new Internals();
    studee[i] = new Externals();
    studie[i].getmarks();
    studee[i].getmarks();
    for (int j=0; j<5; j++)
    {
        finalmarks[i][j] = studie[i] +
            ciemarks[j] + (studie[i].seemarks[j]
                / 2);
    }
}
for (int i=0; i<n; i++)
{
    studie[i].display();
    for (int j=0; j<5; j++)
    {
        System.out.println("finalmarks
            [i][j];");
    }
}

```

## WEEK 10 LAB PROGRAM 7.

```
import java.util.Scanner;
```

```
class Demo<T,S>
```

```
{
```

```
T m1;
```

```
S m2;
```

```
Demo<T m1, S m2>
```

```
{
```

```
this.m1 = m1;
```

```
this.m2 = m2;
```

```
}
```

```
public void display()
```

```
{
```

```
System.out.println("The value of "+  
this.m1 + " is " + this.m2);
```

```
}
```

```
}
```

```
class DemoMain
```

```
{
```

```
public static void main(String args[])
```

```
{
```

```

for demo < string, string> std1 = new
    demo < string, string > ("Name", "Ishika");
    std1. display();
}
}

```

(Guru Nanak Dev)

Alka = Alka.200

Guru = Guru.200

o C program for reading

{  
}

multiple line

o C program for reading

{  
}



```
Internals.java Student.java Externals.java Main.java
G: > bin > Main.java > ...
1 import java.util.Scanner;
TERMINAL PROBLEMS 5 OUTPUT DEBUG CONSOLE 1: Java Process Console +
*****  
Name:  
ishikja  
USN:  
087  
Semester:  
2  
Enter the CIE marks of the Student:  
Subject 1 :34  
Subject 2 :35  
Subject 3 :36  
Subject 4 :37  
Subject 5 :38  
Enter the SEE marks of the Student:  
Subject 1 :89  
Subject 2 :89  
Subject 3 :89  
Subject 4 :89  
Subject 5 :89  
*****  
The Students and their finals marks are:  
Name: ishika  
USN: 064  
Semester: 2  
Subject 1 :40  
Subject 2 :106  
Subject 3 :99
```

The Students and their finals marks are:

```
Name: ishika
USN: 064
Semester: 2
Subject 1 :40
Subject 2 :106
Subject 3 :99
Subject 4 :56
Subject 5 :62
```

```
Name: ishikja
USN: 087
Semester: 2
Subject 1 :78
Subject 2 :79
Subject 3 :80
Subject 4 :81
Subject 5 :82
```

```
PS C:\Users\hp>
PS C:\Users\hp>
PS C:\Users\hp> cd 'g:\bin\programs\java'; & 'c:\Users\hp\vscode\extensions\vscode-java.vscode-java-debug-0.29.0\scripts\launcher.bat' 'C:\Program Files\AdoptOpenJDK\jdk-11.0.9.11-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\hp\AppData\Roaming\Code\User\workspaceStorage\52609d74f618f292e0a3b14e2f3022b4\redhat.java\jdt_wsl\programs\java_b548dbef\bin' 'ButtonList'
```