



A

Journal on

JAVA PROGRAMMING

Submitted

for

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Submitted To

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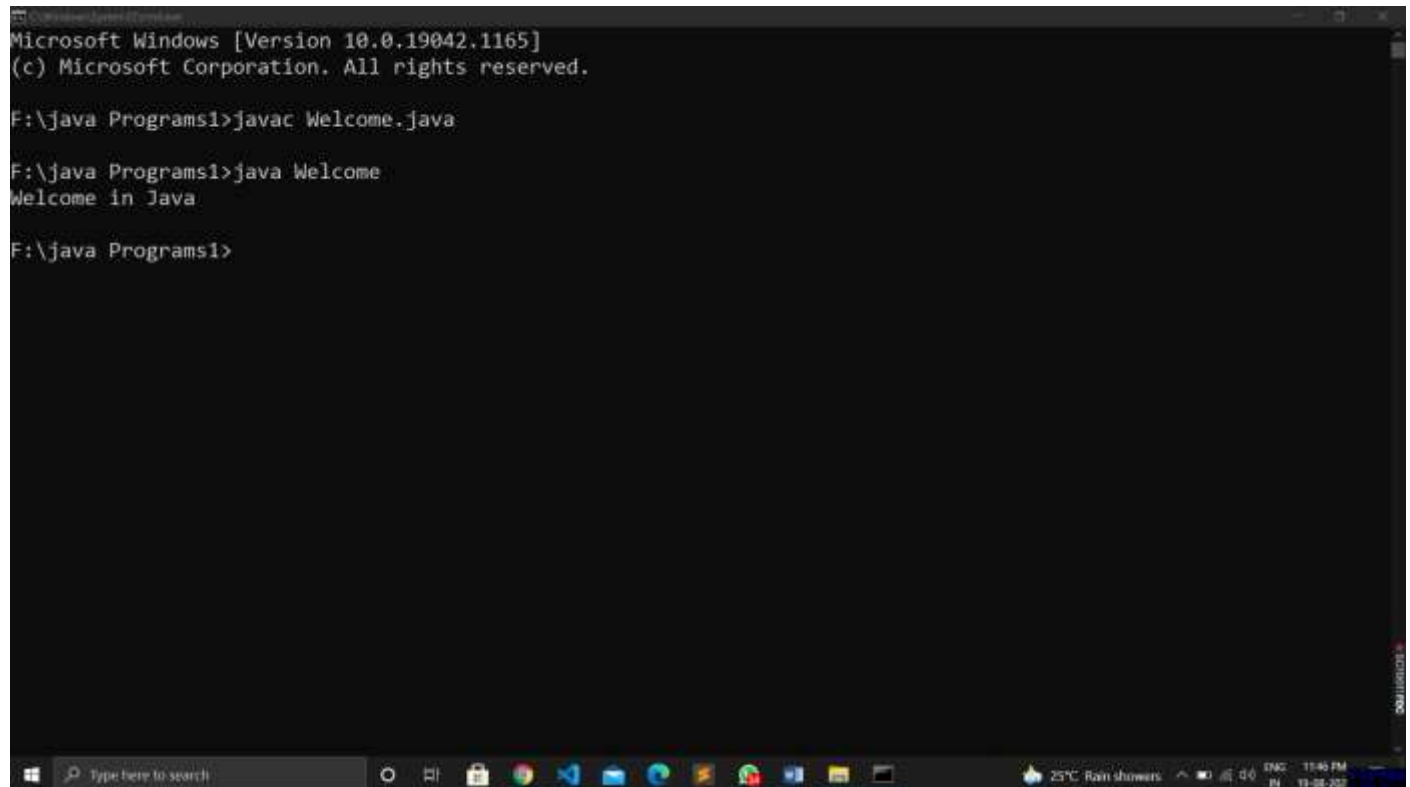
PRN NO:2020080563

1. Write a program in java that displays Welcome in java.

Input Code:

```
class Welcome{  
    public static void main(String[] args){  
        System.out.println("Welcome in Java");  
    }  
}
```

Output:



The screenshot shows a Windows command prompt window with the following text:

```
Microsoft Windows [Version 10.0.19042.1165]  
(c) Microsoft Corporation. All rights reserved.  
  
F:\java Programs1>javac Welcome.java  
  
F:\java Programs1>java Welcome  
Welcome in Java  
  
F:\java Programs1>
```

The window title is "C:\Windows\System32\cmd.exe". The taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray on the right indicates a temperature of 25°C, rain showers, and the time 11:45 PM on 19-08-2022.

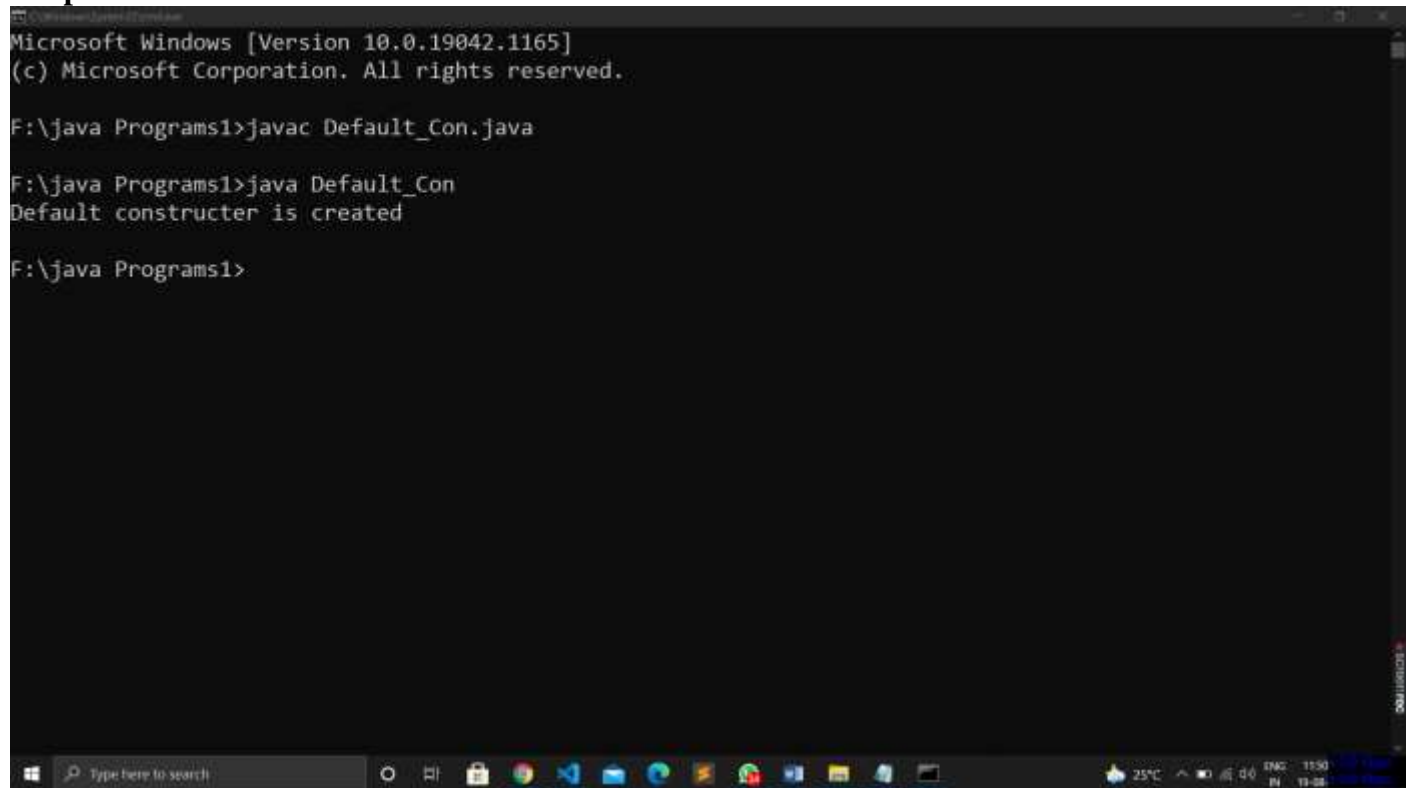
2. Write a program in java that demonstrate the constructor i) default ii) parameterized constructor

i) default constructor

Input Code:

```
class Default_Con{  
  
void display(){System.out.println("Default constructor is created");}  
  
public static void main(String args[]){  
  
Default_Con s1=new Default_Con();  
  
s1.display();  
}  
}
```

Output:



```
Microsoft Windows [Version 10.0.19042.1165]  
(c) Microsoft Corporation. All rights reserved.  
  
F:\java Programs1>javac Default_Con.java  
  
F:\java Programs1>java Default_Con  
Default constructor is created  
  
F:\java Programs1>
```

ii) parameterized constructor

Input Code:

```
class para_Con{  
  
int id;  
String name;  
  
Student4(int i,String n){  
  
id = i;  
  
name = n;
```

```
}
```

```
void display(){System.out.println(id+" "+name);}
```

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

```
Student4 s1 = new Student4(111,"Aniket");
```

```
Student4 s2 = new Student4(222,"Abhinandan");
```

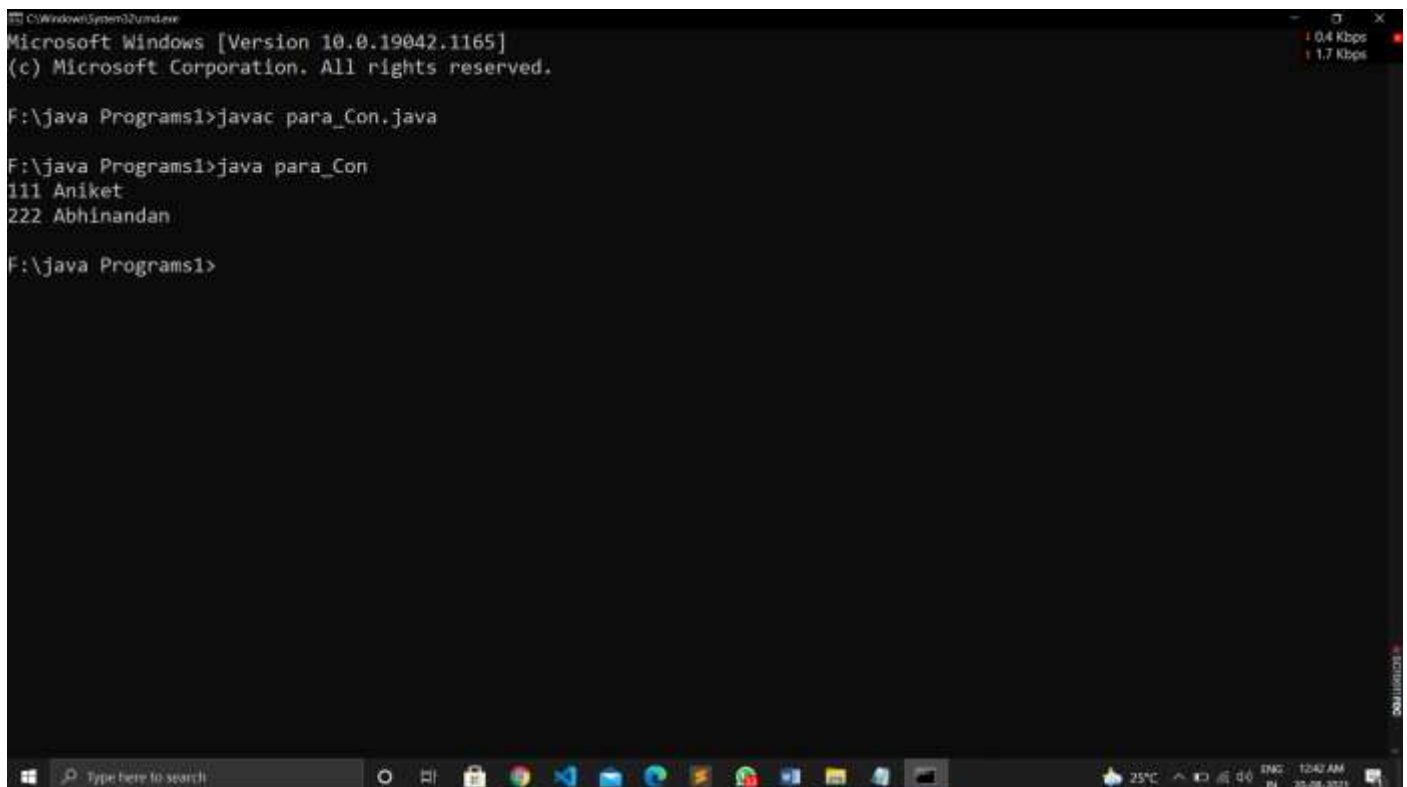
```
s1.display();
```

```
s2.display();
```

```
}
```

```
}
```

Output:



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac para_Con.java

F:\java Programs1>java para_Con
111 Aniket
222 Abhinandan

F:\java Programs1>
```

3. . Write a program in java that demonstrate the constructor i) default ii) parameterized constru

Input Code:

```
import java.util.Scanner;

class SimpleInterest{

    public static void main(String[] args){

        Scanner sc = new Scanner(System.in);

        double SI, p,n,r;

        System.out.println("Enter Price");

        p = sc.nextDouble();

        System.out.println("Enter Number of Years");

        n = sc.nextDouble();

        System.out.println("ENter Rate");

        r = sc.nextDouble();

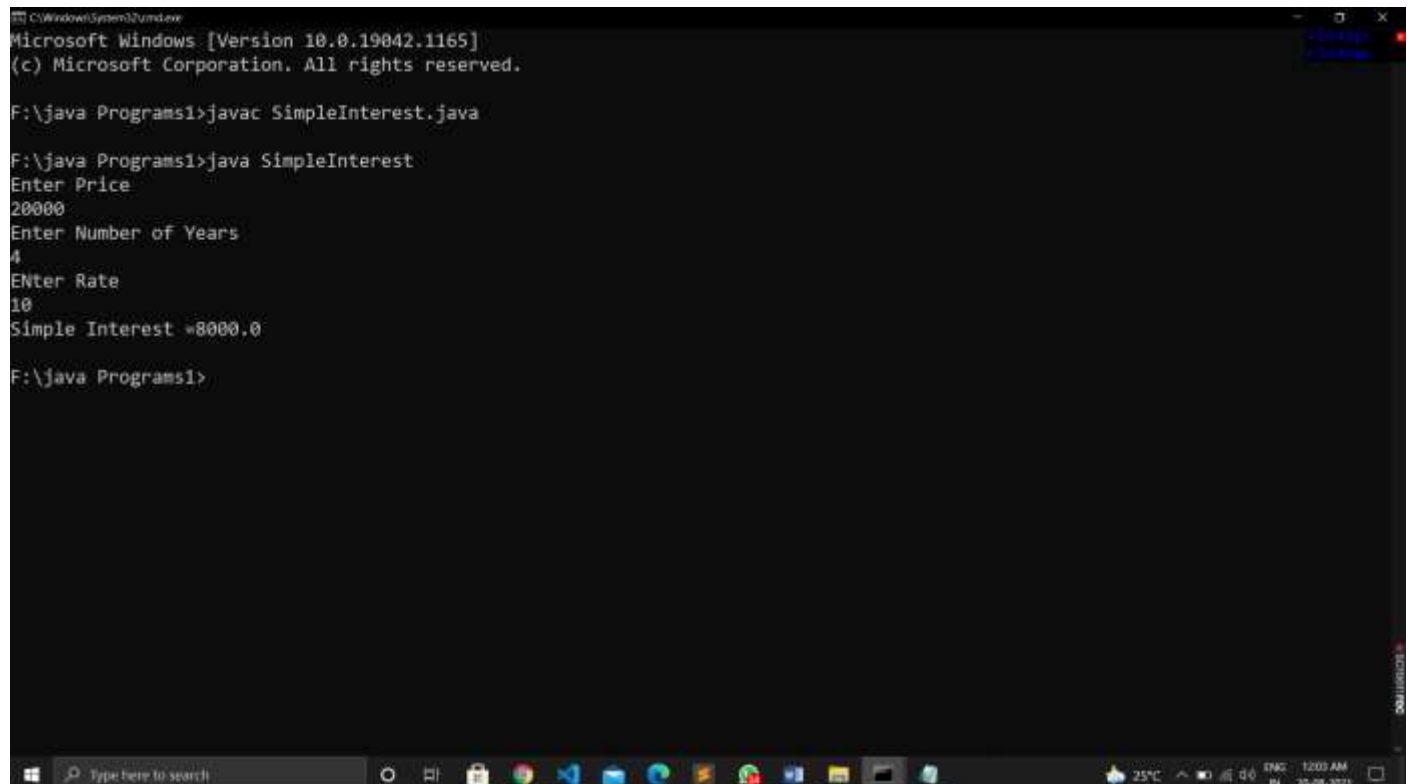
        SI = (p*n*r)/100;

        System.out.println("Simple Interest =" + SI);

    }

}
```

Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac SimpleInterest.java

F:\java Programs1>java SimpleInterest
Enter Price
20000
Enter Number of Years
4
ENTER Rate
10
Simple Interest =8000.0

F:\java Programs1>
```

4. Write a program to find the average & the sum of the 'n' number using user input.

Input Code:

```
import static java.lang.Float.sum;

import java.util.Scanner;

class Average {

    public static void main(String[] args)

    {

        int n, count = 1;

        float Number, averageN, sumN = 0;

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the value of n");

        n = sc.nextInt();

        while (count <= n)

        {

            System.out.println("Enter the "+count+" number?");

            Number = sc.nextInt();

            sumN += Number;

            ++count;

        }

        averageN = sumN/n;

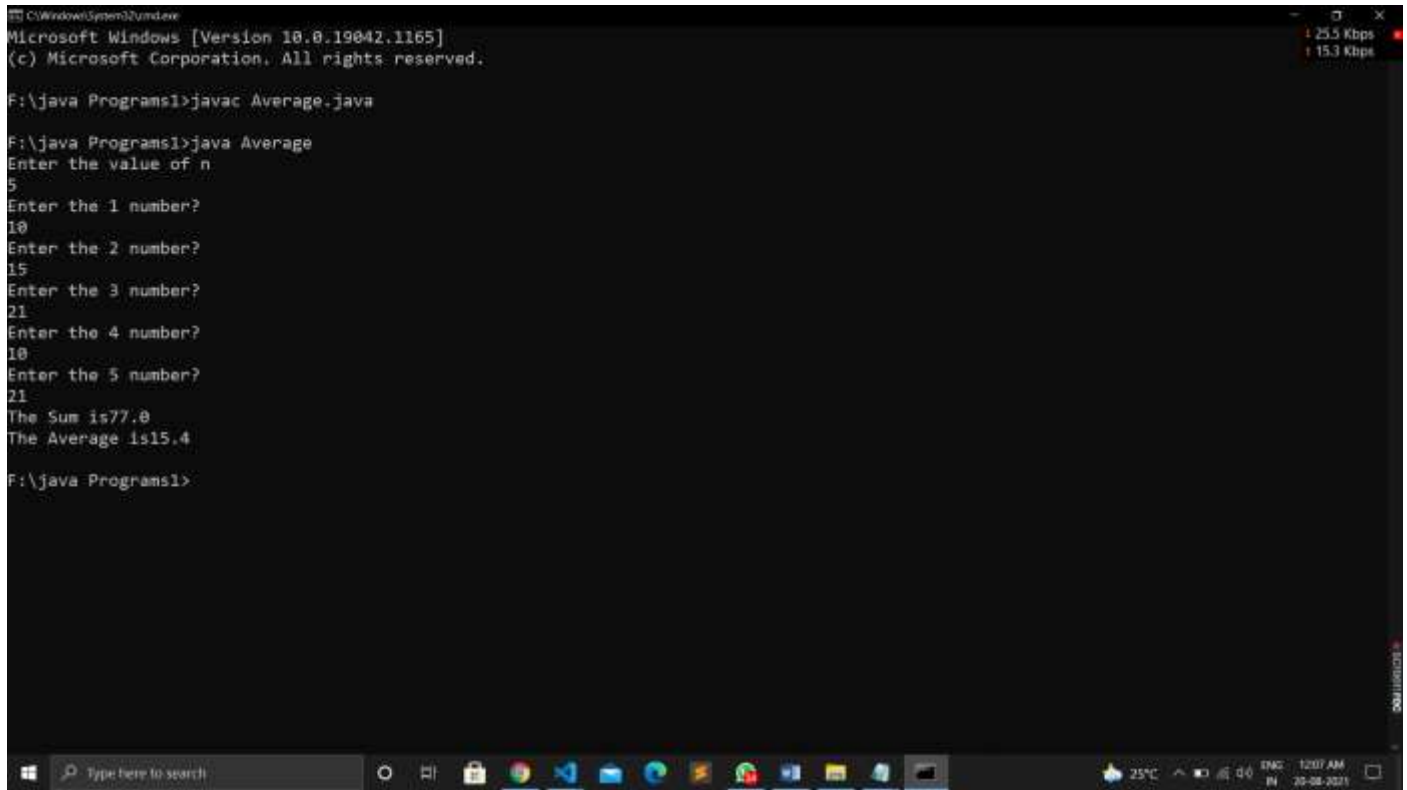
        System.out.println("The Sum is"+sumN);

        System.out.println("The Average is"+averageN);

    }

}
```

Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac Average.java

F:\java Programs1>java Average
Enter the value of n
5
Enter the 1 number?
10
Enter the 2 number?
15
Enter the 3 number?
21
Enter the 4 number?
10
Enter the 5 number?
21
The Sum is77.0
The Average is15.4

F:\java Programs1>
```

5. Write a program to create a simple class to findout area & perimeter of rectangle & boxes.

Input:

```
class Shape{
    float area,perimeter;

    void area(float length,float breadth){
        this.area=length*breadth;
    }

    void perimeter(float length,float breadth){
        this.perimeter=2*(length+breadth);
    }
}

class Rectangle extends Shape{

    void parameters(float length,float breadth,float perimeter){

        super.area(length,breadth);
        super.perimeter (length,breadth);
        System.out.println("Area of this rectangle is "+super.area);
        System.out.println("Perimeter of this rectangle is "+super.perimeter);
    }

}

class Shape2{
    float area,perimeter;
```

```

//2*(l*w + l*h + w*h).
void area(float length,float width,float height){
this.area=2*((length*width)+(length*width)+(width*height));
}

void perimeter(float length,float width,float height){
this.perimeter=4*(length+width+height);
}
}
class Abox extends Shape2{

void parameters(float length,float width,float height){

super.area(length,width,height);
super.perimeter (length,width,height);
System.out.println("Area of this box is "+super.area);
System.out.println("Perimeter of this box is "+super.perimeter);
}

}
}
class ShapeSuper1{
public static void main(String args[]){
Rectangle r1=new Rectangle();
Abox r2=new Abox();

r1.parameters(10.5f,11.5f,44f);
r2.parameters(10f,11.5f,44f);

}
}
}

```

Output:

```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac ShapeSuper1.java

F:\java Programs1>java ShapeSuper1
Area of this rectangle is 120.75
Perimeter of this rectangle is 44.0
Area of this box is 1472.0
Perimeter of this box is 262.0

F:\java Programs1>

```


6. Write a program to design a class using abstract method & classes.

Input:

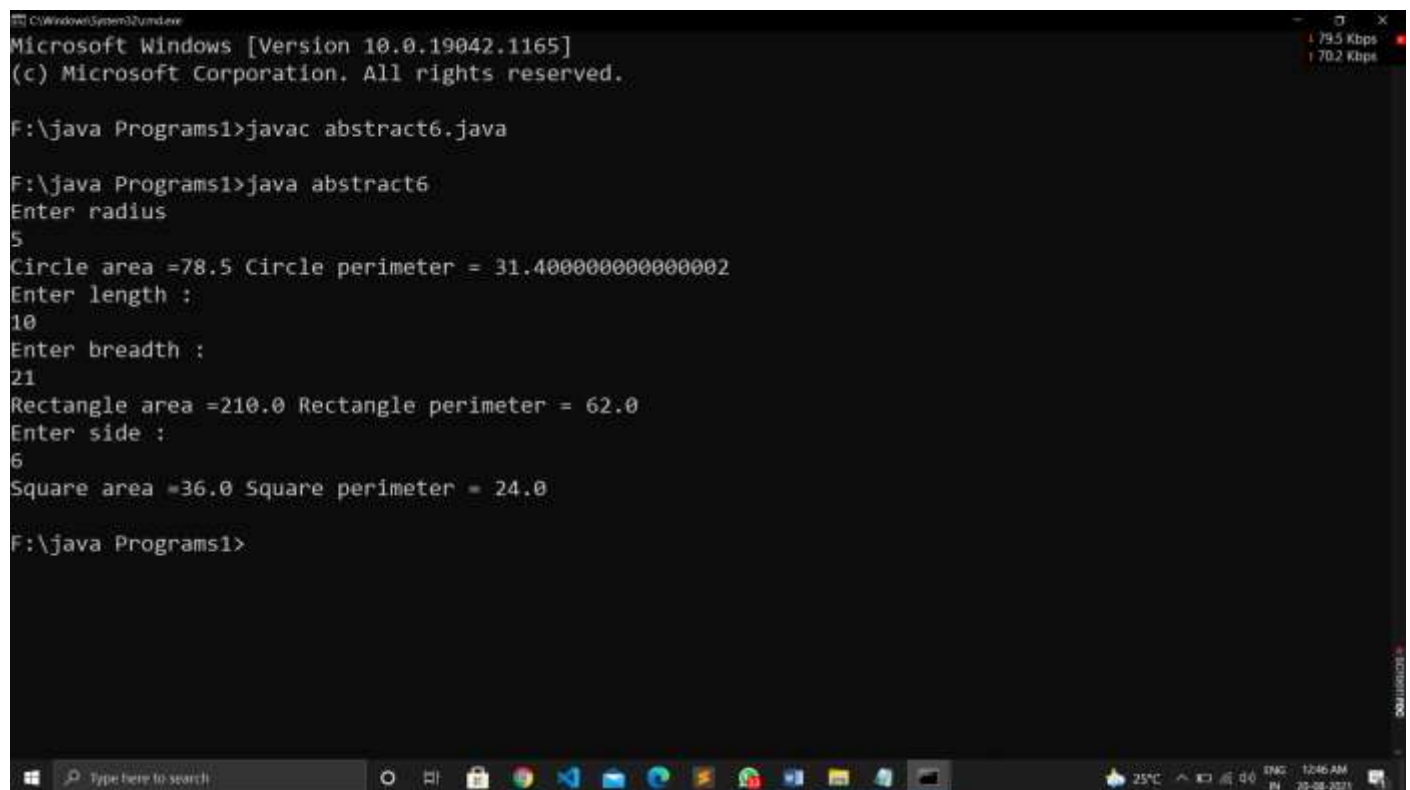
```
import java.util.Scanner;
abstract class Shape{
    abstract public void input();
    abstract public double area();
    abstract public double perimeter();
}
class circle extends Shape{
    double r;
    public void input(){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter radius");
        r = sc.nextDouble();
    }
    public double area(){
        return 3.14*r*r;
    }
    public double perimeter(){
        return 3.14*2*r;
    }
}
class rect extends Shape{
    double l,b;
    public void input(){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter length :");
        l = sc.nextDouble();
        System.out.println("Enter breadth :");
        b = sc.nextDouble();
    }
    public double area(){
        return l*b;
    }
    public double perimeter(){
        return 2*l+2*b;
    }
}
class square extends Shape{
    double s;
    public void input(){
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter side :");
        s = sc.nextDouble();
    }
    public double area(){
        return s*s;
    }
    public double perimeter(){
        return 4*s;
    }
}
```

```

    }
}
class abstract6{
    public static void main(String[] args){
        circle s =new circle();
        s.input();
        System.out.println("Circle area =" + s.area()+" Circle perimeter = "+s.perimeter());
        rect s1 = new rect();
        s1.input();
        System.out.println("Rectangle area =" + s1.area()+" Rectangle perimeter = "+s1.perimeter());
        square s2 = new square();
        s2.input();
        System.out.println("Square area =" + s2.area()+" Square perimeter = "+s2.perimeter());
    }
}

```

Output:



```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac abstract6.java

F:\java Programs1>java abstract6
Enter radius
5
Circle area =78.5 Circle perimeter = 31.400000000000002
Enter length :
10
Enter breadth :
21
Rectangle area =210.0 Rectangle perimeter = 62.0
Enter side :
6
Square area =36.0 Square perimeter = 24.0

F:\java Programs1>

```

7. write a program using calendar to display Current year, month and date

Input Code:

```
import java.util.Calendar;

class Calendar7{

    public static void main(String[] args) {

        Calendar cal = Calendar.getInstance();

        System.out.println("Year = " + cal.get(Calendar.YEAR));

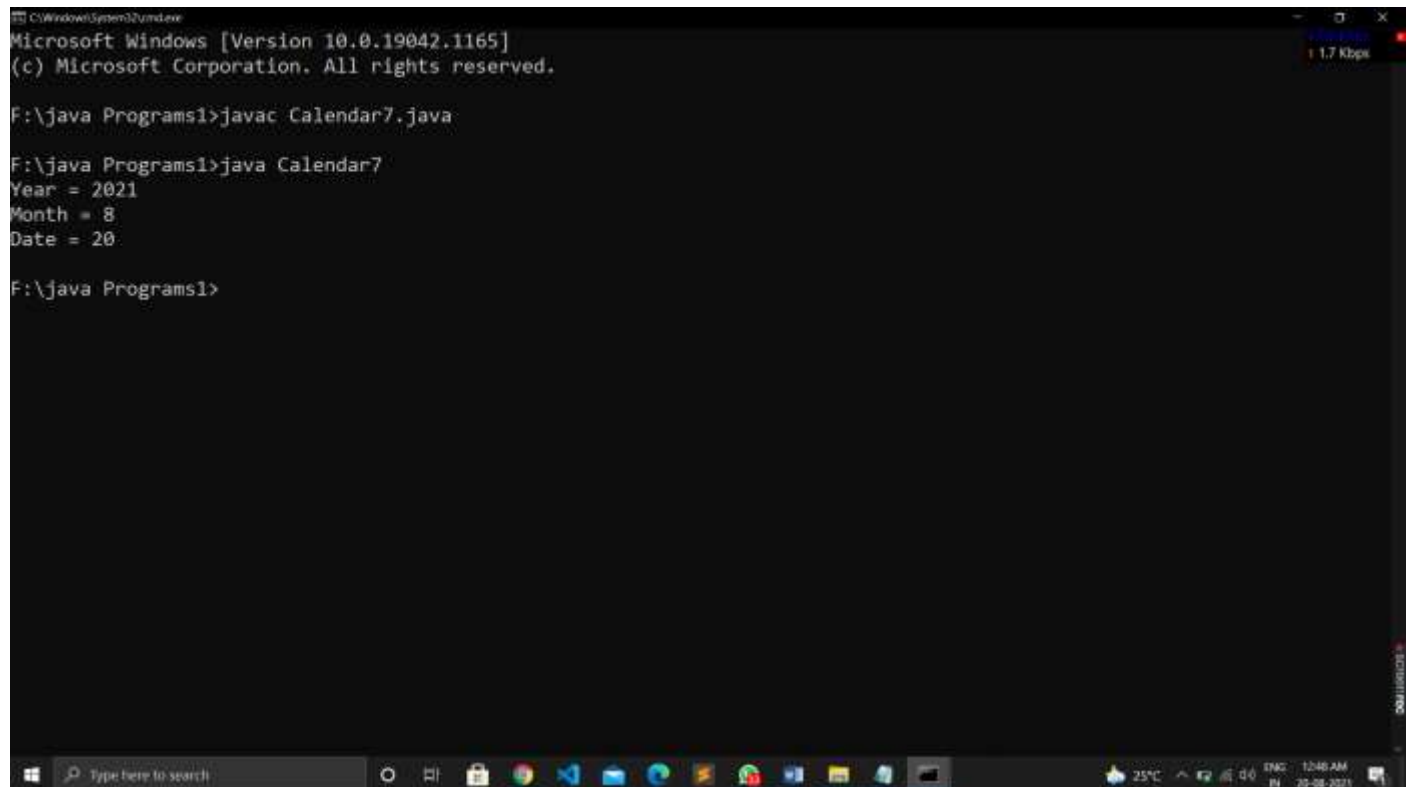
        System.out.println("Month = " + (cal.get(Calendar.MONTH) + 1));

        System.out.println("Date = " + cal.get(Calendar.DATE));

    }

}
```

Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1>javac Calendar7.java

F:\java Programs1>java Calendar7
Year = 2021
Month = 8
Date = 20

F:\java Programs1>
```

8. write a program using calendar that displays date using YYYY/MM/DD & day of week & week of month , hours, minutes, seconds, millisecond

Input Code:

```
import java.util.Calendar;
import java.text.SimpleDateFormat;
import java.util.Date;
class Calendar8{
    public static void main(String[] args) {
        Calendar cal = Calendar.getInstance();
        Date date = new Date();
        SimpleDateFormat formatter = new SimpleDateFormat("yyyy/MM/dd");
        String strDate= formatter.format(date);
        System.out.println( "Date in YYYY/MM/DD = " +strDate);
        int dayOfWeek = cal.get(Calendar.DAY_OF_WEEK);
        int Weekofmonth = cal.get(Calendar.WEEK_OF_MONTH);

        System.out.println("Day Of Week = " + dayOfWeek);
        System.out.println("Week Of Month = " + Weekofmonth);

        System.out.println("Hour = " + cal.get(Calendar.HOUR_OF_DAY));
        System.out.println("Minute = " + cal.get(Calendar.MINUTE));
        System.out.println("Second = " + cal.get(Calendar.SECOND));
        System.out.println("Millisecond = " + cal.get(Calendar.MILLISECOND));
    }
}
```

Output:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.
```

```
F:\java Programs1>javac Cal_Time8.java
```

```
F:\java Programs1>java Cal_Time8
```

```
Date in YYYY/MM/DD = 2021/08/20
```

```
Day Of Week = 6
```

```
Week Of Month = 3
```

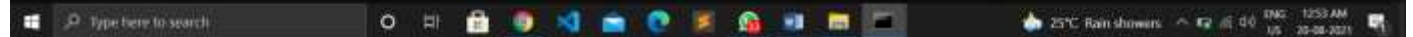
```
Hour = 8
```

```
Minute = 53
```

```
Second = 15
```

```
Millisecond = 577
```

```
F:\java Programs1>
```



9. Write a program to create package that display welcome to package.

Input Code:

```
package mypack;

public class pack{

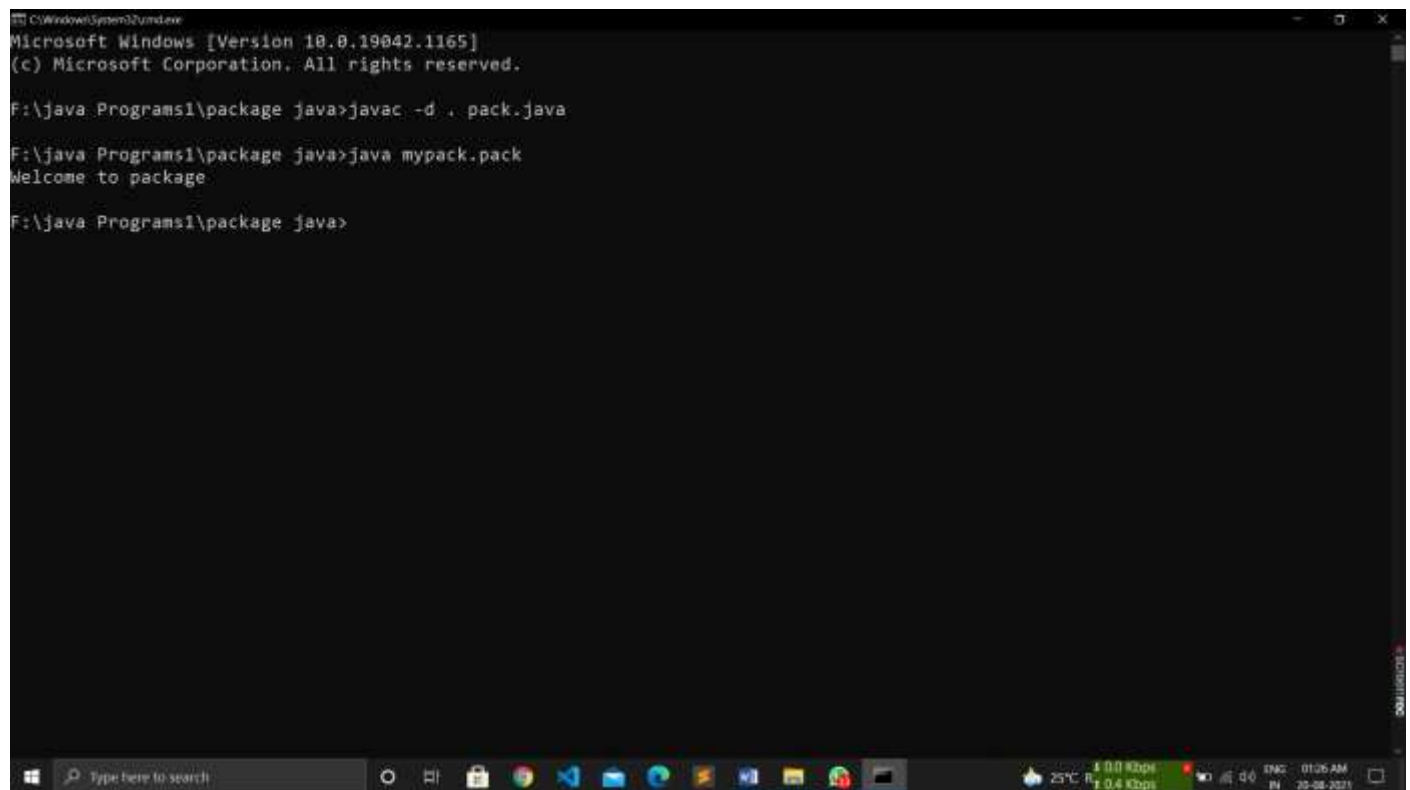
    public static void main(String args[]){

        System.out.println("Welcome to package");

    }

}
```

Output:



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1165]
(c) Microsoft Corporation. All rights reserved.

F:\java Programs1\package java>javac -d . pack.java

F:\java Programs1\package java>java mypack.pack
Welcome to package

F:\java Programs1\package java>
```

The screenshot shows a Windows command prompt window with the following text: C:\Windows\System32\cmd.exe, Microsoft Windows [Version 10.0.19042.1165], (c) Microsoft Corporation. All rights reserved., F:\java Programs1\package java>javac -d . pack.java, F:\java Programs1\package java>java mypack.pack, Welcome to package, and F:\java Programs1\package java>. The taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray on the right shows the date and time as 01:26 AM on 20-08-2021.

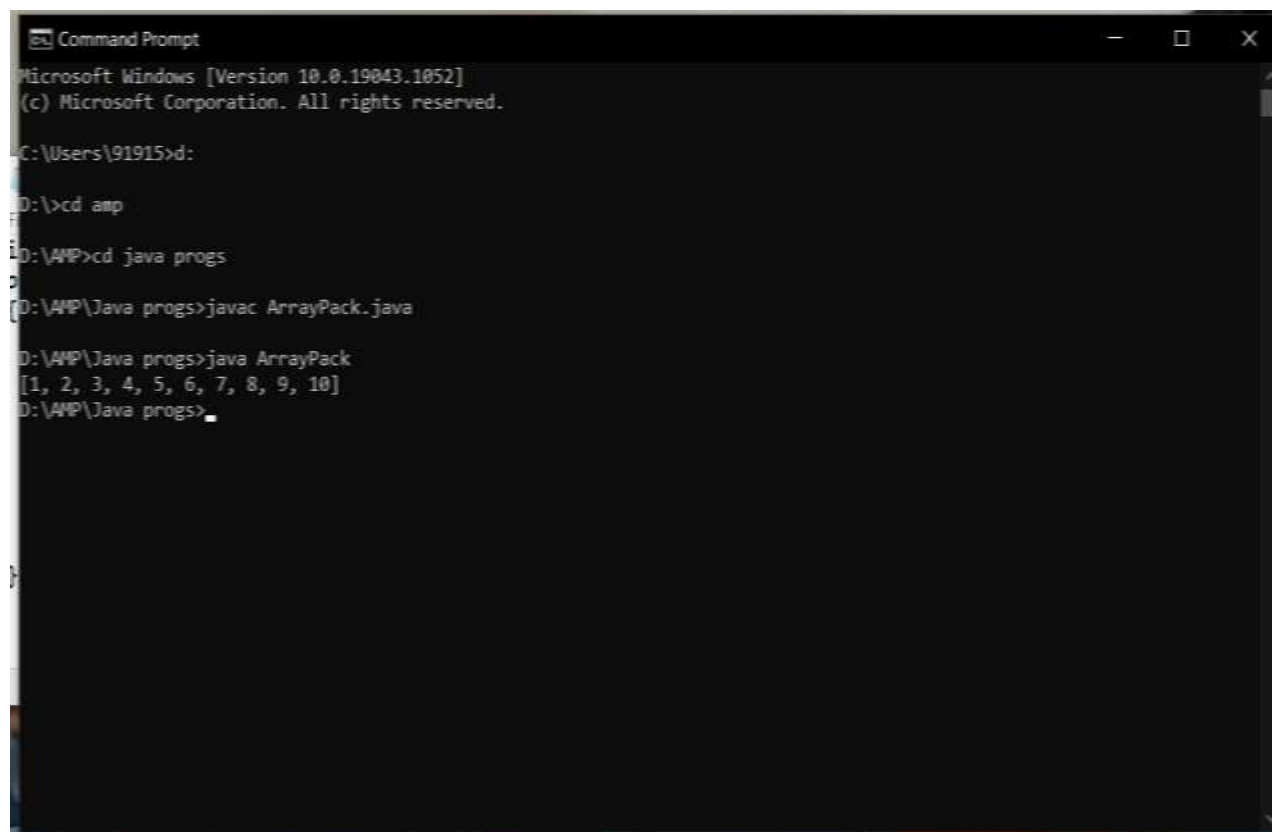
10. Write a program to create package array list using 10 elements.

Input Code:

```
import java.util.ArrayList;

public class ArrayPack
{
    public static void main(String args[])
    {
        int n=10;
        ArrayList<Integer> arr=new ArrayList<Integer>(n);
        for(int i=1;i<=n;i++)
            arr.add(i);
        System.out.print(arr);
    }
}
```

Output:



```
Microsoft Windows [Version 10.0.19043.1052]
(c) Microsoft Corporation. All rights reserved.

C:\Users\91915>d:
D:\>cd wp
D:\WP>cd java progs
D:\WP\Java progs>javac ArrayPack.java
D:\WP\Java progs>java ArrayPack
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
D:\WP\Java progs>
```