

Practical No 1

```
import java.util.Scanner;

class Vehicle {

    public static void main(String args[]) {

        int i ,n,t;

        float d,u,a;

        Scanner sc=new Scanner(System.in);

        System.out.print(" enter the number of intervals");

        n=sc.nextInt();

        for(i=1;i<=n;i++)

        {

            System.out.println(" intervals="+n);

            System.out.print(" enter the Second =");

            t=sc.nextInt();

            System.out.print(" enter the acceleration =");

            a=sc.nextFloat();

            System.out.print(" enter the velocity =");

            u=sc.nextFloat();

            d=(u*t)+a*((t^2)/2);

            System.out.println(" Distance  =" +d);

        }

    }

}
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PowerShellLatest

PS D:\Java> javac Vechicle.java
error: file not found: Vechicle.java
Usage: javac <options> <source files>
use --help for a list of possible options
PS D:\Java> javac Vehicle.java
PS D:\Java> java Vehicle
enter the number of intervals 2
intervals=2
enter the Second =2
enter the acceleration =6
enter the velocity =4
Distance  =8.0
intervals=2
enter the Second =7
enter the acceleration =3
enter the velocity =4
Distance  =34.0
PS D:\Java> |
```

1]Pattern program Diamond

```
import java.util.*;
import java.io.*;
class Pyramid1
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        int row;
        int i,j;
        int space;
        System.out.println("enter the rows");
        row=sc.nextInt();
        for(i=0;i<row/2+1;i++)
        {
            for(space=i;space<row/2;space++)
            {
                System.out.print(" ");
            }
            for (j=0;j<=i;j++)
            {
                System.out.print("* ");
            }
            System.out.println(" ");
        }
        for(i=0;i<row/2;i++)
        {
            for(space=0;space<=i;space++)
            {
                System.out.print(" ");
            }
            for (j=0;j<row/2-i;j++)
```

```

        {
            System.out.print("* ");
        }
        System.out.println(" ");
    }
}

```

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

```

PS D:\Java> javac Pyramid1.java
PS D:\Java> java Pyramid1
enter the rows
9
    *
   * *
  * * *
 * * * *
* * * * *
 * * * *
  * * *
   * *
    *
PS D:\Java>

```

2] Pattern program of K shape

```

import java.util.*;
import java.io.*;
class K
{
    public static void main(String args[])
    {
        int i,j,n;
        Scanner sc=new Scanner(System.in);
        System.out.println(" Enter the number");
        n=sc.nextInt();
        for(i=1; i<n;i++)
        {
            for(j=i; j<=n; j++)

```

```

{
    System.out.print(" * ");
}

    System.out.println("");
}

for(i=0; i<n; i++)
{
    System.out.print(" * ");
    for(j=1; j<=i; j++)
    {
        System.out.print(" * ");
    }

    System.out.println("");
}
}
}

```

Install the latest PowerShell for new features and improvements

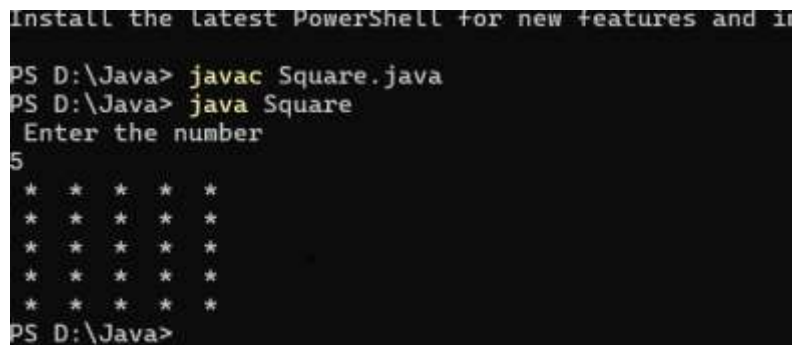
```

PS D:\Java> javac K.java
PS D:\Java> java K
Enter the number
5
 * * * * *
 * * * *
 * * *
 * *
 *
 * *
 * * *
 * * * *
 * * * * *
PS D:\Java>

```

3] Pattern program Square

```
import java.util.*;
import java.io.*;
class Square
{
    public static void main(String args[])
    {
        int i,j,n;
        Scanner sc=new Scanner(System.in);
        System.out.println(" Enter the number");
        n=sc.nextInt();
        for(i=0; i<n; i++)
        {
            for(j=0; j<n; j++)
            {
                System.out.print(" * ");
            }
            System.out.println("");
        }
    }
}
```



Install the latest PowerShell for new features and improvements

```
PS D:\Java> javac Square.java
PS D:\Java> java Square
Enter the number
5
* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
PS D:\Java>
```

4]Pattern program Triangle

1]

```
import java.util.*;
import java.io.*;
class Triangle
{
    public static void main(String args[])
    {
        int i,j,n;
        Scanner sc=new Scanner(System.in);
        System.out.println(" Enter the number");
        n=sc.nextInt();
        for(i=0; i<n; i++)
        {
            System.out.print(" * ");
            for(j=1; j<=i; j++)
            {
                System.out.print(" * ");
            }
            System.out.println("");
        }
    }
}
```



```
PS D:\Java> javac Triangle.java
PS D:\Java> java Triangle
Enter the number
7
*
* *
* * *
* * * *
* * * * *
* * * * *
* * * * *
```

2]

```
import java.util.*;
import java.io.*;
class Triangle3
{
    public static void main(String args[ ]) {
        Scanner sc=new Scanner(System.in);
        int row;
        int i,j;
        int space;
        System.out.println("enter the rows");
        row=sc.nextInt();
        for(i=0;i<row;i++)
        {
            for(space=i;space<row;space++)
            {
                System.out.print(" ");
            }
            for (j=0;j<=i;j++)
            {
                System.out.print("* ");
            }
            System.out.println(" ");
        }
    }
}
```



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

```
PS D:\Java> javac Triangle3.java
PS D:\Java> java Triangle3
enter the rows
7
```

Below the input, a pattern of stars is displayed, forming a right-angled triangle with 7 rows. Each row contains a series of spaces followed by a series of stars. The number of stars in each row increases from 1 to 7, and the number of leading spaces decreases from 6 to 0.

```

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * * *
* * * * * * *
```

3]

```
import java.util.*;
import java.io.*;
class Triangle4
{
    public static void main(String args[] ) {
        Scanner sc=new Scanner(System.in);
        int row;
        int i,j;
        int space;
        System.out.println("enter the rows");
        row=sc.nextInt();
        for(i=0;i<row;i++) {
            for(space=0;space<=i;space++)
            {
                System.out.print(" ");
            }
            for (j=0;j<row-i;j++)
            {
                System.out.print("* ");
            }
            System.out.println(" ");
        }
    }
}
```

```
PS D:\Java> javac Triangle4.java
PS D:\Java> java Triangle4
enter the rows
5
* * * * *
 * * * *
  * * *
   * *
    *
```