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ROLL NO:- 49

2D ARRAY AND STRING

1]MATRIX ADDITION , SUBTRACTION , MULTIPLICATION

CODE :

```
class Matrix{

public static void main(String arg[]) {

int a[][] = {{1,2},{3,4}};

int b[][] = {{1,2},{3,4}};

int c[][] = new int[2][2];

int i,j,k;

System.out.println("\nGiven A Matrix is...");

for(i=0;i<2;i++)

{

for(j=0;j<2;j++)

{

System.out.print(a[i][j]+"\\t");

}

System.out.println("\\n");

}

System.out.println("\nGiven B Matrix is...");

for(i=0;i<2;i++)

{

for(j=0;j<2;j++)
```

```
{  
    System.out.print(b[i][j]+"\\t");  
}  
    System.out.println("\\n");  
}  
    for(i=0;i<2;i++)  
    {  
        for(j=0;j<2;j++)  
        {  
            c[i][j] = a[i][j] + b[i][j];  
        }  
    }  
    System.out.println("\\nMatrix Addition is...");  
    for(i=0;i<2;i++)  
    {  
        for(j=0;j<2;j++)  
        {  
            System.out.print(c[i][j]+"\\t");  
        }  
        System.out.println("\\n");  
    }  
    for(i=0;i<2;i++)  
    {  
        for(j=0;j<2;j++)  
        {
```

```
c[i][j] = a[i][j] - b[i][j];

}

}

System.out.println("\nMatrix Subtraction is...");

for(i=0;i<2;i++)

{

for(j=0;j<2;j++)

{

System.out.print(c[i][j]+"\\t");

}

System.out.println("\\n");

}

for(i=0;i<2;i++)

{

for(j=0;j<2;j++)

{

for(k=0;k<2;k++)

{

c[i][j] = c[i][j] + a[i][k] * b[k][j];

}

}

}

System.out.println("\nMatrix Multiplication is...");

for(i=0;i<2;i++)

{
```

```
for(j=0;j<2;j++)  
{  
    System.out.print(c[i][j]+"\\t");  
}  
System.out.println("\\n");  
}  
}  
}
```

OUTPUT :

```
C:\Users\yedu0\OneDrive\Documents\java>java Matrix.java
```

```
Given A Matrix is...
```

```
1      2
```

```
3      4
```

```
Given B Matrix is...
```

```
1      2
```

```
3      4
```

```
Matrix Addition is...
```

```
2      4
```

```
6      8
```

```
Matrix Subtraction is...
```

```
0      0
```

```
0      0
```

```
Matrix Multiplication is...
```

```
7      10
```

```
15     22
```

2]STRING CONCAT

CODE :

```
class Stringmal
```

```
{
```

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

```
{
```

```
String s1="Pradeep";
```

```
String s2="Rathod";  
String s3=s1.concat(s2);  
System.out.println(s3);  
}  
}
```

OUTPUT :

```
C:\Users\yedu0\OneDrive\Documents\java>javac Stringmal.java  
  
C:\Users\yedu0\OneDrive\Documents\java>java Stringmal.java  
PradeepRathod
```

3]STRING EXAMPLE

CODE :

```
class Stringexample  
{  
    public static void main(String args[])  
    {  
        String s1="java";  
        char ch[]={'s','t','r','i','n','g'};  
        String s2=new String(ch);  
        String s3=new String("example");  
        System.out.println(s1);  
        System.out.println(s2);  
        System.out.println(s3);  
    }  
}
```

```
C:\Users\yedu0\OneDrive\Documents\java>javac stringexample.java

C:\Users\yedu0\OneDrive\Documents\java>java stringexample.java
java
string
example
```

4]STRING SIZE

CODE :

```
class Stringsize
{
public static void main(String[] args)
{
String str ="Pradee Rathod";
System.out.println(" The size of "+ "the string is:"+str.length());
}
}
```

OUTPUT :

```
C:\Users\yedu0\OneDrive\Documents\java>javac stringsize.java

C:\Users\yedu0\OneDrive\Documents\java>java stringsize.java
The size of the string is:13
```