Implement a program on

2D Array & String Functions

```
import java.util.Scanner;

public class TwoDimArray{
  public static void main(String args[]){
  int temp,n,i,j;
  Scanner s = new Scanner(System.in);
  System.out.print("Enter the size of matrix: ");
  n=s.nextInt();
  int a1[][]=new int[n][n];
  int a2[][]=new int[n][n];
  int a3[][]=new int[n][n];
  int a4[][]=new int[n][n];

  System.out.println("Enter values for first matrix :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
          a1[i][j]=s.nextInt();
      }
  }

  System.out.println("Enter values for second matrix :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
          a2[i][j]=s.nextInt();
      }
  }

  System.out.println("First Matrix :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
          System.out.print(a1[i][j]+"  ");
      }
      System.out.print("\n");
```

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  }

  System.out.println("Second Matrix :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
          System.out.print(a2[i][j]+"  ");
      }
      System.out.print("\n");
  }
System.out.println("1. Addition +");
System.out.println("2. Subtraction -");
System.out.println("3. Exit");
System.out.println("Enter your choice : ");
int h = s.nextInt();

switch(h)
{
case 1:
{
System.out.println("Sum of Matrices :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
      a3[i][j]=a1[i][j]+a2[i][j];
          System.out.print(a3[i][j]+"  ");
      }
      System.out.print("\n");
    }
}

break;
case 2:
{
System.out.println("Difference of Matrices :");
  for(i=0;i<n;i++)
  {
      for(j=0;j<n;j++)
      {
          a4[i][j]=a1[i][j]-a2[i][j];
      System.out.print(a4[i][j]+"  ");
      }
      System.out.print("\n");
```

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    }

  }
break;
default:
System.out.println("ERROR");
break;
}
  }
}
```

OUTPUT

```
C:\Users\User.DESKTOP-VKOH6B7\Documents\Java Projects>javac TwoDimArray.java

C:\Users\User.DESKTOP-VKOH6B7\Documents\Java Projects>java TwoDimArray.java
Enter the size of matrix: 3
Enter values for first matrix :
1
2
3
1
2
3
2
1
3
Enter values for second matrix :
1
3
4
2
1
2
3
4
5
First Matrix :
1  2  3
1  2  3
2  1  3
Second Matrix :
1  3  4
2  1  2
3  4  5
1. Addition +
2. Subtraction -
3. Exit
Enter your choice :
1
Sum of Matrices :
2  5  7
3  3  5
5  5  8
```