1. Problem statement: Write a program to print the following pattern:

```
*    *

 * *

  *

 * *

*   *
```

2. code with comments:

```java
import java.lang.*;
import java.util.Scanner;
public class TestMethod
{
        public static void main(String[] args)
        {
        int size=5; char display='*';                          //defining variable size and character
        for (int row = 0; row<size; row++)            // for loop for row iterations
            {
                for (int col=0; col<size; col++) // nested for loop for column iterations
                {
                    if (row==0 && col==0){        // if conditions to print the character
                    System.out.print(display);}
                    if (row==0 && col==4){
                    System.out.print(display);}
                    if(row==1 && col==1){
                    System.out.print(display);}
                    if(row==1 && col==3){
                    System.out.print(display);}
                    if(row==2 && col==2){
                    System.out.print(display);}
                    if(row==3 && col==1){
```

```
                    System.out.print(display);}

                    if(row==3 && col==3){

                    System.out.print(display);}

                    if(row==4 && col==0){

                    System.out.print(display);}

                    if(row==4 && col==4){

                    System.out.print(display);}




                    else{                    // else condition to print empty space

                     System.out.print(" ");

                     }



                        }

                }

            }



}
```

3. Explanation of the code: Creating For loop for identifying row and the Nested for loop for identifying the column. Assigning the character '*' to display and will print it in the respective row/column and forms the 'X' pattern.

4. Result flow in detail:

Creating For loop for identifying row and the Nested for loop for identifying the column. Assigning the character '*' to display and will print it in the respective row/column and forms the 'X' pattern.

5. Output screenshot:

```java
11  public class TestMethod {
12
13
14⊝    public static void main(String[] args)
15    {
16    int size=5; char display='*';
17    for (int row = 0; row<size; row++)
18            {
19                for (int col=0; col<size; col++)
20                {
21                    if (row==0 && col==0){
22                    System.out.print(display);}
23                    if (row==0 && col==4){
24                    System.out.print(display);}
25                    if(row==1 && col==1){
26                    System.out.print(display);}
27                    if(row==1 && col==3){
28                    System.out.print(display);}
29                    if(row==2 && col==2){
30                    System.out.print(display);}
31                    if(row==3 && col==1){
32                    System.out.print(display);}
33                    if(row==3 && col==3){
34                    System.out.print(display);}
35                    if(row==4 && col==0){
36                    System.out.print(display);}
37                    if(row==4 && col==4){
38                    System.out.print(display);}
```

Problems @ Javadoc Declaration Console ✕

<terminated> TestMethod [Java Application] C:\Program Files\Java\jdk1.8.0_111\bin\javaw.exe (25-Nov-2018, 10:30:10 PM)

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