

JAVA ASSIGNMENT
ON
PATTERN
PROGRAMS

Submitted by

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pattern1:

* * *

* *

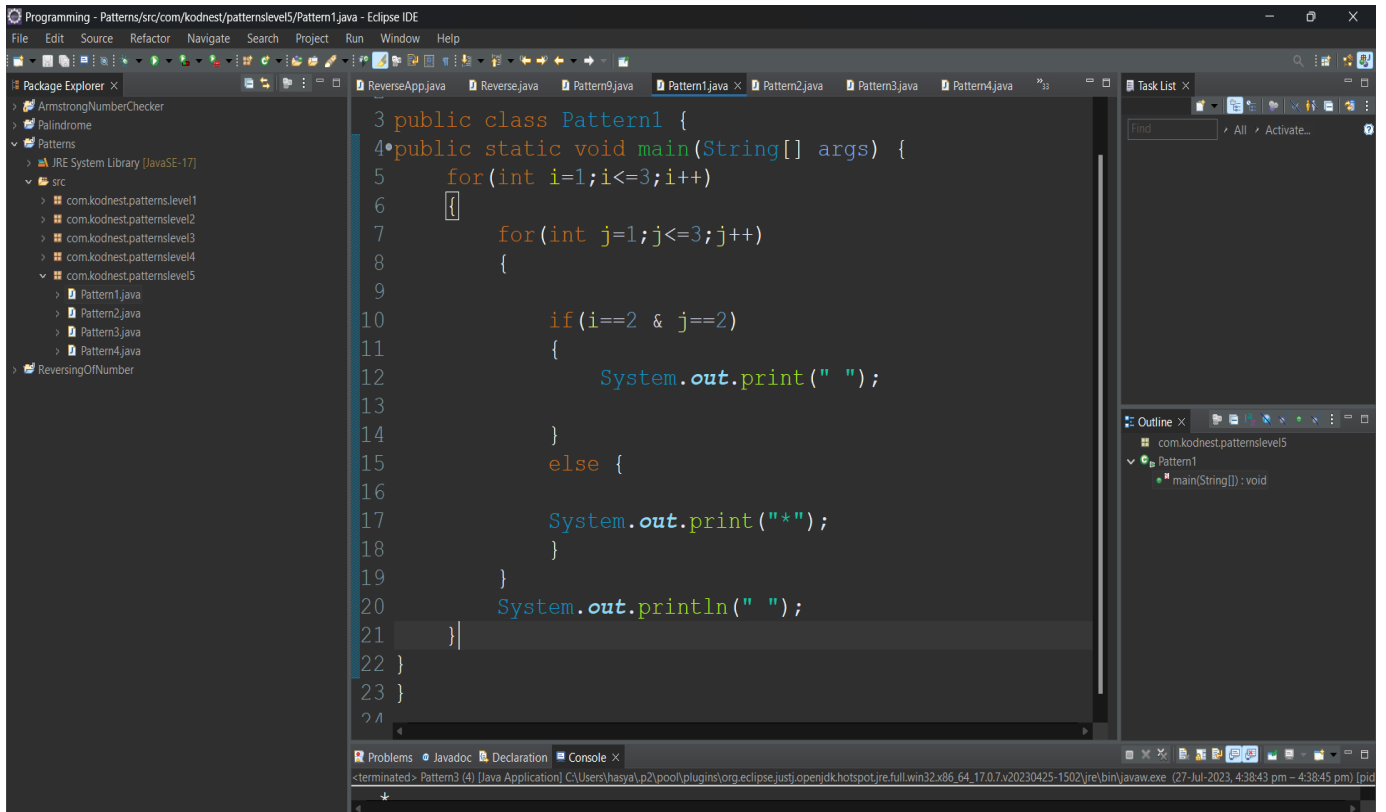
* * *

Program:

```
public class Pattern1 {  
    public static void main(String[] args) {  
        for(int i=1;i<=3;i++)  
        {  
            for(int j=1;j<=3;j++)  
            {  
                if(i==2 & j==2)  
                {  
                    System.out.print(" ");  
                }  
                else {  
                    System.out.print("*");  
                }  
            }  
            System.out.println(" ");  
        }  
    }  
}
```

}

}



```
3 public class Pattern1 {
4     public static void main(String[] args) {
5         for(int i=1;i<=3;i++)
6         {
7             for(int j=1;j<=3;j++)
8             {
9
10                if(i==2 & j==2)
11                {
12                    System.out.print(" ");
13
14                }
15                else {
16
17                    System.out.print("*");
18                }
19            }
20            System.out.println(" ");
21        }
22    }
23 }
24 }
```

Output:

* * *

* * *

* * *

Pattern2:

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

Program:

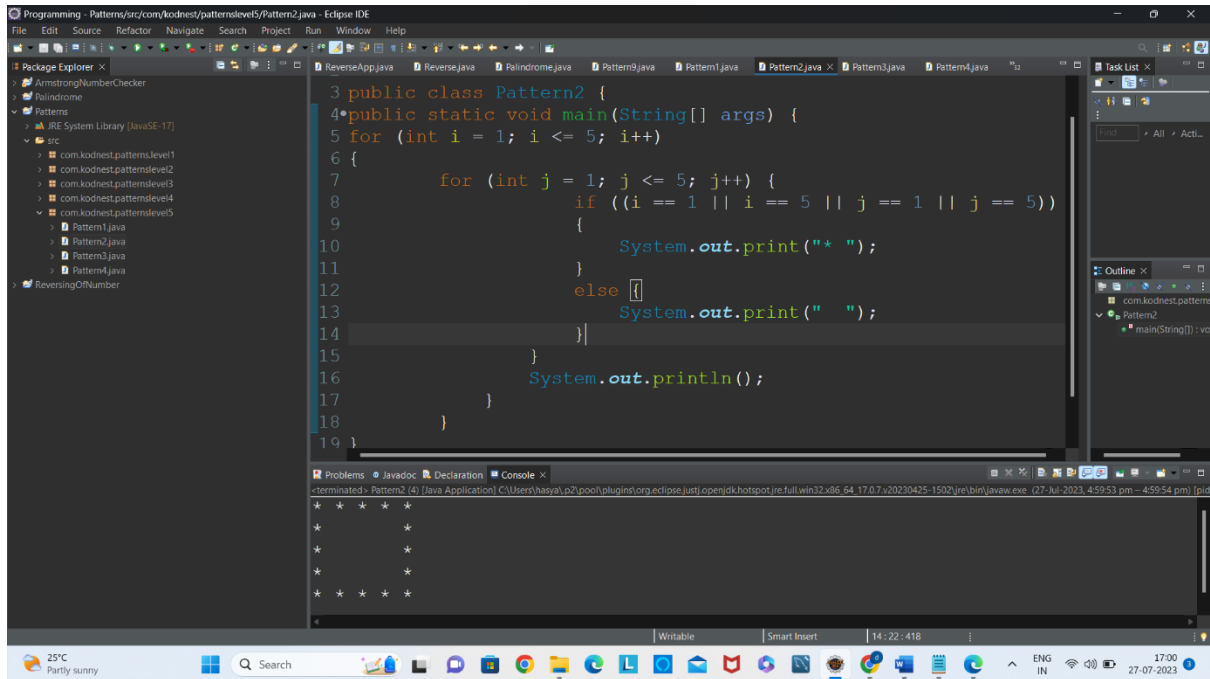
```
public class Pattern2 {
    public static void main(String[] args) {
        for (int i = 1; i <= 5; i++)
        {
            for (int j = 1; j <= 5; j++) {
                if ((i == 1 || i == 5 || j == 1 || j == 5))
                {
                    System.out.print("* ");
                }
                else {
                    System.out.print(" ");
                }
            }
            System.out.println();
        }
    }
}
```

```

    }

}

```



Output:

```

* * * * *
*           *
*           *
*           *
*           *
* * * * *

```

Pattern3:

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

Program:

```
public class Pattern3 {  
    public static void main(String[] args) {  
        for (int i = 1; i <= 3; i++)  
        {  
            for (int j =3; j > i; j--)  
            {  
                System.out.print(" ");  
            }  
            for (int k = 1; k <= 2 * i - 1; k++)  
            {  
                if(k==1 || k== 2*i-1 || i==3)  
                {  
                    System.out.print(" *");  
                }  
                else  
                {  
                    System.out.print(" ");  
                }  
            }  
            System.out.println();  
        }  
    }  
}
```

```
System.out.print(" ");
```

```
}
```

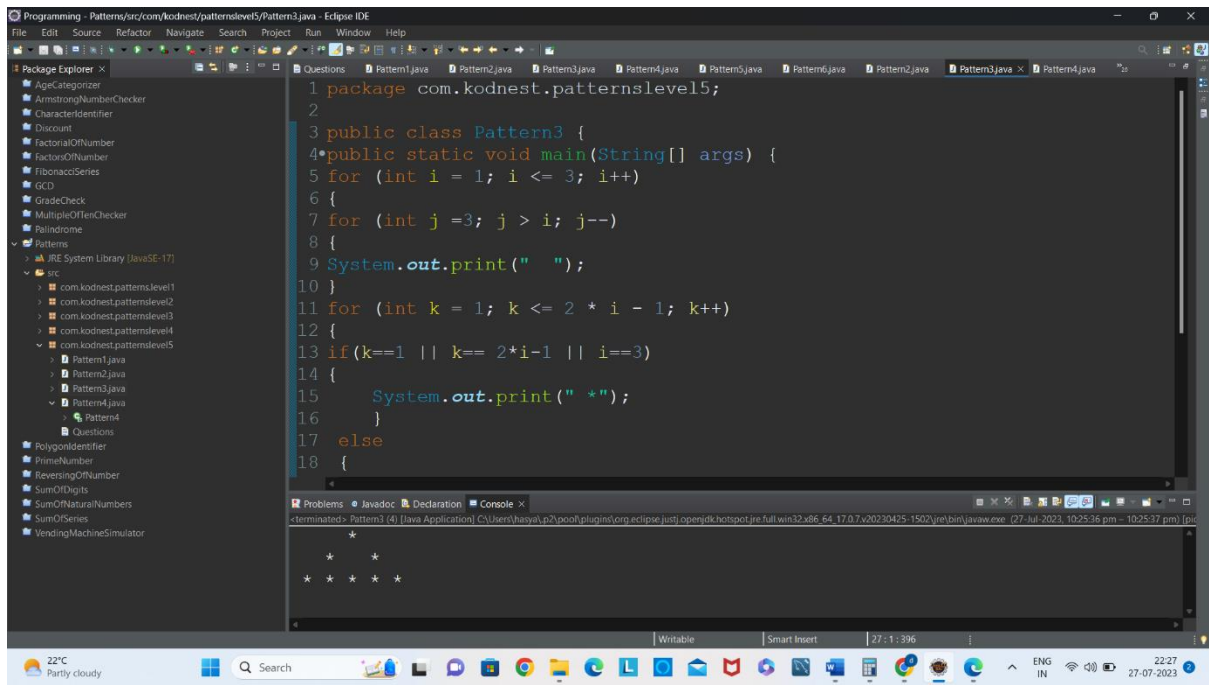
```
}
```

```
System.out.println();
```

```
}
```

```
}
```

```
}
```



The screenshot shows the Eclipse IDE with a project named 'Patterns'. The Package Explorer on the left shows a package structure with 'com.kodnest.patterns.level5' containing 'Pattern1.java', 'Pattern2.java', 'Pattern3.java', and 'Pattern4.java'. The main editor displays the code for 'Pattern3.java':

```
1 package com.kodnest.patterns.level5;
2
3 public class Pattern3 {
4     public static void main(String[] args) {
5         for (int i = 1; i <= 3; i++)
6         {
7             for (int j = 3; j > i; j--)
8             {
9                 System.out.print(" ");
10            }
11            for (int k = 1; k <= 2 * i - 1; k++)
12            {
13                if(k==1 || k== 2*i-1 || i==3)
14                {
15                    System.out.print(" *");
16                }
17            }
18            System.out.println();
19        }
20    }
21 }
```

The Console window at the bottom shows the output of the program:

```

 *
 * *
 * * * * *
```

Output:

```
*
```

```
* *
```

```
* * * * *
```

Pattern4:

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

Program:

```
public class Pattern4 {
    public static void main(String[] args) {
        for (int i = 1; i <= 3; i++)
        {
            for (int j = 3; j > i; j--)
            {
                System.out.print(" ");
            }
            for (int k = 1; k <= 2 * i - 1; k++)
            {
                if(k==1 || k== 2*i-1 || i==3)
                {
                    System.out.print("* ");
                }
                else {
                    System.out.print(" ");
                }
            }
        }
    }
}
```



```

System.out.println();
}
for (int i = 1; i <= 5; i++)
{
    for (int j = 1; j <= 5; j++)
    {
        if ((i == 1 || i == 5 || j == 1 || j == 5))
        {
            System.out.print("* ");
        }
        else {
            System.out.print(" ");
        }
    }
}
System.out.println();
}
}
}

```

The screenshot shows the Eclipse IDE with the following components:

- Package Explorer:** Displays a project structure with packages like `com.kodnest.patternslevel1` through `level5`. The `Pattern4` class is selected under `com.kodnest.patternslevel5`.
- Editor:** Shows the source code of `Pattern4.java`. The code is as follows:


```

1 package com.kodnest.patternslevel5;
2
3 public class Pattern4 {
4     public static void main(String[] args) {
5         for (int i = 1; i <= 5; i++)
6         {
7             for (int j = 3; j > i; j--)
8             {
9                 System.out.print(" ");
10            }
11            for (int k = 1; k <= 2 * i - 1; k++)
12            {
13                if (k == 1 || k == 2 * i - 1 || i == 3)
14                {
15                    System.out.print("* ");
16                }
17                else {
18                    System.out.print(" ");
19                }
20            }
21            System.out.println();
22        }
23    }
24 }

```
- Console:** Displays the output of the program, which is a diamond pattern of asterisks:


```

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *
* * * * *
 * * * * *
  * * * * *
   * * * *
    * * *
     * *
      *

```
- Problems:** Shows a message: "terminated: Pattern4 (4) [Java Application] C:\Users\hasan.p\pooof\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.7\j20230425-1502\jre\bin\javaw.exe (27-Jul-2023, 10:35:06 pm) [ps...]"
- Taskbar:** Shows the Windows taskbar with various application icons and the system clock indicating 22:36 on 27-07-2023.

Output:

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