

Assignment-7 Questions

1. WAP to print Alphabets A,B,C,D,E,F,G,H USING PATTERN PROGRAMMING LOGIC.

ANS: -

```
class abcdefgh {
    public static void main(String[] args)
    {

        int n = 7;
        for (int i = 0; i < n; i++)
        {
            for (int j = 0; j < n; j++)
            {
                if (i == 0 && j > 0 && j < (n - 1) || j == 0 && i > 0 || j == (n - 1) && i > 0 || i == n / 2)
                {
                    System.out.print("*");
                } else
                {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++)
            {
                if (i == 0 && j < (n - 1) || j == 0 || j == (n - 1) && i > 0 && i < (n - 1) && i != n / 2 || i == n
/ 2 && j < (n - 1) || i == (n - 1) && j < (n - 1)
                )
                {
                    System.out.print("*");
                } else
                {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++)
            {
                if (i == 0 && j > 0 || j == 0 && i > 0 && i != n - 1 || i == (n - 1) && j > 0)
                {
                    System.out.print("*");
                } else
                {
                    System.out.print(" ");
                }
            }
        }
    }
}
```

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Assignment-7 Questions

```
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (i == 0 && j < (n - 1) || j == 0 || j == (n - 1) && i > 0 && i < (n - 1) || i == (n - 1)
&& j < (n - 1))
        {
            System.out.print("*");
        } else
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (i == 0 || j == 0 || i == n / 2 || i == (n - 1))
        {
            System.out.print("*");
        } else
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (i == 0 || j == 0 || i == n / 2)
        {
            System.out.print("*");
        } else
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (i == 0 && j > 0 && j != n - 1 || j == 0 && i > 0 && i != n - 1 || i == (n - 1) && j >
0 && j != n - 1 || i == n / 2 && j > n / 2 && j != n - 1 || j == (n - 1) && i > n / 2 && i != n - 1)
        {
            System.out.print("*");
        } else
    }
```

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Assignment-7 Questions

```
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (j == 0 || j == (n - 1) || i == n / 2)
        {
            System.out.print("*");
        } else
        {
            System.out.print(" ");
        }
    }
    System.out.println();
}
}
```

Output: -

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

2. WAP to print triangle using star pattern programming logic.

Ans: - public class Complex

```
{
    public static void main(String[] args) {
        int n=11;
        for(int i=0; i<n; i++)
        {
            for(int j=0; j<n; j++)
            {
                if(i+j>=(n-1)/2 && j-i<=(n-1)/2 && i<= (n-1)/2 )
                {
                    System.out.print("*");
                }
            }
        }
    }
}
```

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Assignment-7 Questions

```
        else
        {
            System.out.print(" ");
        }
    }
    System.out.println();
}
}
```

Output: -



3. WAP to print

Ams: - public class Complex1

```
{
    public static void main(String[] args) {
        int n=11;
        for(int i=0; i<n; i++)
        {
            for(int j=0; j<n; j++ )
            {
                if(i+j<=(n-1)/2 || j-i>=(n-1)/2 || j==0 || j==(n-1) || i==(n-1)
                )
                {
                    System.out.print("*");
                }
            }
        }
    }
}
```

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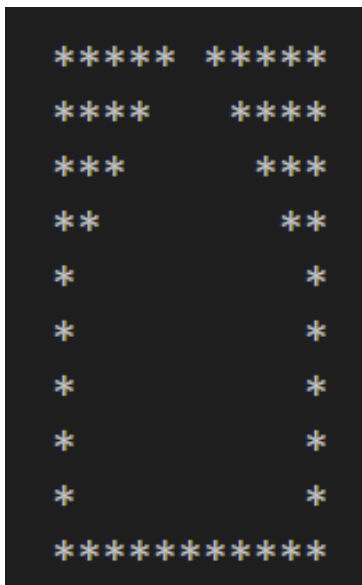
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Assignment-7 Questions

```
    }  
    else  
    {  
        System.out.print(" ");  
    }  
}  
System.out.println();  
}  
}  
}
```

Output:-



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

4. WAP to print PW SKILLS using pattern programming logic.

Ans: -

```
class pw_skills  
{  
    public static void main(String[] args)  
    {  
        int n = 7;  
        for (int i = 0; i < n; i++)  
        {
```

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Assignment-7 Questions

```
for (int j = 0; j < n; j++)
{
    if (i == 0 && j < (n - 1))
        || j == 0
        || j == (n - 1) && i > 0 && i < (n - 1) && i < (n - 1) / 2
        || i == (n - 1) / 2 && j < (n - 1))
    {
        System.out.print("*");
    }
    else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (j == 0
        || j == (n - 1)
        || i == j && j >= (n / 2)
        || i + j == n - 1 && j <= (n / 2))
    {
        System.out.print("*");
    } else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (i==n)
    {
        System.out.print("*");
    } else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (i == 0 && j > 0
```

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Assignment-7 Questions

```
|| j == 0 && i > 0 && i != n - 1 && i <= (n-2)/2
|| i == (n-1)/2 && j != (n-1) && j > 0
|| j == (n-1) && i >= (n-1)/2 && i != (n-1)/2 && i != j
|| i == (n - 1) && j < (n-1) )
{
    System.out.print("*");
}
else
{
    System.out.print(" ");
}
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (j == 0
        || (i + j) == ((n - 1) / 2)
        || (i - j) == ((n - 1) / 2))
    {
        System.out.print("*");
    }
    else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (i == 0
        || i == (n - 1)
        || j == n / 2)
    {
        System.out.print("*");
    }
    else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
```

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Assignment-7 Questions

```
        if (j == 0
            || i == (n - 1))
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (j == 0
            || i == (n - 1))
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++)
    {
        if (i == 0 && j > 0
            || j == 0 && i > 0 && i != n - 1 && i <= (n-2)/2
            || i == (n-1)/2 && j != (n-1) && j > 0
            || j == (n-1) && i >= (n-1)/2 && i != (n-1)/2 && i != j
            || i == (n - 1) && j < (n-1) )
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }
    System.out.println();
}
```

}

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Assignment-7 Questions

}

Output: -

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

5. Wap to print your full name using pattern programming logic.

```
Ans: - public class rishabh {
    public static void main(String[] args) {

        int n = 7;
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                // r
                if (i == 0 && j < (n - 1))
                    || j == 0
                    || j == (n - 1) && i > 0 && i < (n - 1) && i < (n - 1) / 2
                    || i == (n - 1) / 2 && j < (n - 1)
                    || i - j == ((n - 1) / 2)) {
                    System.out.print("*");
                } else {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++) {
                // i
                if (i == 0
                    || i == (n - 1)
                    || j == n / 2) {
                    System.out.print("*");
                } else {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++) {
                // s
                if (i == 0 && j > 0
                    || j == 0 && i > 0 && i != n - 1 && i <= (n - 2) / 2
```

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Assignment-7 Questions

```
        || i == (n - 1) / 2 && j != (n - 1) && j > 0
        || j == (n - 1) && i >= (n - 1) / 2 && i != (n - 1) / 2 && i != j
        || i == (n - 1) && j < (n - 1)) {
    System.out.print("*");
} else {
    System.out.print(" ");
}
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // h
    if (j == 0
        || j == (n - 1)
        || i == n / 2) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // a
    if (i == 0 && j > 0 && j < (n - 1)
        || j == 0 && i > 0
        || j == (n - 1) && i > 0
        || i == n / 2) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // b
    if (i == 0 && j < (n - 1)
        || j == 0
        || j == (n - 1) && i > 0 && i < (n - 1) && i != n / 2
        || i == n / 2 && j < (n - 1)
        || i == (n - 1) && j < (n - 1)) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
```

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Assignment-7 Questions

```
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // h
    if (j == 0
        || j == (n - 1)
        || i == n / 2) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}

System.out.println();
}

System.out.println();
for (int i = 0; i < n; i++) {
    for (int j = 0; j < n; j++) {
        // a
        if (i == 0 && j > 0 && j < (n - 1)
            || j == 0 && i > 0
            || j == (n - 1) && i > 0
            || i == n / 2) {
            System.out.print("*");
        } else {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
    for (int j = 0; j < n; j++) {
        // g
        if (i == 0 && j > 0 && j != n - 1
            || j == 0 && i > 0 && i != n - 1
            || i == (n - 1) && j > 0 && j != n - 1
            || i == n / 2 && j > n / 2 && j != n - 1
            || j == (n - 1) && i > n / 2 && i != n - 1) {
            System.out.print("*");
        } else {
            System.out.print(" ");
        }
    }
    System.out.print(" ");
}
```

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Assignment-7 Questions

```
for (int j = 0; j < n; j++) {
    // r
    if (i == 0 && j < (n - 1))
        || j == 0
        || j == (n - 1) && i > 0 && i < (n - 1) && i < (n - 1) / 2
        || i == (n - 1) / 2 && j < (n - 1)
        || i - j == ((n - 1) / 2)) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // a
    if (i == 0 && j > 0 && j < (n - 1))
        || j == 0 && i > 0
        || j == (n - 1) && i > 0
        || i == n / 2) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // w
    if (j == 0
        || j == (n - 1)
        || i == j && j >= (n / 2)
        || i + j == n - 1 && j <= (n / 2)) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // a
    if (i == 0 && j > 0 && j < (n - 1))
        || j == 0 && i > 0
        || j == (n - 1) && i > 0
        || i == n / 2) {
```

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Assignment-7 Questions

```
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++) {
    // 1
    if (j == 0
        || i == (n - 1)) {
        System.out.print("*");
    } else {
        System.out.print(" ");
    }
}

System.out.println();
}

}
```

Output: -

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

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

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