

1. Write a program to implement alphabets A B C D E F G H using pattern programming language.

Ans

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

```

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

```

```

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

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

// for G
System.out.println();
for (int i = 0; i < n; i++) {
    for (int j = 0; j < n; j++) {
        if (i == 0 && j > 0 || j == 0 && i > 0 && i < n - 1 ||
            i == (n - 1) / 2 && j >= (n - 1) / 2 && j < n - 1
            || j == n - 1 && i > (n - 1) / 2 && i < n - 1 || i == n - 1 && j > 0 && j < n - 1) {

```

```

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

```

2. Write a program to implement triangle using pattern programming.

Ans

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

3. Write a program to print home button .

Ans

```
public class Demo {  
    public static void main(String[] args) {  
        int n = 14;  
        // for A  
        for (int i = 0; i < n; i++) {  
            for (int j = 0; j < n; j++) {  
                if ( i >= 0 && j <= ((n - 1) / 2 - i) || i >= 0 && j >= ((n - 1) / 2 + i)  
                    || i >= (n - 1) / 2 && j == 0 || i >= (n - 1) / 2 && j == n - 1 || i == n - 1) {  
                        System.out.print("*");  
                    }  
  
                else {  
  
                        System.out.print(" ");  
                    }  
            }  
            System.out.println();  
        }  
    }  
}
```

4. Write a program to print PW SKILLS using pattern programming.

Ans

```
public class Demo {  
    public static void main(String[] args) {  
        int n = 13;  
        // for A  
        for (int i = 0; i < n; i++) {  
            for (int j = 0; j < n; j++) {  
                if ( j == 0 || i == 0 && j < (n - 1) || j == n - 1 && i > 0 && 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>(n-1)/2 && j==(n-1-i) || i>(n-1)/2 && j==i-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)/2 || i==(n-1)/2 && j>0 && j<n-1 || j==n-1 && i>(n-1)/2 && 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 (j==0 || i>=0&&j==(n-1)-2*i || i>=(n-1)/2 &&j==2*(i-(n-1)/2) ){
        System.out.print("*");
    }

    else {

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

    else {

        System.out.print(" ");
    }
}
System.out.println();
}
}
}

```

5. WAP to print your full name?

ANS

```
public class Demo {  
    public static void main(String[] args) {  
        int n = 13;  
        // for A  
        for (int i = 0; i < n; i++) {  
            //for R  
            for (int j = 0; j < n; j++) {  
                if ( j==0 || i==0&&j<(n-1) || j==n-1 &&i>0&&i<(n-1)/2 || i==(n-1)/2&&j<n-1 || i>=(n-1)/2  
&&j==2*(i-(n-1)/2)) {  
                    System.out.print("*");  
                }  
  
                else {  
  
                    System.out.print(" ");  
                }  
            }  
            //for A  
            System.out.print(" ");  
            for (int j = 0; j < n; j++) {  
                if (j==0&&i>0 || j==n-1&&i>0 || i==(n-1)/2 || i==0&&j<n-1&&j>0) {  
                    System.out.print("*");  
                }  
  
                else {  
  
                    System.out.print(" ");  
                }  
            }  
        }  
    }  
}
```

```

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

    else {

        System.out.print(" ");
    }
}
System.out.println();
}
}
}

```