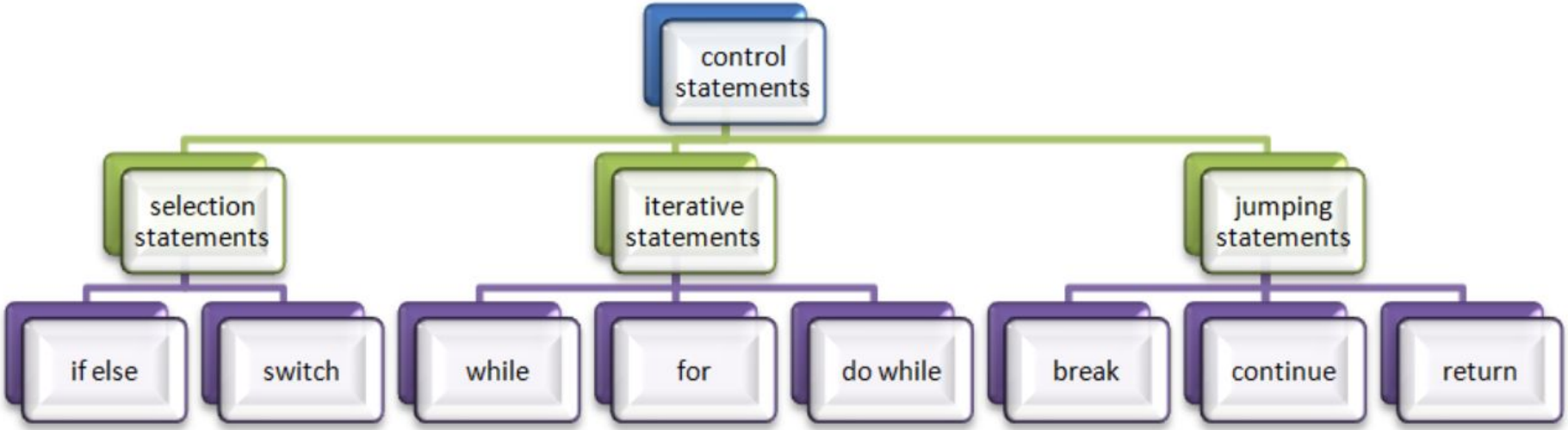
# Lecture 7

Control Structures

# Control Statements



# if-else

Remember **Conditionals** from Lecture 2?

- IF <something is true>

  THEN <something will happen>

- IF <something is true>

  THEN <something will happen>

  ELSE <something else will happen>

# if-else

**IF** <you give me 10 Rs>

**THEN** <I'll give you a packet of chips>

**ELSE IF** <you give me 20 Rs>

**THEN** <I'll give you a candy>

**ELSE** <I won't give you anything>

# if-else —- Even or odd number

```
int number = 5;


if(number % 2 == 0) {
    System.out.println("even");
} else {
    System.out.println("odd");
}
```

# if-else —- Check if number is even

```
int number = 4;


if(number % 2 == 0) {
    System.out.println("even");
}
```

# if-else —- Print Month

```
int month = 4;

if(month == 1) {
    System.out.println("January");
} else if(month == 2) {
    System.out.println("February");
} else if(month == 3) {
    System.out.println("March");
} else if(month == 4) {
    System.out.println("April");
} else if(month == 5) {
    System.out.println("May");
} else if(month == 6) {
    System.out.println("June");
} else {
    System.out.println("I can only print months from January to June");
}
```

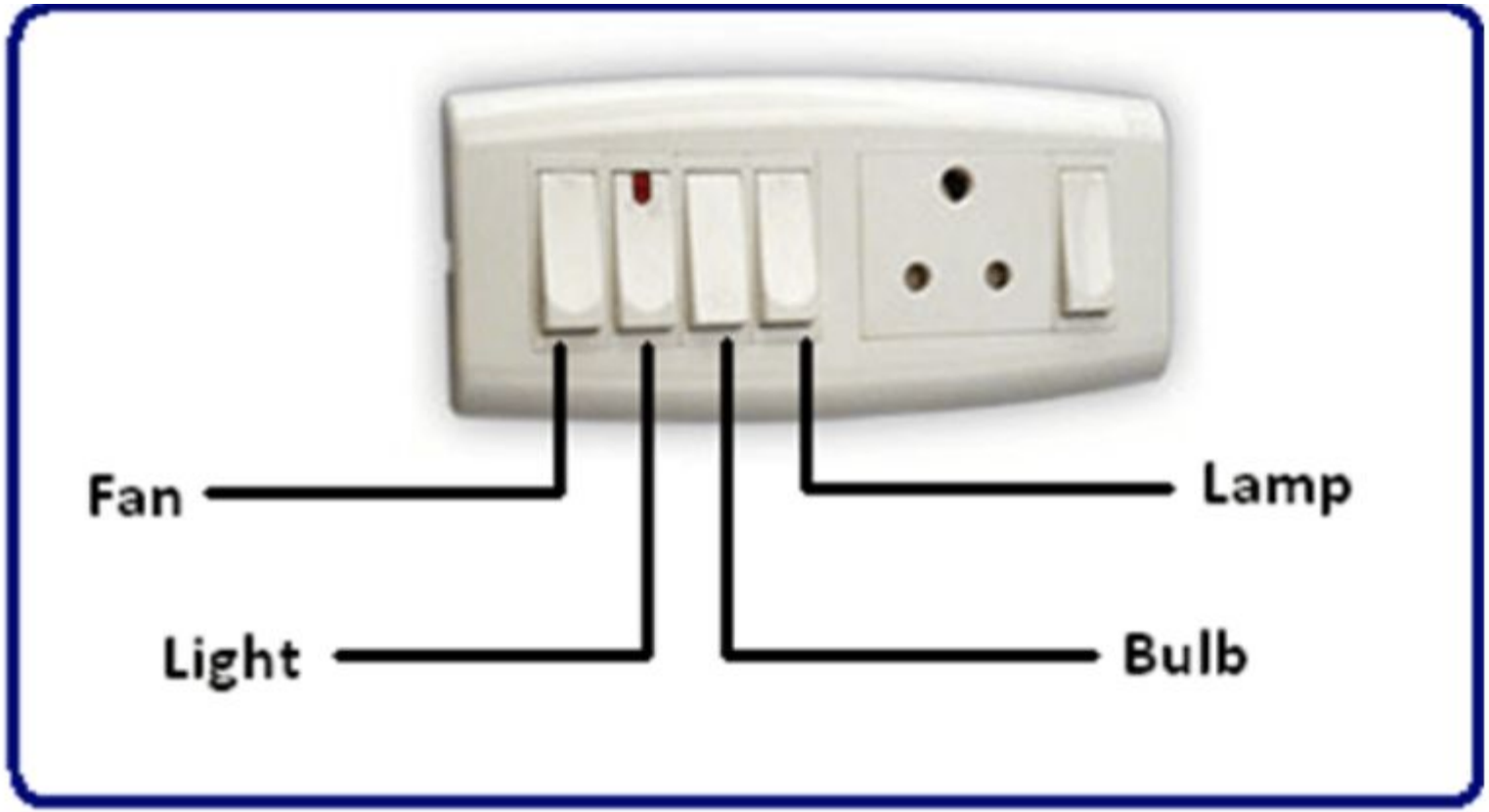
# if-else —-- Print Season

```
int month = 4;

if(month >= 3 && month <= 5) { // March to May
    System.out.println( "Spring");
}
else if(month >= 6 && month <= 8) { // June to August
    System.out.println( "Summer");
}
else if(month >= 9 && month <= 11) { // September to November
    System.out.println( "Autumn");
}
else { // December to January
    System.out.println( "Winter");
}
```

# switch

```
switch(expression) {
    case (value1):
        // statements;
    break;
    case (value2):
        // statements;
    break;
    default
        // statement
}
```


Fan
Light
Bulb
Lamp

# switch

```
int day = 6;

switch(day) {
    case (1):
        System.out.println("Monday");
    break;
    case (2):
        System.out.println("Tuesday");
    break;
    case (3):
        System.out.println("Wednesday");
    break;
    case (4):
        System.out.println("Thursday");
    break;
    case (5):
        System.out.println("Friday");
    break;
    case (6):
        System.out.println("Saturday");
    break;
    case (7):
        System.out.println("Sunday");
    break;
    default:
        System.out.println("Invalid day");
```

# ternary operators

Syntax:

(expression) ? <return if expression is True> : <return if expression is False>

```
int num = 4;

boolean even = (num % 2 == 0) ? true :  false;
if(even) {
    System.out.println( "even");
} else {
    System.out.println( "false");
}
```

# continue statement

```
for(int i = 1; i <= 10; i++) {
    if(i > 5 && i <= 8) {
        continue;
    }
    System.out.println("Hello World " + i);
}
System.out.println("We are out of for loop");
```