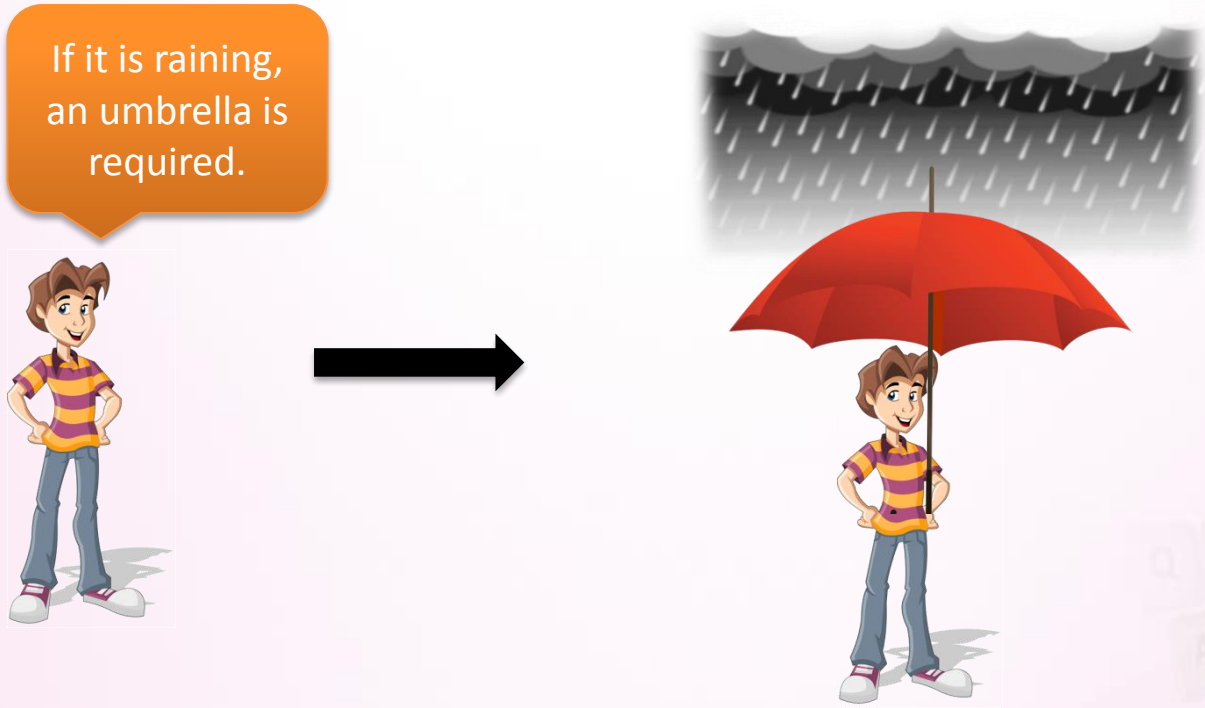
Objectives

- In this session, you will learn to:
  - Work with conditional constructs
  - Work with loop constructs

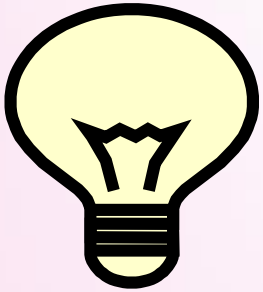
Working with Conditional Constructs

- Scenario:



Working with Conditional Constructs (Contd.)

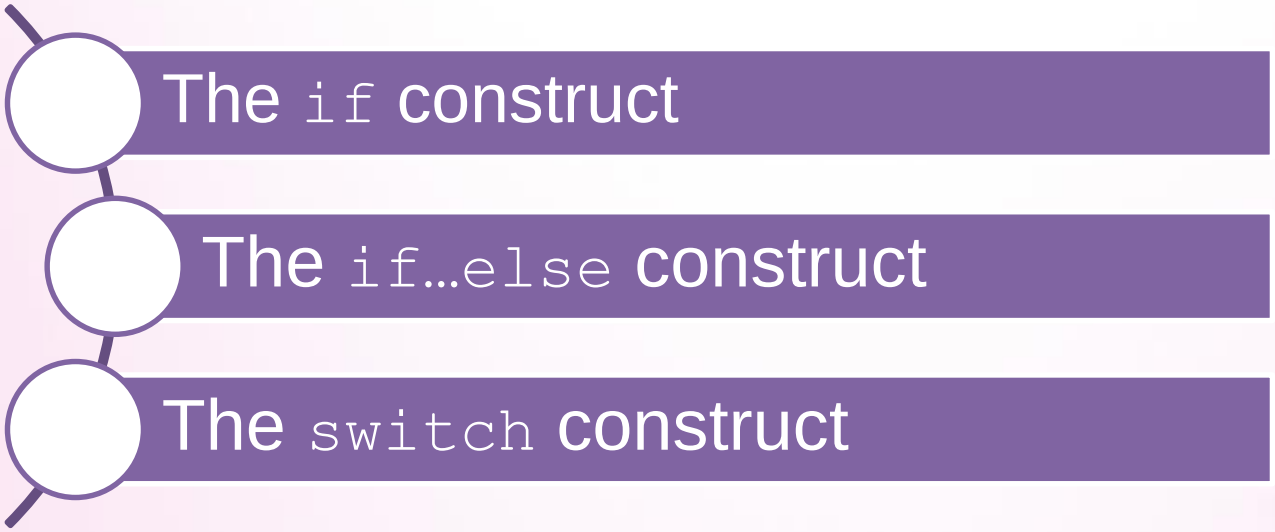
- Scenario (Contd.):



In the same way, you can incorporate the decision making techniques in the Java programming language.

Working with Conditional Constructs (Contd.)

- The decision making technique can be implemented in the Java programs by using the following conditional constructs:

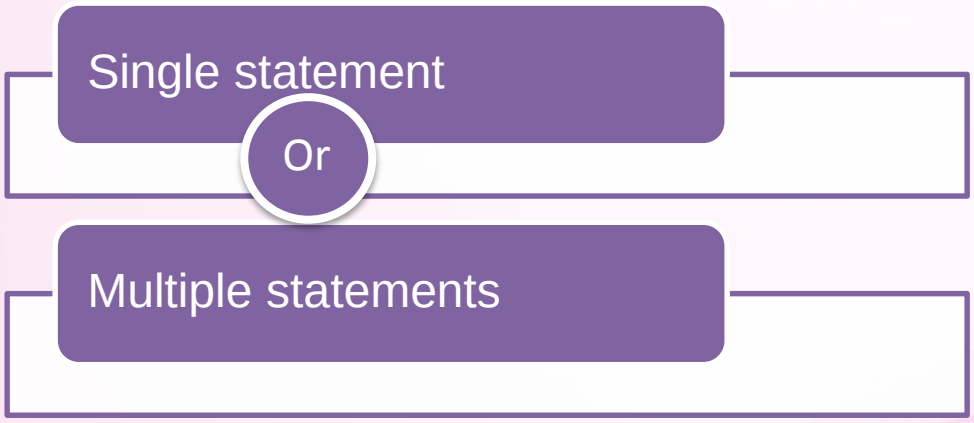


Using the if Construct

- The `if` construct executes statements based on the specified condition.
- The syntax for the `if` construct is:

```
if(expression)
{
    statement(s)
}
```

- The `if` construct can contain either a:



Using the if Construct (Contd.)

- It is not mandatory to enclose the single statement within a pair of braces.
- However, the multiple statements must be enclosed within a pair of braces.
- Java also supports the nested `if` construct.
- The syntax of the nested `if` construct is:

```
if(condition)
{
    if(condition)
    {
        //statement(s)
    }
}
```

Using the if…else Construct

- The `if…else` construct executes statements based on the specified condition.
- The syntax for the `if…else` construct is:

```
if(expression)
{
        //statement(s)
}
else
{
        //statement(s)
}
```

Using the if…else Construct (Contd.)

- Nesting of the `if…else` constructs is possible in both, the `if` and `else` blocks.
- The syntax of the nested `if…else` construct is:

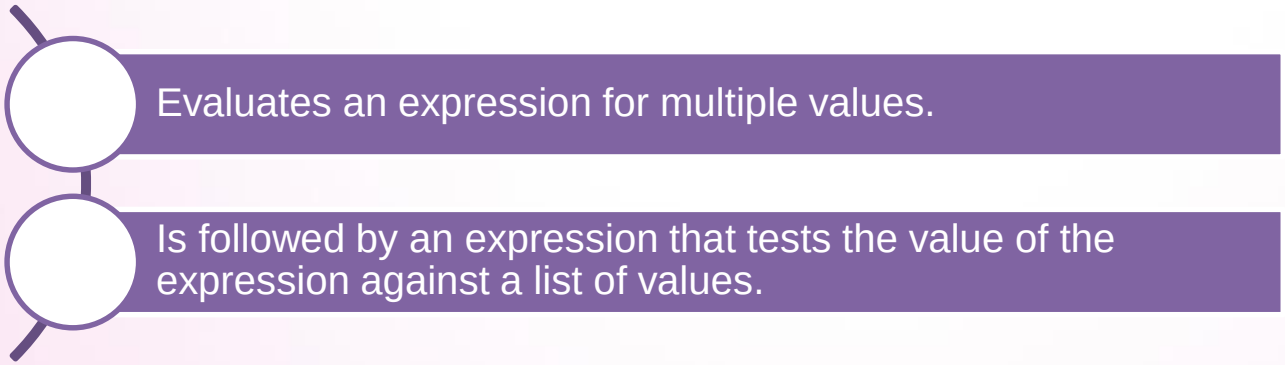
```
if(expression)                    //Line 1
{
        if(expression)            //Line 2
        {
                //statement(s)
        }
        else
        {
                //statement(s)
        }
}
```

Using the if…else Construct (Contd.)

```
else
{
        if(expression)        //Line 3
        {
                //statement(s)
        }
        else
        {
                //statement(s)
        }
}
```

Using the switch Construct

- The `switch` construct:



- The syntax for the `switch` construct is:

```
switch(expression)
{
        case Expr_1: //statement(s)
                     break;
        case Expr_2: //statement(s)
                     break;
```

Using the switch Construct (Contd.)

```
.
.
.
        case Expr_N: //statement(s)
                     break;
        default: //statement(s)
}
```

Using the switch Construct (Contd.)

- In the `switch` construct, `expression` given in the `switch` statement is compared with each `case` constant.
- If the `case` constant matches with `expression`, the control is moved to the statement following the matched case constant. Otherwise, the control is moved to the default statement.

Just a minute

- Which one of the following values can be accepted by the `switch` construct?
  - Boolean
  - Float
  - Double
  - Character

Just a minute (Contd.)

- Solution:
  - Character