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NESTED IF AND IF-ELSE

JAYASIMHA YALAMAKURU



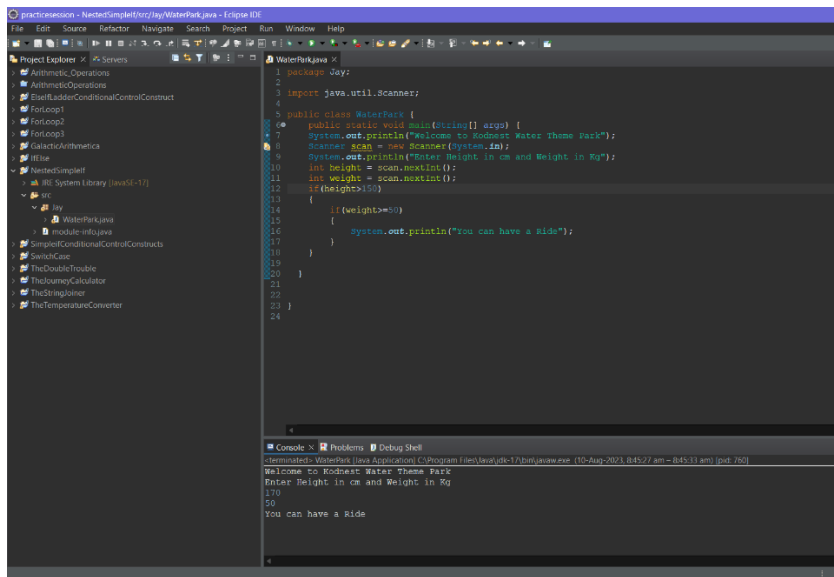
What is Nested If?

Generally, if condition works like yes or no type. If the condition satisfies, it executes some block of code. Otherwise, it doesn't execute the code.

Nested means within. Nested if condition means if-within-if. Nested if condition comes under decision-making statement in Java. There could be infinite if conditions inside an if condition. The below syntax represents the Nested if condition.

Syntax:

```
if(condition) {  
  
    if(condition) {  
        .....  
    }  
}
```



```
package Jay;
import java.util.Scanner;

public class WaterPark {
    public static void main(String[] args) {
        System.out.println("Welcome to Kidswest Water Theme Park");
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter Height in cm and Weight in Kg");
        int height = scan.nextInt();
        int weight = scan.nextInt();
        if (height > 150)
        {
            if (weight >= 50)
            {
                System.out.println("You can have a Ride");
            }
        }
    }
}
```

Console: Jay's WaterPark Java Application (C:\Program Files\Java\jdk-17\bin\javaw.exe [10-Aug-2023 10:45:27 am - 845.11 am] pid: 750)

Welcome to Kidswest Water Theme Park
Enter Height in cm and Weight in Kg
170
50
You can have a Ride

- Nested simple if code

What is Nested if-else?

We saw how helpful if and else statements are, but what if we need to check for more conditions even when one condition is satisfied? In such cases, we use nested if-else statement. Nesting is the practice of enclosing several if-else statements within an if-and-else statement.

First, we'll use an if statement to determine whether the person is tall enough for the ride. Then, if he/she matches the height parameter, we would need to put another if and else statement. In the if block we again check whether the person is above or equal to 50 Kg of weight. Likewise, in the else

block, we would need to block the person from taking the ride if he/she is of not insisted height.

Syntax:

```
If(condition)
```

```
{
```

```
    If(condition)
```

```
{
```

```
    .....body.....
```

```
}
```

```
    Else
```

```
{
```

```
    .....body.....
```

```
}
```

```
}
```

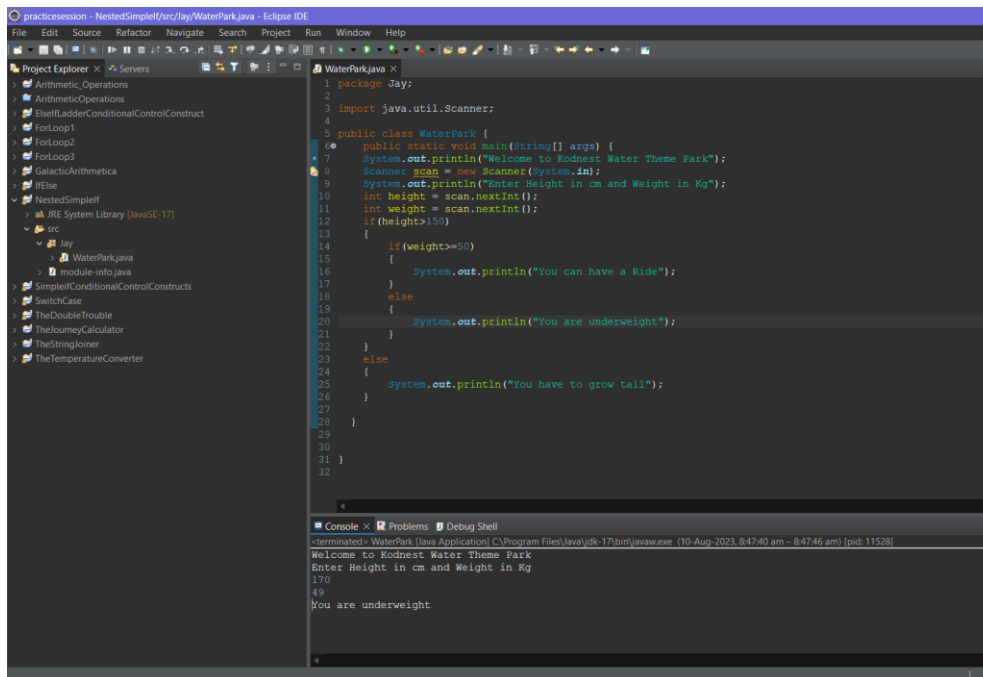
```
Else
```

```
{
```

```
    .....body.....
```

```
}
```

Case 1:



```
package Jay;

import java.util.Scanner;

public class WaterPark {

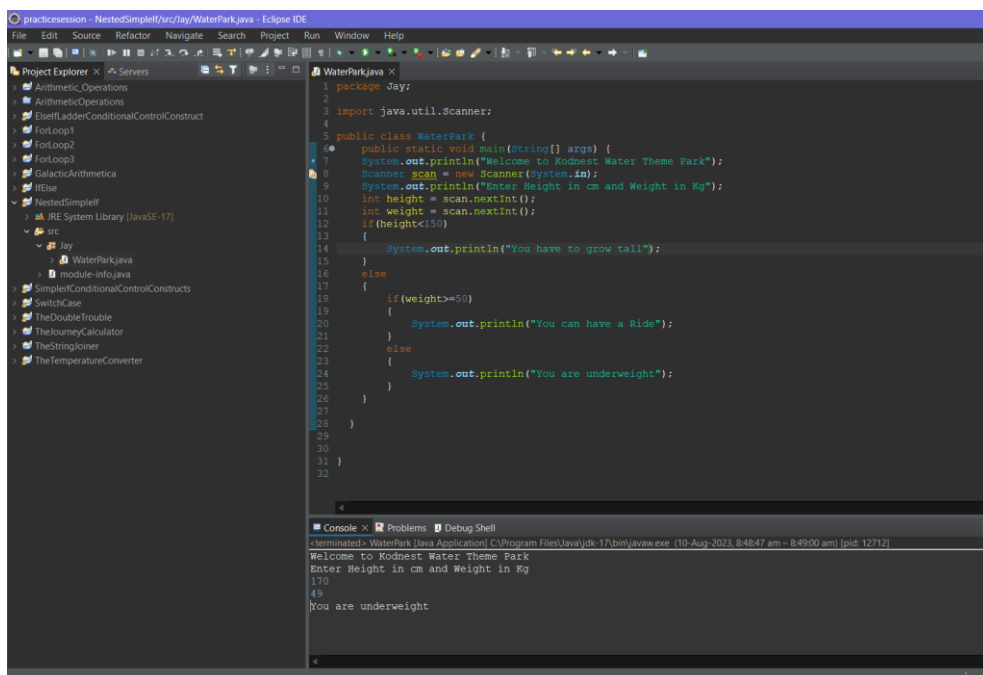
    public static void main(String[] args) {
        System.out.println("Welcome to Kodnest Water Theme Park");
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter Height in cm and Weight in Kg");
        int height = scan.nextInt();
        int weight = scan.nextInt();
        if (height > 150)
        {
            if (weight >= 50)
            {
                System.out.println("You can have a Ride");
            }
            else
            {
                System.out.println("You are underweight");
            }
        }
        else
        {
            System.out.println("You have to grow tall");
        }
    }
}
```

Console Output:

```
<terminated> WaterPark [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (10-Aug-2023 8:47:40 am - 8:47:46 am) [pid: 11520]
Welcome to Kodnest Water Theme Park
Enter Height in cm and Weight in Kg
170
49
You are underweight
```

- Nested if-else condition to allow a person to take a ride based on height and weight

Case 2:



```
package Jay;

import java.util.Scanner;

public class WaterPark {

    public static void main(String[] args) {
        System.out.println("Welcome to Kodnest Water Theme Park");
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter Height in cm and Weight in Kg");
        int height = scan.nextInt();
        int weight = scan.nextInt();
        if (height < 150)
        {
            System.out.println("You have to grow tall");
        }
        else
        {
            if (weight >= 50)
            {
                System.out.println("You can have a Ride");
            }
            else
            {
                System.out.println("You are underweight");
            }
        }
    }
}
```

Console Output:

```
<terminated> WaterPark [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (10-Aug-2023 8:48:47 am - 8:49:00 am) [pid: 12712]
Welcome to Kodnest Water Theme Park
Enter Height in cm and Weight in Kg
170
49
You are underweight
```

- Nested if-else inside an else block to allow a person on a ride in a theme park