Difference between switch case and else if ladder

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ASSIGNMENT

Today's assignment topics are

  1. Difference between else if ladder and switch?

we will understand the difference between switch statement and if-else-if ladder statement. Before moving to the differences, let's see the basic definitions of both control statements first.

First we are going to start with switch case:

SWITCH CASE:

Instead of writing **many** if..else statements, you can use the switch statement.

The switch statement selects one of many code blocks to be executed:

This is how it works:

- The switch expression is evaluated once.
- The value of the expression is compared with the values of each case.
- If there is a match, the associated block of code is executed.
- The break and default keywords are optional, and will be described later in this chapter

Syntax:

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```
switch(expression){

case 1:

//code block

break;

Case 2:

//block code

Break;

default:

//code block

}
```

The break Keyword

When Java reaches a break keyword, it breaks out of the switch block.

This will stop the execution of more code and case testing inside the block.

When a match is found, and the job is done, it's time for a break. There is no need for more testing.

NOTE: A break can save a lot of execution time because it "ignores" the execution of all the rest of the code in the code in the switch block.

The default Keyword

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The default keyword specifies some code to run if there is no case match.

NOTE: If the default statement is used as the last statement in a switch block, it does not need a break.

The example below uses the weekday name:

```java
Import java util. scanner;

Public class demo {

Public static void main(String[]args){

Scanner scan=new Scanner(Syatem.in);

System.out.println("Enter a number between 1-7");

int num=scan.nextInt();

switch{

case 1:

System.out.println(" Monday');

break;

case 2:

System.out.println(" Tuesday");

break;

case 3:

System.out.println(" wednesday");
```

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```
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("idiot … check your code properly");

}

}

}
```

if else if ladder :

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if-else-if ladder statement controls the statements to be executed on the basis of some conditions. Whenever statement is used, the compiler initially checks the condition whether it is true or false and if the condition is found to be true then the corresponding statements are executed. If the condition is false, it continues checking the next else if statement until the condition comes to be true or the control comes to the end of the else if ladder.

<p align="center">(Or)</p>

If you have multiple blocks of statements and only one block of statement should be executed at any given point of time then we have to make use of the else of ladder conditional control construct.

syntax

```
if( condition 1)
statement 1;
else if (condition 2)
statement 2;
else
default statement;
```

EXAMPLE:

```java
import java.util.Scanner;

public class GradeApp {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter your score");
        int score=scan.nextInt();
        Grade g1=new Grade();
        g1.GiveGrade(score);
}
}
```

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```java
public class Grade {
    void GiveGrade(int score) {
        if (score>=90) {
            System.out.println("A+ - grade");
        }
        else if(score>=80 && score<90) {
            System.out.println("A - grade");
        }
        else if(score>=70 && score<80) {
            System.out.println("B - grade");
        }
        else if(score>=60 && score<70) {
            System.out.println("C - grade");
        }
        else if(score>=50 && score<60) {
            System.out.println("D - grade");
        }
        else {
            System.out.println("Fail....Get lost");
        }
    }
}
```

Difference between switch case and if-else-if

Sr.No	switch statement	if-else-if ladder statement
1.	The expression	The

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	used in switch statement can return an integer or character.	expression used in if-else-if ladder statement returns true or false value.
2.	switch statement has more flexibility.	if-else-if ladder statement have poor flexibility.
3.	This statement is easy to handle.	This statement is difficult to handle.
4.	In switch statement each case of switch the last statement must be the break statement.	In if-else-if ladder statement there is no necessity of break statement.
5.	There is no need to put the multiple statements of a case into braces.	Multiple statements of if-else-if ladder statement must be within braces.

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Difference between switch case and else if ladder

6.	switch statement have clearer format than if-else-if ladder statement.	if-else-if ladder statement have a complex format.
7.	In switch statement the keyword switch, case and default are used.	In if-else-if ladder statement the keyword if and else are used.