

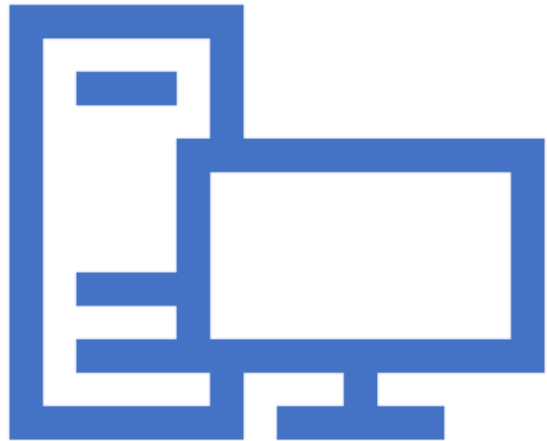
The background of the slide is a photograph of various electronic components scattered on a white surface. These include resistors with color bands, small yellow and orange capacitors, black integrated circuits, and a green printed circuit board (PCB) with numerous pins. A black rectangular box is overlaid on the right side of the image, containing the title and author information.

PROGRAMMING SKILLS II

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Lecture 07

Foundation Certificate in IT – Curtin Batch



CONDITIONAL STATEMENTS

LECTURE 7

TERNARY CONDITIONAL OPERATOR (?:)



- Conditional Operator ($e_1 ? e_2 : e_3$)
- Syntax:
 - Condition **?** Statement 1 **:** statement 2 **;**
- Info:
 - C#'s only ternary operator
 - Can be used to construct expressions
 - Similar to an **if/else** structure

Example:

Using IF-ELSE

```
int number = 2;
string result;


if (number % 2 == 0){
    result = "Number is Even";
    Console.WriteLine(result);    -----> if the statement True
}
else {
    result = "Number is Odd";
    Console.WriteLine(result);    -----> if the statement False
}
```

*Using Ternary
Conditional
Operator*

```
int number = 2;
string result;

result = (number % 2 == 0) ? "Number is Even" : "Number is Odd";
Console.WriteLine(result);
```

if the statement True *if the statement False*



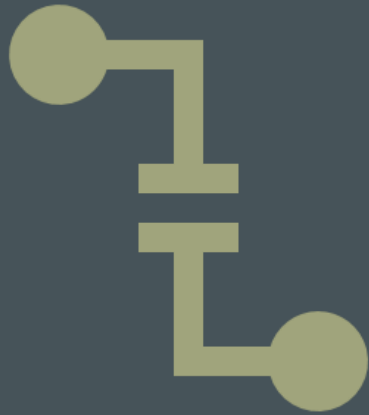
PROGRAMMING EXERCISE: (1)



- Code and execute the following scenario as console application using **if/else statement**.
- Government has decided to vaccinate for a selected area. Officers need an application to get the age of villagers and check the eligibility of vaccination.

Age	Eligibility
0-60 years	Not eligible
60 or more than 60	Eligible

PROGRAMMING EXERCISE: (2)



- Code and execute the following scenario as console application using **Ternary Conditional Operator** .
 - Government has decided to vaccinate for a selected area. Officers need an application to get the age of villagers and check the eligibility of vaccination.

Age	Eligibility
0-60 years	Not eligible
60 or more than 60	Eligible

NESTED TERNARY CONDITIONAL OPERATOR (?:)

- Can use multiple conditional expressions as a second or third part of Conditional expressions in ternary operator
- Similar to an if...else if statements

NESTED TERNARY CONDITIONAL OPERATOR (?:)

```
int x = 20, y = 20;
```

```
// If...else If Statement
```

```
string result;
```

```
if (x > y)
```

```
{
```

```
result = "x value greater than y";
```

```
}
```

```
else if (x < y)
```

```
{
```

```
result = "x value less than y";
```

```
}
```

```
else {
```

```
result = "x value equals to y";
```

```
}
```

```
//Nested Ternary Operator (?:)
```

```
result = (x > y) ? "x value greater than y" : (x < y)  
? "x value less than y" : "x value equals to y";
```


PROGRAMMING EXERCISE (HOME WORK)

- Write a C# Program to print the following output the Screen
 - Use Nested compound/ternary operator and User input to the age

Age	Category
0 to 12	Child
13-20	Teenagers
20 above	Adult

THE SWITCH STATEMENT



- The *switch* statement executes a set of logic depending on the value of a given parameter
- Types of the values a switch statement operates on can only be booleans, enums, integral types, and strings.

EXAMPLE

```
switch (myInt)
{
    case 1:
        Console.WriteLine("Your number is {0}.", myInt);
        break;
    case 2:
        Console.WriteLine("Your number is {0}.", myInt);
        break;
    case 3:
        Console.WriteLine("Your number is {0}.", myInt);
        break;
    default:
        Console.WriteLine("Your number {0} is not between 1 and 3.", myInt);
        break;
}
```

PROGRAMMING EXERCISE

- Write a program to print the Blood Types of the Blood Groups according to the following requirements.

Blood Group	Blood Type
A	A+ and A-
B	B+ and B-
AB	AB+ and AB-
O	O+ and O-
Any other value	Error

PROGRAMMING EXERCISE (HOME WORK)



- It's a time to select your Hogwarts houses according to your index number. With the modulation (Index Number % 4), you allocated for a house in following way.

Number	House
0	Gryffindor
1	Ravenclaw
2	Hufflepuff
3	Slytherin
Any other input	Error

Write a program with Index number as user input and show the respective House in output. Use Switch Statement.

THANK YOU

SEE YOU ON
NEXT WEEK