COMP 1202
Object Oriented Programming
Lab Session - Week 03 - Conditionals

Mehdi Azad

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Organization

My contact
- mehdi.azad@georgebrown.ca

Course Code
- Github: https://github.com/mabbasiazad/COMP1202

AtKlass
- code for this session: ****
- self-register: ****

Exampe 5-9

A company issues $1000.00 bonuses at the end of the year to all employees who have sold over $500,000.00 in products. Write a program that allows users to enter their sales figure. It determines whether a bonus is due and displays a message indicating whether a bonus is awarded.

Bonus table:

Sell amount	Bonus amount
0 - $500,000	0
more than $500,000	$1,000

usefule method for this example: Convert.ToDecimal() or Decimal.Parse()

Program Schema

Solution explorer:

Solution name	week02
Project name	BonusCalculator

Program hierarchy:

neamespace	BonusCalcProgram
class	Program
method	Main()

variable Table:

Name	Type	Description
inValue	string	user input
salesForYear	decimal	inValue converted to decimal
bonusAmount	decimal	can be 0m or 500,000.00m

Example 5-9 Solution (1)

```
string inValue;
decimal salesForYear;
decimal bonusAmount = 0M;

WriteLine("Do you get a bonus this year?");
WriteLine( );
WriteLine("To determine if you are due one,");
Write("enter your gross sales figure: ");
inValue = ReadLine( );
salesForYear = Convert.ToDecimal(inValue);
```

Example 5-9 Solution (2)

```csharp
if (salesForYear > 500000.00M)
{
WriteLine( );
WriteLine("YES. . .you get a bonus!");
bonusAmount = 1000.00M;
}
WriteLine("Bonus for the year: {0:C}", bonusAmount);
ReadKey( );
```

write a program that takes two numbers from the user and display the maximum number. hint: use double.Parse() to change the input form string to double.

Solution name	week03	**neamespace**	MaxNumberProgram
Project name	MaxNumber	**class**	Program
		method	Main()

Name	Type	Description
firstInValue	string	user first input
secondInValue	string	user second input
numberA	double	firstInValue converted to double
numberB	double	secondInValue converted to double
maxNumber	double	maximum of numberA and numberB

Conditional Statements

```
if (condition1)
{
  // block of code if condition1 is True
}
else if (condition2)
{
  // block of code if the condition1 is false and
     condition2 is True
}
else
{
  // block of code if the condition1 is false and
     condition2 is False
}
```

TryParse() - Optional

```csharp
string inValue;
inValue = Console.ReadLine();
int number;
bool success = int.TryParse(inValue, out number);
if (success)
{
    Console.WriteLine($"Converted '{inValue}' to
        {number}.");
}
else
{
    Console.WriteLine($"Attempted conversion of
        {inValue} failed.");
}
```

Example 5-9 modified

change the example 5-9 in such a way that if sales in more than 1,000,000.00 then the bonus will be 2000.00m

Bonus table:

Sell amount	Bonus amount
0 - $500,000	0
$500,000 - $1,000,000	$1,000
more than $1,000,000	$2,000

help: in the first condition use:

if ((salesForYear > 500000.00M) && (salesForYear < 1000000.00M))

for the second condition use: else if

Switch Statement (Optional)

```
switch (expression)
 {
    case value1:
        statement(s);
        break;
    case value2:
        statement(s);
        break;
    . . . // More case statements could go here

    [default:
        statement(s);
        break;]
 }
```

Example: Roman numbers (1)

```
switch (number)
{
    case 1:
        return "I";
    case 2:
        return "II";
    case 3:
        return "III";
    case 4:
        return "IV";
    case 5:
        return "V";
    case 6:
        return "VI";
```

Example: Roman numbers (2)

```
    case 7:
        return "VII";
    case 8:
        return "VIII";
    case 9:
        return "IX";
    case 10:
        return "X";
    default:
        return "Error: Value must be between 1 and
            10.";
}
```