**Topic 2: for Loop**

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**Content**

**Reading**

[Reading](https://dmacc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_102593_1&content_id=_7286878_1)

Input and Output (I/O)

* + Microsoft:docs.microsoft.com
    - [for](https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/for)
  + GeeksForGeeks: geeksforgeeks.com
    - [for](https://www.geeksforgeeks.org/loops-in-c-sharp/)
  + TutorialsPoint: tutorialspoint.com
    - [for](https://www.tutorialspoint.com/csharp/csharp_for_loop.htm)
  + W3Schools: w3schools.com
    - [for](https://www.w3schools.com/cs/cs_for_loop.asp)

**C# for loop**

[C# for loop](https://dmacc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_102593_1&content_id=_7286878_1)

https://youtu.be/DnNodDREr\_8

**for loop**

[for loop](https://dmacc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_102593_1&content_id=_7286878_1)

The for loop causes a statement(s) to repeat a known number of iterations.

* + With one statement
  + for (InitializationExpression; TestExpression; UpdateExpression)
  + statement;
  + With multiple statements
  + for (InitializationExpression; TestExpression; UpdateExpression)
  + {
  + statement;
  + statement;
  + ...
  + }
  + With one statement including curly braces { }
  + for (InitializationExpression; TestExpression; UpdateExpression)
  + {
  + statement;
  + }

It is always best to use curly braces { } even with one statement. It lends to readable code, as well as avoids errors if you (or a team mate) refactor(s) the code and adds more statements in the for loop. Déjà vu! You may have heard this before, *while* you might not be sure where, *if* you review previous topics, you might find it.

[**for loop quiz**](https://dmacc.blackboard.com/webapps/blackboard/content/launchAssessment.jsp?course_id=_102593_1&content_id=_7286900_1&mode=view)

This quiz covers decision conditions. It is not timed, you have 2 attempts.

This is 5 points

**Sum of Sales Practice**

[Sum of Sales Practice](https://dmacc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_102593_1&content_id=_7286878_1)

Create a Console App that uses a for loop to sum up 4 sales at the local coffee shop.



Declare and initialize a sum variable

for ( number of sales ) {

// Prompt user for input

// Get input

// Add to sum

}

Output sum with 2 decimal points precision

Try it out before looking at the solution: [Program.cs](https://dmacc.blackboard.com/bbcswebdav/pid-7286902-dt-content-rid-101466155_1/xid-101466155_1)

**String Processing**

[String Processing](https://dmacc.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_102593_1&content_id=_7286878_1)

You learned about char as a datatype, then used **string** class, which is comprised of char. You can access individual characters in the C# string using the index:

string color = "purple";

char letter;

for (int index = 0; index < name.Length; index++){ // note Length is a property of string

letter = color[index];

Console.WriteLine(letter.ToString()); //ToString is a method call

}

* + Note that the index starts at zero, not 1!
  + What does the code above do? Take a guess, then run the code.
  + Finish reading in your text other methods for char such as **isDigit()** and **ToLower()**, and for **string** such as **Contains()** and **IndexOf()**.
  + What type of problems can you solve with string processing?