JAVA PROGRAMMING 1

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# Unit 7 Lecture - Characters, Strings, & StringBuilder

Reading: Chapter 7

## String, StringBuilder, and StringBuffer Classes

*The StringBuilder and StringBuffer classes are similar to the String class except that the String class is* ***immutable****.*

*In general, the StringBuilder and StringBuffer classes can be used wherever a string is used. StringBuilder and StringBuffer are more flexible than String. You can add, insert, or append new contents into StringBuilder and StringBuffer objects, whereas the value of a String object is fixed once the string is created.*

String str = “Larry Bird”;  
str = str + “ is a Professional Basketball player.”;

#### // str gets recreated and rewritten

StringBuilder stringBuilder = new StringBuilder();  
stringBuilder.append("Welcome");

stringBuilder.append(' ');  
stringBuilder.append("to");  
stringBuilder.append(' ');  
stringBuilder.append("Java");

#### //stringBuilder can append new characters without recreating the value

## Immutable Objects and Classes

*You can define immutable classes to create immutable objects. The contents of immutable objects cannot be changed.*

*If a class is immutable, then all its data fields must be private and it cannot contain public setter methods for any data fields. A class with all private data fields and no mutators is not necessarily immutable.*

*For a class to be immutable, it must meet the following requirements:*

* *All data fields must be private.*
* *There can’t be any mutator methods for data fields.*
* *No accessor methods can return a reference to a data field that is mutable.*

## The this Reference

*The keyword* ***this*** *refers to the object itself. It can also be used inside a constructor to invoke another constructor of the same class.*