Java Guidance Material

Classes and Objects:

https://docs.oracle.com/javase/tutorial/java/javaOO/index.html

Read the following topics from the article "Classes and Objects"

- Classes
- Declaring Classes
- Declaring Member Variables
- Defining Methods
- Providing Constructors for Your Classes
- Passing Information to a Method or a Constructor
- Objects
- Creating Objects
- Using Objects
- More on Classes
- Returning a Value from a Method
- Using the this Keyword
- Controlling Access to Members of a Class
- Understanding Class Members
- Initializing Fields
- Summary of Creating and Using Classes and Objects

Interfaces and Inheritance :

https://docs.oracle.com/javase/tutorial/java/IandI/index.html

Read the following topics from the article "Interfaces and Inheritance"

- Interfaces
- Defining an Interface
- Implementing an Interface
- Using an Interface as a Type
- Evolving Interfaces

- Default Methods
- Summary of Interfaces
- Questions and Exercises
- Inheritance
- Multiple Inheritance of State, Implementation, and Type
- Overriding and Hiding Methods
- Polymorphism
- Hiding Fields
- Using the Keyword super
- Object as a Superclass
- Writing Final Classes and Methods
- Abstract Methods and Classes
- Summary of Inheritance

Strings

https://docs.oracle.com/javase/tutorial/java/data/strings.html

- Converting Strings to Numbers
- Comparing Strings and Portions of Strings
- StringBuilder Class
- Autoboxing and Unboxing
- Character

Numbers

https://docs.oracle.com/javase/tutorial/java/data/numberclasses.html

- The Numbers Classes

- Formatting Numeric Print Output

Generics

https://docs.oracle.com/javase/tutorial/java/generics/index.html

- Why Use Generics?
- Generic Types
- Raw Types
- Generic Methods
- Bounded Type Parameters
- Generic Methods and Bounded Type Parameters
- Generics, Inheritance, and Subtypes
- Type Inference
- Wildcards
- Upper Bounded Wildcards
- Unbounded Wildcards
- Lower Bounded Wildcards
- Wildcards and Subtyping
- Wildcard Capture and Helper Methods
- Guidelines for Wildcard Use
- Type Erasure
- Erasure of Generic Types
- Erasure of Generic Methods
- Effects of Type Erasure and Bridge Methods
- Non-Reifiable Types
- Restrictions on Generics