Baseline requirements:

The interns are expected to have **good understanding** of Java in term of:

* OOP concepts: Encapsulation, Inheritance and Polymorphism
* Object, Class, Interface, access modifiers (default, public, protected, private)
* Instance methods vs static methods; instance field vs static fields
* Language syntax and structures: Scope of variables, types, statements, operators, if/else, for loop, while loop, try/catch, etc

Whatever above you dont know or not sure about your knowledge, fill it up.

The Libraries and Frameworks:

* The standard JDK libraries

<https://en.wikipedia.org/wiki/Java_Class_Library>

* The Java EE libraries and frameworks

<https://en.wikibooks.org/wiki/Java_EE_Programming/Frameworks>

<http://docs.oracle.com/cd/E68505_01/wls/WLACH/taskhelp/library/LibraryOverview.html>

* Third-party libraries and frameworks

Intermediate language features:

* Enum, Static nested class,Non-static nested class

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

* Native types, auto casting and auto boxing/unboxing

<https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html>

<https://docs.oracle.com/javase/tutorial/java/data/index.html>

* Checked and unchecked exception, and how to handle them,Try-with-resources statements

<https://docs.oracle.com/javase/tutorial/essential/exceptions/index.html>

Advanced language features:

* Generics

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

<https://docs.oracle.com/javase/tutorial/extra/generics/index.html>

* Java 8 lambda and stream, and **functional** programming language concepts

<https://docs.oracle.com/javase/tutorial/java/javaOO/lambdaexpressions.html>

<https://docs.oracle.com/javase/tutorial/collections/streams/index.html>

Basic JDK libraries

* The java.lang package, System static methods, methods of Object class.

→ Google search for an overview of above

* Java Collection Framework: (Only need study about List, Set, Map)

<https://docs.oracle.com/javase/tutorial/collections/index.html>

* Java Date / Time / Calendar libraries (only need overview)

<https://docs.oracle.com/javase/7/docs/api/java/util/Calendar.html>

<https://docs.oracle.com/javase/8/docs/api/java/util/Date.html>

<https://www.tutorialspoint.com/java/java_date_time.htm>

Basic third-party libraries (only need an overview of this)

- Apache Commons <https://commons.apache.org/>

- Google search for some popular third-party libraries