OOP

* Polymorphism
  + Overriding
    - Covariant Return Type
    - final keyword
    - Variable overriding
    - Method overriding
  + Overloading
  + Runtime polymorphism or Dynamic Method Dispatch.
  + Upcasting / Downcasting
  + Static Binding (Early) and Dynamic Binding (Late)
* Inheritance
  + IS-A (Inheritance)
  + HAS-A (Aggregation)
  + Types
    - Single Inheritance
    - Multilevel Inheritance
    - Hierarchical Inheritance
    - Multiple Inheritance
  + this / super
* Encapsulation
  + Access Modifiers
    - Types of access modifiers
    - private constructor
  + Wrapper Classes
    - Boxing / UnBoxing
* Abstraction
  + Interfaces
    - Extending an interfaces.
    - Tagged / Marker interfaces.
    - Nested interface
  + Abstract Class
* Classes
  + Instance initializer block
  + Constuctors

Java basics

* Java Literals
* Variable Types - Local / Instance / Class/Static variables
* strictfp
* Create an method with n number of Strings
* Access Control Modifiers
* Non-Access Modifiers
* Loops
* Conditions
* String
* Package
* Enumeration
* BitSet
* static keyword / block
* call by reference / call by value
* creating java docs.

Exception handling

* Garbage collection
* Hierarchy of exception
* Types of exception - Checked / Unchecked / Error
* Try / catch / finally / finalize
* throw / throws
* Nested try conditions
* try with resources
* Custom Exception

Inner Classes

* Non-static nested classes
  + Member inner classes
  + Anonymous classes
  + Local Inner classes
* static nested class
* Nested interfaces
* Define an class within an interface.

Threads

* Multi-threading
  + Difference between multi-threading and multi-processing
* Life cycle of a thread. / Thread states
* Thread creation  - Implementations
* Thread scheduling
  + preemptive scheduling and time slicing
* thread sleep
* thread joining
* thread naming
* thread priority
* Daemon thread
* thread pool
  + ExecutorService and Executors.
* thread group
* shutdownHook
* Callable Interfaces and Futures
* Deadlock
* Synchronization
  + Types of Synchronization
  + Mutual Exclusive and Cooperation thread synchronization
  + Synchronized block
  + Inter-thread communication
    - wait
    - notify
    - notifyAll
  + Interrupting a thread.
* AutoCloseable

Generics

* Type Parameter Naming Conventions
* Bounded Type Parameters
* Multiple Bounds
* Comparable
* Comparator
* Generic Wildcards
* Implementing Iterable interface
  + Lower Bounded Wildcards - ? super T
  + Upper Bounded Wildcards - ? extends T
  + ?
* Erasure
* Non-Reifiable Types
  + Heap Pollution

Annotation

* Declare an Annotation
* @Retention
* @Target
* @Repeatable
* @Documented
* @Inherited

Internationalization and Localization

* ResourcesBundle class
* What are internationalization object available

Java,lang

* Class
* ClassLoader
* Enum
* InheritableThreadLocal
* Process
* ProcessBuilder
* Runtime
* SecurityManager
* StackTraceElement
* StringBuffer / StringBuilder
* System
* Cloneable Interface
* Annotations
  + Deprecated
  + Override
  + SafeVarargs
  + SuppressWarnings