

Java Core

1. OOP

- 1.1. OOP vs Function Style
- 1.2. Why ? (Visualize : A&D System...)

1.3. OOP Principles

- 1.3.1. Encapsulation
 - Access Modifiers, Get/Setters...
 - Modulization (Class, Method, Packages)
- 1.3.2. Inheritance
 - IS-A
 - Multiple Inheritance (NO)
 - Single, Multi Level, Hier
- 1.3.3. Abstraction
 - Abstract Class
 - Interface
 - IS-A vs HAS-A
- 1.3.4. Polymorphism
 - Overriding
 - Overloading

2. Data Processing

- 1.1. String (String, StringBuilder, StringBuffer), StringTokenizer). Immutable String, String Pool
- 1.2. Wrapper Class (Integer, Boolean....): primitive vs wrapper
- 1.3. Variable, Scope: instance, class (static), local
- 1.4. Date Time (Date Formater, Date Parser, Regex....)

3. Collection Framework

- 3.1. List, Set, Map (....)
- 3.2. Collection Sorting (Comparable, Comparator, Arrays sort(....))
- 3.3. Equals vs hashCode() (Set)
- 3.4. Arrays, Collection (Queue, Stack, LinkedList)

7. Unit Testing

- 7.1. Unit Test Principles, Test Case, Test Suite, Code Coverage
- 7.2. Junit (annotation....)

6. JDBC

- 6.1. Execute Query: PreparedStatement, Statement, CallableStatement, Connection, ResultSet
- 6.2. ResultSet
 - Process Data from ResultSet
- 6.3. Transaction Management
- 6.4. Batch Processing

5. Java IO

- 5.1. Read/Write Files (InputStream, OutputStream....)
- 5.2. Serialization (ObjectInput/OutputStream)

4. Exception Handling

- 4.1. try catch, finally, throw, throws
- 4.2. Custom Exception
- 4.3. Multiple Catching, try with resources
- 4. Common exceptions
 - Runtime
 - Compiled Time

8.2. Avoid Common Mistakes

- Object Creation
- Variable Declaration
- Exception Handling
- JDBC (Performance)

8.1. Java Coding Style => Java Documentation