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|  | **Course Contents** | | |
| 8.01 | Unit A | **Introduction to Object Oriented Paradigm** | |
| 8.02 | Unit A Topic 1 | Introduction: History, The meaning of Object Orientation, Features of Java, OOPs concepts | |
| 8.03 | Unit A Topic 2 | object identity, Encapsulation, information hiding, polymorphism, inheritance | |
| 8.04 | Unit A Topic 3 | Java virtual machine, Byte Code, Architecture of JVM, Class Loader, Execution Engine, Garbage collection, | |
| 8.05 | Unit B | **Introduction to Java** | |
| 8.06 | Unit B Topic 1 | Java development Kit (JDK),Introduction to IDE for java development, Setting java environment (steps for path and CLASSPATH setting) | |
| 8.07 | Unit B Topic 2 | Constants, Variables, Data Types, Operators, Expressions, Decision Making, | |
| 8.08 | Unit B Topic 3 | Branching, Loops, command line argument | |
| 8.09 | Unit C | **Class & Object** | |
| 8.10 | Unit C Topic 1 | Arrays, Type conversion & casting, Input from keyboard, Classes, Objects, Methods | |
| 8.11 | Unit C Topic 2 | Method overloading, Constructors, Constructors overloading, static keyword, | |
| 8.12 | Unit C Topic 3 | Introducing Access Control, String handling | |
| 8.13 | Unit D | **Inheritance, package and Interface** | |
| 8.14 | Unit D Topic 1 | Inheritance Implementation: Multilevel Hierarchy, Overriding methods, Polymorphism, use of this and super, Constructor call in inheritance | |
| 8.15 | Unit D Topic 2 | Abstract class and method, Final class, method and variable, Implementing Interface, Concept of multiple inheritance in Java, Wrapper class, | |
| 8.16 | Unit D Topic 3 | Packages: User defined packages, built-in packages (java.langpackage), Access modifiers, | |
| 8.17 | Unit E | **Exception and Multithreading** | |
| 8.18 | Unit E Topic 1 | Input/Output: Exploring java.io, File, Stream Classes: Byte Stream Classes and Character stream Classes, reading and writing in file | |
| 8.18 | Unit E Topic 2 | Exception Handling:Introduction, try, catch, finally, throw and throws,Checked and Unchecked exceptions, Java's Built-in Exception, Chained Exception. | |
| 8.20 | Unit E Topic 3 | Multithreading: Creating single and multiplethreads , Thread life cycle, Thread priorities, sleep method. | |
| Note : All experiment will be conducted on IDE (for example : Eclipse/ Netbeans) | | | |
| 10 | **Reading Content** | | |
| 9.1 | Text book\* | | 1. Schildt H, “The Complete Reference JAVA2”, TMH |
| 9.2 | other references | | 1. Balagurusamy E, “Programming in JAVA”, TMH. 2. Professional Java Programming:BrettSpell,WROX Publication. 3. Internet as a resource for reference |