**Core Java - TOC**

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| **Course Code** | **Course Name** | **Module Code** | **Module**  **Name** | **Duration** | **Session Code** | **Session Name** | **Session Duration**  **(in Mins)** | **Session Objective** |
| 3 | Java + UI + PHP | 3.2 | Core Java | 40  Hours | 3\_2\_01 | Getting started  with OO | 90 | 1. Concepts of OOPS  2. Relating Object oriented  approach to real world |
|  |  |  |  |  | 3\_2\_02 | Classes, Objects  & Constructors | 90 | 1. Create Class and Object  2. Create di\_erent types of Constructors  3. "this" keyword |
|  |  |  |  |  | 3\_2\_03 | Classes, Objects  & Constructors  practice | 90 | Students will work on given  practice assignments |
|  |  |  |  |  | 3\_2\_04 | Class Design  & Encapsulation | 90 | 1. Encapsulation  2. Applying encapsulation  for Java classes |
|  |  |  |  |  | 3\_2\_05 | Class Design &  Encapsulation  practice | 90 | Students will work on given  practice assignments |
|  |  |  |  |  | 3\_2\_06 | Packages and  Access Modifiers | 90 | 1. Need of packages  2. Create Packages  3. Access modi\_ers |
|  |  |  |  |  | 3\_2\_07 | Packages and  Access Modifiers  practice | 90 | Students will work on given  practice assignments |
|  |  |  |  |  | 3\_2\_08 | Inheritance &  Polymorphism | 90 | 1. Inheritance and its types  2. Dynamic polymorphism  3. Static polymorphism |
|  |  |  |  |  | 3\_2\_09 | Inheritance &  Polymorphism  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_10 | Abstract Classes  & Interfaces | 90 | 1. Introduction to abstraction  2. Abstract methods and classes  3. Introduction to interfaces  4. Implementing abstract class  and interfaces |
|  |  |  |  |  | 3\_2\_11 | Abstract Classes  & Interfaces  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_12 | Exception  Handling | 90 | 1. Exceptions  2. try, catch block  3. throw and throws  4. custom exceptions  5. finally  6. common exceptions |
|  |  |  |  |  | 3\_2\_13 | Exception Handling  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_14 | Threads | 90 | 1. Understand threads  2. Types of threads  3. Life cycle of threads |
|  |  |  |  |  | 3\_2\_15 | Threads Practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_16 | Ad. Concepts  of threading | 90 | 1. Synchronization  2. Dead locks |
|  |  |  |  |  | 3\_2\_17 | Ad. Concepts  of threading  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_18 | Basics of  Collection  Framework | 90 | 1. Understand Collection Framework  2. Collection Interfaces and  their implementation classes  3. Iterator, Comparator and  Comparable |
|  |  |  |  |  | 3\_2\_19 | Basics of  Collection  Framework  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_20 | Generics and  Legacy classes | 90 | 1. Generic Collections  2. Legacy classes  3. Utility classes |
|  |  |  |  |  | 3\_2\_21 | Generics and  Legacy  classes practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_22 | Java IO | 90 | 1. Streams and IO Streams  2. Byte Stream and  Character Stream  3. Input and Output  Readers  4. Read or Write data  to/from \_les |
|  |  |  |  |  | 3\_2\_23 | Java IO practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_24 | Ad. Java IO | 90 | 1. Types of Streams  2. Methods of Streams |
|  |  |  |  |  | 3\_2\_25 | Ad. Java IO  practice | 90 | Students will work on  given practice assignments |
|  |  |  |  |  | 3\_2\_26 | Assessment | 90 | Students will take  online/online assessment |