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| **Intro of Java** | * Introduction to Eclipse, Writing Java programs, Basic programming * structure of Java |
| **Control Statements** | * Control Structures in JAVA |
| **Loops, Classes and Objects** | * Loops in JAVA * Objects & Classes in JAVA * Creating a Class and its object * Initializing the value of Objects |
| **Methods** | * Methods in Java * Basic Structure * Static Vs nonStatic methods |
| **Arrays** | * Arrays in Java * Basic Structure of declaration and initialization * 2D Arrays * Practice programs |
| **Constructor** | * Constructors in Java * Difference B/w method and constructor * Default and parametrize constructors |
| **Encapsulation** | * Encapsulation * Setters and getters * Public, private and protected variables |
| **Object Passing** | * Object passing * Equal methods |
| **Inheritance** | * Implementing Inheritance * Use of super keyword * Implementing parent and child classes |
| **Polymorphism** | * Runtime polymorphism * overriding |
| **Abstract Class** | * Abstract classes * Implementing abstract classes, super and sub-classes |
| **Interface** | * Interfaces * Multiple Inheritance using interface |
| **Exception Handling, GUI** | * Exception handling(try catch, multiple try catch) * Graphical User Interface |

**Lab Contents**