# **BG Logo with Name (1).png**

**Syllabus**

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| --- | --- | --- | --- | --- | --- |
| **Course Name** | **Duration** | **Hours per Week** | | | **Total** |
| **L** | **T** | **P** | **Hrs** |
| **Advance Java** | **65 Days (1 hour)****45 Days(1.5 hour)****30 Days(2 hours)** | 6 | 2 | 4 | 6 |

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# **Advance Java**

**Learning Objectives:**

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| **S.No.** | **Learning Objectives** |
| 1 | Increases the advance java skills. |
| 2 | Work with Powerful development tools e.g., Eclipse, Net beans. |
| 3 | Candidate can apply core java concepts here to Built applications. |
| 4 | Going to be familiar with database and designing. |
| 5 | Provides Proper User Interface In Learning Advance Concepts |

**After completion of this course the students shall able to:**

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| **S.No.** | **Learning Outcomes** |
| A. | Start web application development through Servlet and JSP. |
| B. | Go for Framework (Hibernate, Spring). |
| C. | Understand Client-Server Architecture. |
| D. | Able to apply the advance concepts to develop the applications. |
| E. | Develop good program to handle exceptions and errors in program. |

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| **PREREQUESTIES** | Knowledge of Core Java |

**CONTENT OF ADVANCE JAVA TRAINING COURSE**

|  |  |
| --- | --- |
| 1 | **Core Java Revision** |
| 2 | **Wrapper Classes**   * Auto Boxing * Auto-UnBoxing |
| 3 | **Collection Framework**   * Introduction to Collection Framework * Interface in Collection Framework * Classes in Collection Framework * Concept of Comparable, Comparator * Cursor |
| 4 | **Structured Query Language**   * Introduction * Data Definition Language * Data Manipulation Language * Concept of Joins |
| 5 | **JDBC**   * Introduction to JDBC * Introduction to JDBC Drivers * Types of JDBC Drivers * Connectivity |
| 6 | **Statement v/s Prepared Statement v/s Callable Statement, Meta Deta** |
| 7 | **HTML**   * Introduction * Basic Tags * Form Design |
| 8 | **CSS**   * Introduction * Types of CSS |
| 9 | **JavaScript**   * Introduction * Basic Concepts * JavaScript Pop-Up * Functions * Events * Validations |
| 10 | **Web Application**   * Introduction * Types of server * Http Methods * Client Server Architecture * Common Gateway Interface |
| 11 | **Servlet**   * Introduction to Servlet * Life Cycle of Servlet * Types of Servlet * Basic Servlet with Coding * About configuration file(web.xml) |
| 12 | **Reading Input Parameter, ServletConfig, ServletContext** |
| 13 | **JDBC in Servlet**   * CRUD Operation |
| 14 | **Request Dispatcher and Filter** |
| 15 | **Session Management**   * HttpSession * Cookie * URL ReWriting * Hidden Form Field |
| 16 | **Java Server Page(JSP)**   * Introduction * Difference between Servlet and JSP * Scripting Elements * Implicit Objects * Directives * Actions Tags |
| 17 | **JDBC in JSP**   * CRUD Operation |
| 18 | **Java Bean class VS POJO class** |
| 19 | **MVC with example (including File Uploading)** |
| 20 | **Session Handling and Cache Control** |
| 21 | **JSON** |
| 22 | **Ajax** |
| 23 | **Project Work** |
| 24 | **Struts**   * Introduction to Struts * Architecture of Struts * Features of Struts * First Struts Example * Struts Tags * DOJO Tags |
| 25 | **Model Driven, Preprable** |
| 26 | **JDBC Integration** |
| 27 | **Email Sending** |

**MODULE WISE COMPLETING TOPIC HOURS WISE**

|  |  |  |
| --- | --- | --- |
| **Module No.** | **Topics** | **Hours** |
| 1 | **Core Java Revision** | **1** |
| 2 | **Wrapper Classes** | **2** |
| 3 | **Collection Framework** | **5** |
| 4 | **Structured Query Language** | **3** |
| 5 | **JDBC** | **5** |
| 6 | **Statement v/s Prepared Statement v/s Callable Statement, Meta Deta** | **1** |
| 7 | **HTML** | **2** |
| 8 | **CSS** | **2** |
| 9 | **JavaScript** | **4** |
| 10 | **Web Application** | **2** |
| 11 | **Servlet** | **3** |
| 12 | **Reading Input Parameter, ServletConfig, ServletContext** | **2** |
| 13 | **JDBC in Servlet** | **4** |
| 14 | **Request Dispatcher and Filter** | **2** |
| 15 | **Session Management** | **3** |
| 16 | **Java Server Page(JSP)** | **6** |
| 17 | **JDBC in JSP** | **3** |
| 18 | **Java Bean class VS POJO class** | **1** |
| 19 | **MVC with example (including File Uploading)** | **2** |
| 20 | **Session Handling and Cache Control** | **1** |
| 21 | **JSON** | **2** |
| 22 | **Ajax** | **2** |
| 23 | **Project Work** | **--** |
| 24 | **Struts** | **3** |
| 25 | **Model Driven, Preprable** | **2** |
| 26 | **JDBC Integration** | **1** |
| 27 | **Email Sending** | **1** |