# 20CS21SC - APPLICATION DEVELOPMENT USING JAVA PROGRAMMING

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| Course Category: | Program Core | Credits: | 2 |
| Course Type: | Skill Oriented | Lecture-Tutorial-Practical: | 1-0-2 |
| Prerequisite: | Basic knowledge of programming fundamentals. | Sessional Evaluation:  Univ. Exam Evaluation:  Total Marks: | 40  60  100 |
| Objectives: | * To strengthen the ability to identify and apply the suitable object-oriented concept for the given real-world problems. * To develop skills to create the applications in java. | | |

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| Course Outcomes | After the completion of this lab, the students will be able to learn and develop various applications using core concepts of Java. |
| Course Content | Session-1   * Installation of Java software, study of any Integrated development environment. * Discuss about JAVA BUZZ WORDS, Data Types, Input-Output functions, Types of Variables, Key Words.   Session-2   * Discuss about Control Flow Statements. * Discuss about Access Specifiers, Arrays, Strings.   Session-3   * Discuss about OOPS Concepts. Creation of Classes and Objects. * Discuss About Main Method, Command Line Arguments, this Keyword.   Session-4   * Implementation of Overloading Concept. * Implementation of Inheritance Concept.   Session-5   * Discuss about Super Keyword. * Implementation of Overriding Concept. * Implementation of Abstract Methods & Abstract Classes.   Session-6   * Implementation of Interfaces. * Implementation of Exception Handling.   Session-7   * Implementation of User Defined Packages. * Discuss About Threads and Methods of a Thread class.   Session-8   * Introduction to Applets and Applet Life Cycle. * Discuss Color and Font Classes. * Implement Graphics Class & Methods.   Session-9   * Implement Event-Handling * Mouse-Events. * Key-Events.   Session-10   * Implementation of AWT Controls * Label, Button * Check Box, Check Box Group * Choice, List   Session-11   * Discuss About Multithreaded Programming. * Discuss About String Handling in Java.   Session-12   * Discuss About Java Database Connectivity. * JDBC Environment Setup, JDBC Database Connections. * Creation of JDBC Application. |
| Text Books &  References  Books | **REFERENCE BOOKS:**   1. Java: The Complete Reference, 10th Edition, Herbert Schildt TMH, Indian Edition. 2. An introduction to java programming and object-oriented application development, R A Johson-Thomson. |
| E-Resources | 1. <https://nptel.ac.in/courses> 2. <https://freevideolectures.com/university/iitm> 3. [www.javatpoint.com](http://www.javatpoint.com) |

**CO-PO Mapping:** 3-High Mapping, 2-Moderate Mapping, 1-Low Mapping, - -Not Mapping

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|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | 3 | 2 | 3 | - | 2 | - | - | - | - | - | - | 2 | 3 | - | 2 |