# 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: | 4060100 |
| 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.
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| Text Books &ReferencesBooks | **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.
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| E-Resources | 1. <https://nptel.ac.in/courses>
2. <https://freevideolectures.com/university/iitm>
3. [www.javatpoint.com](http://www.javatpoint.com)
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**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 |