Course	Course Name	L-T-P -	Year of
code		Credits	Introduction
CS333	APPLICATION SOFTWARE DEVELOPMENT LAB	0-0-3-1	2016

**Pre-requisite : CS208** Principles of Database Design

## **Course Objectives**

- To introduce basic commands and operations on database.
- To introduce stored programming concepts (PL-SQL) using Cursors and Triggers.
- To familiarize front end tools of database.

## List of Exercises/Experiments: (Exercises/experiments marked with \* are mandatory. Total 12 Exercises/experiments are mandatory)

- 1. Creation of a database using DDL commands and writes DQL queries to retrieve information from the database.
- 2. Performing DML commands like Insertion, Deletion, Modifying, Altering, and Updating records based on conditions.
- 3. Creating relationship between the databases. \*
- 4. Creating a database to set various constraints. \*
- 5. Practice of SQL TCL commands like Rollback, Commit, Savepoint.
- 6. Practice of SQL DCL commands for granting and revoking user privileges.
- 7. Creation of Views and Assertions \*
- 8. Implementation of Build in functions in RDBMS \*
- 9. Implementation of various aggregate functions in SQL \*
- 10. Implementation of Order By, Group By& Having clause. \*
- 11. Implementation of set operators, nested queries and Join queries \*
- 12. Implementation of various control structures using PL/SQL \*
- 13. Creation of Procedures and Functions \*
- 14. Creation of Packages \*
- 15. Creation of database Triggers and Cursors \*
- 16. Practice various front-end tools and report generation.
- 17. Creating Forms and Menus
- 18. Mini project (Application Development using Oracle/ MySQL using Database connectivity)\*
  - a. Inventory Control System.
  - b. Material Requirement Processing.
  - c. Hospital Management System.
  - d. Railway Reservation System.
  - e. Personal Information System.
  - f. Web Based User Identification System.
  - g. Timetable Management System.
  - h. Hotel Management System.

## **Expected Outcome**

The students will be able to

- i. Design and implement a database for a given proble\\\\musing database design principles.
- ii. Apply stored programming concepts (PL-SQL) using Cursors and Triggers.
- iii. Use graphical user interface, Event Handling and Database connectivity to develop and deploy applications and applets.
- iv. Develop medium-sized project in a team.