Database Analyst

Class: B.Sc. I

DURATION: Six Months

Name of Co-ordinator: Ms. Atar R.U.

Department of Computer Science (NG)

1. Title: Database Analyst
2. Year of implementation: 2020

Structure of Skill Development Course

Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
20	30	50	03	30

Syllabus

Learning Objectives:

1. To understand how to write and manage database.
2. To learn PL/SQL Structure and implementation.
3. To develop efficient PL/SQL programs to access Oracle databases.
4. To manage data retrieval with cursors and cursor variables.

Theory Syllabus (20 Hrs)

Unit I: Managing Tables and Data

Creating and Altering Tables (Including constraints), Data Manipulation Command like Insert, update, delete. SELECT statement with WHERE, GROUP BY and HAVING, ORDER BY, DISTINCT, Special operator like IN, ANY, ALL BETWEEN, EXISTS, LIKE, Join, Built in functions

Unit II: Introduction to PL/SQL

SQL v/s PL/SQL, PL/SQL Block Structure, Language constructs of PL/SQL (Variables, Basic and Composite Data type, Conditions looping etc.), % TYPE and % ROWTYPE Using Cursor (Implicit, Explicit), trigger

Practical Syllabus (30 Hrs)

1) SQL* formatting commands

2) To create a table, alter and drop table.

3) To perform select, update, insert and delete operation in a table.

4) To make use of different clauses viz where, group by, having, order by, union and intersection,

5) To study different constraints.

6) To use oracle function viz aggregate, numeric, conversion, string function.

7) To understand use and working with joins.

8) To make use of transaction control statement viz rollback, commit and savepoint.

9) To understand working with PL/SQL

10) To implement Cursor on a table.

Project/ Field Visits/ Industrial Visit----------06 hr

Learning Outcomes: Student will be able to

1. Create and manage database.
2. Use built-in functions successfully.
3. Demonstrate using stored procedures, cursors, and transactions.
4. Enhance Programming and Software Engineering skills and techniques using SQL and PL/SQL.

Recommended Books:

1) VikramVaswani , The Complete Reference MySQL , McGraw Hill Educations,2004.
2) Baron Schwartz, High Performance MySQL, O'Reilly,2012.
3) Ivan Bayross, "SQL,PL/SQL -The Programming language of Oracle",B.P.B.Publications

BOS Sub Committee:

Syllabus Committee:		Expert Committee:
1. Ms. Atar R.U.	Member	1. Dr.KavitaOza(Shivaji University, Kolhapur)
2. Ms. Mane A.V.	Member	2. Mr JaidipKumar(Symbiosis College, Pune)