## **Title of Skill Course: Basics in Database Analyst**

1. Department: Department of Computer Science Optional

2. Title: Basics in Database Analyst3. Sector: Information Technology

4. Eligibility: B.Sc. I

**5. Year of implementation:** 2022

### Course Structure

| Skill Level | Theory Hours | Practical<br>Hours | Total<br>Hours | Credits | No. of students in batch |
|-------------|--------------|--------------------|----------------|---------|--------------------------|
| 4           | 10           | 05                 | 15             | 01      | 30                       |

## **Syllabus**

# **Course Objectives:**

1. To understand how to write and manage database.

2. To learn PL/SQL Structure and implementation.

| UNIT NO.  | SEMESTER-I<br>SECCST 101  | No. of hours per unit/credits |
|-----------|---|-------------------------------|
| UNIT - I  | Role and Responsibility   | (04)                          |
|           | What is Database Analyst, work of a Data Analyst in the industry, Data Analyst Job Requirements, Skills of a Database Analyst-Technical, Leadership skill, Project management skills, Core and Soft skills, Key Roles and Responsibilities, Database Analyst vs. Data Analyst, Database Analyst vs. Database Administrator.   |                               |
| UNIT - II | Technical Knowledge   | (06)                          |
|           | Introduction to database and RDBMS - Database Objects, Database Tables, Table Records, Types of Database Management Systems, Install Database Engine - Download MS SQL Server or Oracle or MySQL Database Engine, and Install, Introduction to SQL, SQL Datatype, SQL Operator, SQL Comments, Constraints in SQL, SQL Data Definition Language Commands - CREATE, ALTER, DROP, TRUNCATE, and Rename, Data Manipulation Language Commands - SELECT, INSERT, UPDATE, and DELETE, DCL commands - GRANT and REVOKE. |                               |

#### **Course Outcomes:**

- 1. Use built-in functions successfully.
- 2. Enhance Programming and Software Engineering skills and techniques using SQL and PL/SQL.

## **Reference Books:**

- 2) 1. "Database Systems, Concepts, Design and Applications" by S.K.Singh, Pearson Education.
- 3) 2. "Database Management Systems" by Raghu Ramakrishnan, Johannes Gehrke, McGraw Hill Publication.
- 4) 3. "Fundamentals of Database Systems" by Elmsari, Navathe, 5th Edition, Pearson Education (2008).

|   | Practical  | No. of hours per (05) |
|---|--|-----------------------|
| 1 | Install Database Engine – Oracle.                |                       |
| 2 | Perform Data Definition Language Commands.       |                       |
| 3 | Demonstrate Data Manipulation Language Commands. |                       |
| 4 | Implement Data Control Language Commands         |                       |
| 5 | Apply different Constraints on database tables   |                       |

## **BOS Sub Committee:**

| Sr. No. | Name of Member       | Designation       | Address                      |
|---------|----------------------|-------------------|------------------------------|
| 1.      | Ms. D. B. Jangam     | Chairman          | YCIS, Satara                 |
| 2.      | Ms. V. N. Pawar      | Member            | YCIS Satara                  |
| 3.      | Dr. Poonam Ponde     | Academic Expert   | Nowrosji Wadia College, Pune |
| 4.      | Ms.Shraddha Sonawane | Industrial Expert | Cognizant Solution, Pune     |