Department of Liberal Education
Era University, Lucknow
Course Outline
Effective From: 2023-24

Name of the Program	**B.A. / B.Sc. (LIBERAL EDUCATION)**			**Year/ Semester:**	**2nd /3rd**
Course Name	**Data Base Management Systems Lab**	**Course Code:**	**CS201P**	**Type:**	**Practical**
Credits	**01**			**Total Practical Hours:**	**30**
Evaluation Spread	**Internal Continuous Assessment:**	**10 Marks**		**End Term Exam:**	**15 Marks**
Type of Course	○ Compulsory	◉ Core		○ Creative	○ Life Skill
Course Objectives	• To explain basic database concepts and how to implement the DDL and DML commands in SQL. • To practice the designing, developing and querying a database. • To develop an understanding of essential DBMS concepts such as joins, union, intersection and also concept of sub-query, Data constraints. • To demonstrate the concept of creating Views, Indexes and Introduction to PL/SQL				

Course Outcomes (CO): *After the successful course completion, learners will develop following attributes:*

Course Outcome (CO)	Attributes
CO1	Able to create and alter databases, tables and writing a query using SQL DML/DDL commands.
CO2	Able to design and implement a database schema for given problem.
CO3	Able the normalization techniques for development of application software to realistic problems.
CO4	Able to formulate queries using SQL DML/DDL/DCL commands.
Pedagogy	Interactive, discussion-based, student-centered, program outputs.
Internal Evaluation Mode	Experiment-Writing and Conductance File Maintenance/ Laboratory Record Continuous Attendance and Participation

Practical No.	Experiments	Contact Hours	Mapped CO
1.	• Create a Table Student_records (Student_RollNo, Student_Name, Father's Name, Branch, Section, Year) and insert a minimum 10 records in this Student_records Table with Primary Key (Student_RollNo). • Create a Table ITEM (Item_code, Item_name, Item_qty,Item_price,Item_ManufacturingDate).Find the following query in SQL: a. Find Item_name from this table b. Find the Items which have Price between 1000 and 5000. c. Find Total Number of Items of this table.	4	**CO1, CO2**
2.	• Given a Table Department_Information: **Department_I** | **Department_Na** | **Department_Locat**	6	**CO2**

	<table><tr><th>D</th><th>me</th><th>ion</th></tr><tr><td>101</td><td>MCA</td><td>AA</td></tr><tr><td>102</td><td>MBA</td><td>CC</td></tr><tr><td>103</td><td>B. Tech</td><td>BB</td></tr><tr><td>104</td><td>B. Pharma</td><td>DD</td></tr><tr><td>105</td><td>B. Arch</td><td>FF</td></tr><tr><td>106</td><td>BCA</td><td>GG</td></tr></table> Find the following query in SQL: a. Change the Location of Department, B.Pharma from DD to MM. b. Delete a Record form this table which has Department_Location=GG. c. Add a Column Department_Phone No in this table. d. Add a Column Department_Address in this table e. Delete a column Department_Location from this table. • Create a Table Employee_info: (Emp_id,Emp_Name,Emp_City,Emp_Contact_No,Emp_Salary,Emp_Designation) Find the following query in SQL: f. Find the name and salary of all employees. g. Find the name of the employee whose name starts from the alphabet 'A'. h. Find the name of an employee who has a salary more than 50000. i. Find the name of the employee which belongs to 'NOIDA' city. j. Find the name of an employee which has a salary <170000.		
3.	• Create a Table Employee_Salary: (Emp_id,Emp_Name,Emp_Salary,Emp_Designation) Find the following query in SQL: a. Find the name of employee which is getting minimum salary b. Find the name of employee which is getting Maximum salary c. Find the name of an employee who has a salary more than 10000. d. Find the name of employee which has salary >25000 e. Find the Total Salary of all Employees. • Create three relation: Emp_detail (Emp_id, Emp_name, Emp_street, Emp_city),Works (Emp_id, Company_id, Salary) Located_in (Company_code, Company_name, Company_city) Write the Following Query in SQL: f. Name of the employee who works in a company named "HCL". g. Find name of the employee who works for the company located at "Saharanpur" h. Name of employee who works for a company located at city, in which they live	**6**	**CO3**

4.	• Write a Program to Create, update, drop, and alter view Operation. • Program in SQL to implement the Concept of Data constraints (Unique Key, Primary Key, Foreign Key).	6	**CO2, CO4**
5.	• Introduction to PL/SQL. • Write a Program in PL/SQL to print 1 to 10 using a while loop. • Write a Program in PL/SQL to find out the square of a number.	8	**CO3, CO4**

CO-PO and PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	1	2		1		3	3	2	2	2	2	2	3	1
CO2	1	3	1	1	1	1	1	2	1	2	1	1	2	3
CO3	2	1	1	1	1		1		2	1	1	3	2	2
CO4	2	1				2	2	2	2	3	3	2	1	1

Strong contribution-3, Average contribution-2 , Low contribution-1,

Suggested Readings:

Reference Books	1. Data base System Concepts, Silberschatz, Korth, McGraw hill, USA, 6th edition, 2011. 2. Elmasri, Nawathe, Fundamentals of Database Systems‖, Addison Wesley.
E-Resources	• https://archive.nptel.ac.in/courses/106/105/106105175/ • https://archive.nptel.ac.in/courses/106/106/106106220/

Internal Practical Evaluation:

Component	**Marks**
Experiment-Writing and Conductance	5
File Maintenance/ Laboratory Record	2
Continuous Attendance and Participation	1
Viva-Voce	2
Total Marks	10

Course created by: Dr. Mohd Haleem

Signature:

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