

National University of Computer & Emerging Science
Department of Computer Science, Lahore
CL203: DATABASE SYSTEMS LAB
LAB OUTLINE
Spring 2022

Grading Scheme

Project	25%
In Lab/Post Lab Assignments	15%
Mid Term	20%
Final	40%

Grading:

- Grading shall be absolute. Minimum eligibility to pass this course is to get 50% marks.
- Academic integrity is expected of all the students. Plagiarism or cheating in any assessment will result in at least an **F** grade in the course, and possibly more severe penalties.

Lab	Topics	Outcome	Project
1	SQL Server 2008 Import/Export - Tables Definition through Design view - Getting to know SQL Server 2008 Import Export - Data population through Query & Design view - Data Import from Files i-e Flat file, excel	After this lab students will be able to import and export data between files and SQL server. They will also be able to design tables using Design view of SQL server	Project Announcement
2	SQL DML/DDL - SQL Queries - Table creation - Data Insertion / Deletion / Updating Query - Applying Foreign Key/Null/Auto increment constraint - Selection Query	Students will be able to create tables, insert/delete/update data in tables and select the data using query. Students will also be able to add FK and PK and constraints on tables	
3	SQL JOINS -SQL Simple queries and Joins -Joins & types (inner, outer, cross) Union, Intersection, difference	Students will be able to perform joins on two or more tables and learn difference between different kinds of join	Proposal Submission Deliverable-1 Announcement (Schema Design)
4	SQL Aggregation Aggregation. Group By, Order By	Students will be able to perform joins on two or more tables, and use aggregation functions	Deliverable-1 Submission
5	SQL Nested Queries & ASP.NET CSS Templates - Advanced SQL (<u>Nested</u> and Sub Query) - Implementation of existing CSS Template in asp.net project	Students will be enable to use nested and sub queries after this lab. They will also get a know-how of CSS templates.	
6			Deliverable-2

	Stored Procedures, Triggers <ul style="list-style-type: none"> - Stored Procedure - Triggers and its Types - Views 	Students will be able to create and use triggers views and stored procedures after this lab.	Announcement (Stored Procedures)
7	Views		Deliverable-2 Submission
	Midterm		
8	Introduction to HTML & CSS Functionality <ul style="list-style-type: none"> - Practice using Visual Studio Website project - Introduction to server side development in asp.net 		Deliverable-3 Announcement (GUI)
9	Introduction to ASP.NET & Javascript <ul style="list-style-type: none"> - JavaScript Basic Tutorial/Client side validation - Introduction to ASP.NET - Implementation of 3- Tier architecture in asp.net - Practice using Visual Studio Website project 	Students will be able to style their ASP.net forms using CSS sheets, and use JavaScript client side validation	Deliverable-3 Submission
10	ASP.NET Grid Control Operations & Triggers <ul style="list-style-type: none"> - ASP grid View Control, Insert, Update, Delete and Select through grid control - SP/UDF/Trigger Calls from ASP.net Database connectivity in asp.net 	This lab will enable the students modify data in SQL server tables through ASP.net project. They will be able to use SP, views and UDF's in ASP.net projects And connect ASP.net project with SQL server	
11	Transactions & Advance Concepts <ul style="list-style-type: none"> -Introduction to Transactions - Parameter Passing between pages, Session Variables, Basic Caching -Database optimization technique -SQL Injection 	The students will get the know-how of transactions. They will also learn how to implements sessions, parameter passing and caching in their projects.	
12	Introduction to ERWIN & DB Connectivity <ul style="list-style-type: none"> - Creating Relational model using ERWIN - 	Students will be able to create Relational model in Erwin after completing this lab.	