ADVANCED DATABASES

Lab Work 1 (lab 1-5) – Submission Instructions

The diagrams required are relational models only, not ER diagrams. A relational model show sthe tables, the fields of each table, the primary key of each table (underlined) and the foreign keys. Example:

Table Students

StudentID	StudentName	StudentAge	StudentAddress

Table Marks

StudentID (FK -> Students.studentID)	CourseID (FK -> Courses.CourseID)	Marks

Table Courses

Course ID	CourseName	CourseDate

You can use any tools (or drawings) you like as long as your diagram has the above information.

Lab 1

Exercise 1. Submit a document with the relational diagram and a quick explanation

Exercise 2. Submit a document, the create table statements and a justification of your answer for the second part

Exercise 3. Submit a document with the relational diagram and any explanation you feel it could be required to explain your assumptions and design choiecs.

Lab 2

Exercise 1. Submit a document with the relational diagram and a quick explanation

Exercise 2. Submit a diagram of the normalized DB, your SQL code, the answer to the question and any explanation you feel it could be required to explain your assumptions and design choiecs.

Lab 3

Exercise 1. Submit a document with your answers

Exercise 2. Submit not only the final B-tree but also the status of the B-tree after each insertion

Exercise 3. Submit the SQL code including your TRIGGERS

Lab 4.

Submit the document "Query optimization" filled with your answers

Lab 5

Exercise 1. Submit the dimensional model (a relational diagram is fine) with an explanation of your design choices

Exercise 2. Submit the dimensional model + a description of the business process modeled + an explanation of the diagram + the two sample SQL queries.