SQL Server Project Requirements sheet

Project Title:

Examination System Database.

System requirements:

- System should provide question pool, so instructor can pick an exam from it.

- Questions type may be Multiple choice or True & false.

- For multiple choice questions system should store correct answer and check student answer and store his result.

- System should store courses information (Course name, description, Max degree, Min Degree...), instructors information, and students information, each instructor can teach one or more course, and each course may be teacher by one instructor in each class (Instructor may be changed for other class in other year).

- Instructor can edit (add, Update and delete) question pool in his course only.

- Instructor can make Exam (For his course only) by selecting number of questions of each type, the system selects the questions random, or he can select them manually from question pool. And he must put a degree for each question on the exam, and total degrees must not exceed the course Max Degree (One course may has more than one exam).

- For each exam, we should know type (exam or corrective), course, start time, End time, total time.

- System should store each exam which defined by year, Course, instructor.

- Instructor can select students that can do specific exam, and define Exam date, start time and end time. Students can see the exam and do it only on the specified time.

- System should store students answer for the exam and calculate the correct answers, and calculate final result for the student in this course.

- Insert test data in all tables and test your system.

Technical requirements:

- Implement your database in files and files groups according to data size and your estimation.

- Choose the right datatype for each column, and use naming conventions in naming of all objects.

Project Deliveries:

- System ERD (Image or Word format).

- Database Files.

- SQL Server solution that has one script file for all database structure, objects and data.

- Text file containing name and brief description for all objects in DB (Views, Proc, Functions, Triggers,…..).

Project Requirements and Evaluation:

- Database Design and ERD.

- Implementing Database performance (Data types, files, file groups,…).

- Implementing data access and Business logic (Views, Procedures, functions,….).

- Overall performance & Integration.

- Overall Error handling.

- Data Integrity validation (Constraints, Triggers, Data types,…).

- Using most of course main topics.

Project Deadline:

- Saturday 3:30 pm.