INSTRUCTIONS

1. Each student will present his/her own project and will be responsible for checking the notice board for the date of presentation.

As part of the CISY 423/BBIT 432 course you will design and develop a database project. The project will be divided into three parts. There will be a project specification phase, database design phase and implementation phase. Once you have decided on a project and submitted an E-R diagram for that project, you will not be allowed to change the project. All subsequent phases of the project will build upon the first phase.
During the project specification phase, you are required to identify a realistic project and decide on the scope of your project. If you come up with a unique project, it will avoid relative grading with respect to those who do the same.

Total marks: 40

Question:

Design and develop database projects that are not limited to the following Industries:

- University
- School
- Restaurant
- Hospital
- Pharmacy
- Personnel
- Bus service
- Hotel Management
- SACCO
- Garage

- Research Lab
- Car Hire Service
- Estate Management
- Insurance Brokerage
- Shop/Supermarket

Your project should contain **at least 8 tables.** Think about the various constraints you can have and select the primary keys for all the tables appropriately. Usually the more complex and bigger the scope of your project, the better your prospects of getting good marks.
In the second part of the project make sure your database is well designed.
In the implementation phase, each student will take their design and do the following with it:

1. Translate all the Entities and Relationships in your E-R diagram into database table definitions.
2. Define primary keys for each table
3. Define relationships between the tables
4. Define the required constraints which may include default value for each column, whether each column will be allowed to have a Null value, Domain Constraints, Referential Integrity Rules, Validations, any Assertions that should hold in your database e.t.c.
5. Create forms for data entry. Use the forms to enter test data. The form must be **well designed.** Enter reasonable and realistic number of records for testing purposes.
6. Create sample reports. There should be **at least 5** major reports produced by your system. Queries will be required for these reports. The reports must be **well organized** e.g. titled, grouped, sorted e.t.c

You are required to use ORACLE RDBMS installed in the Labs or at your place of work.
You are required to submit the following:

1. Project specification i.e. a brief write-up on the scope of your project describing what your project is intended for and what it will achieve. (week 4)
2. A complete Entity Relationship Diagram (week 5)
3. A working system that incorporates the following (week 12):

    i. Tables
    ii. Relationships
    iii. Forms
    iv. Constraints
    v. Reports

You will be required to demonstrate your project. No other documentation is required.

CISY 423/BBIT 432 Advanced Database Systems

Project Evaluation

□ Table Design	4
□ Relationships and Referential Integrity	4
□ Forms Design	4
□ Sample Reports	4
□ Constraints (2 marks for each distinct type)	14
□ Any Extra Features implemented	10

TOTAL 40