**CYPRUS INTERNATIONAL UNIVERSITY**

# CMPE343/MISY343/ISYE343/ITEC343/CTPR216

**Database Management Systems and Programming II**

## Due Date: 21/06/2020

In this project, you are asked to design and implement a database that will store all the necessary information about **Car and House Insurance Management System.** After designing the database you will implement a software which will insert, delete and update data. The software should also be able to allow employee to prepare insurance policy for a customer as well as make payment in case of any damage.

Your design should contain at least **8 tables**. You are free to design the database anyway you like, but the following requirements should be considered:

Your database should have a user table that will allow users to login the system. This table will be used for authentication purposes. The system should also support creating user groups such as **admin, employees, customer** etc. Each group should have some specific role in the system. For example, employee prepare insurance policies and have full access to the database. Administrators manage systems and customers have access to only their details etc.

You should keep the records of the **insurance policies**; both for **car and house**. The policy will be signed between the customer and the agent. In every agent there have to be some employees working and they also contribute on the policies signed.

The database should store detailed information about the cars and houses getting insured, such as, year produced, car model, horsepower, cost, year build, number of floors, occupants, detailed address etc.

In case of any damage (or accident) the insurance agent agrees to pay 60 percent for the house and 75 percent for the car insured.

There also should be a REPORTS page which will show the report about SQL and PL/SQL results/outputs.

The project will have 3 phases:

**DESIGN:** The database should be designed and should be demonstrated with ERD. FKs and PKs should also be indicated with relational model.

Use any database that you want (Oracle, MSSQL, MySQL etc.), to implement your design.

**DEVELOP:** Write a software (with any language such as JAVA, C#, PHP, ASP etc.) to insert/update/delete and show data from your database. You should develop at least 3 windows to manage 3 tables, for insert/update and delete record from the database. When the project is completed you should have at least 5 records inserted in those 3 selected tables.

**QUERY:** Write 5 SQL retrieving statistical information to help management (use join, subquery, group by, to\_char etc.) and 5 PL/SQL (procedure, function or anonymous blocks)

At the end of this project, you will submit a report that should contain the following items:

### Introduction

* + An introduction giving brief information and assumptions about the system

### Database

* + ER Diagram,
  + Relational Data Model,
  + Data Definition Language Details (DDL), including all necessary constraints,
  + Data Manipulation Language (DML),
  + 5 SQL and 5 PL/SQL questions and answers/outputs.

## Software

* + Provide your DB connection code
  + Provide screenshots of all your pages as well as their codes and give some brief information about each page.
* These are the minimal requirements which means **they have to be implemented**, but implementing only the requirements that is mentioned above **will not be enough to get full mark.** You should extend this design and create a real-life database using MySQL or any other database program.