FA2022-SWS 351-102 – Management Information Systems
Database Project
Instructor: Dr. Saida Harguem
Due Date: November 27, 2022.

Project covers **CLO 3** – **"Develop relational database for business cases"**
           CLO4 – **"Utilize Internet and business applications to appraise business solutions"**

Total of 20 Marks
Deliverable 1: Report (11 Marks)
You have been tasked to design and build a working database for your small startup company in Dubai. Write a report using the SDLC model below outlining the steps taken in each phase to develop your database. Your report should include:
a) A cover page with your details (**0.5 Marks**)
b) A Table of content outlining the layout of your report (**0.5 Marks**)
c) Technical & economic feasibility studies for phase 1 (**2 Marks**)
d) Detail user requirements including business rules for phase 2 (**2 Marks**)
e) Detailed system design that includes your final DB proposal with all required tables and fields, entity relationship (ER) diagrams and a sample GUI for the database for phase 3 (**3 Marks**)
f) Detailed code for the implementation of your database showing SQL code to create DB and tables with all necessary keys (Primary & Foreign), code to *insert*, *modify*, and *delete* data into the tables, and a sample SQL code to *retrieve* data for phase 4 (**2 Marks**)
g) What conversion strategy you intend to adopt in the installation of the DB and how you plan to maintain the new software for phase 5 (**1 Marks**)
Deliverable 2: Data Visualization Using Tableau desktop (5 Marks)
1. Create the database files in Excel with sample Data for demonstration (**1 Mark**).
2. **(a)** Create a Workbook in Tableau using your Data Set to visualize data about your Database. The workbook should include 3 Sheets, a Dashboard & a Story in relation with your Business Case (**3 Marks**).
    (b) Add a section in your report entitled "Data Visualization" to include all screenshots of your workbook. Explain the output of each Tableau Work Sheet.
3. Publish your workbook on Tableau Server. Do not forget to add the link of your Workbook publication on Tableau server in the report. (**1 Mark**).
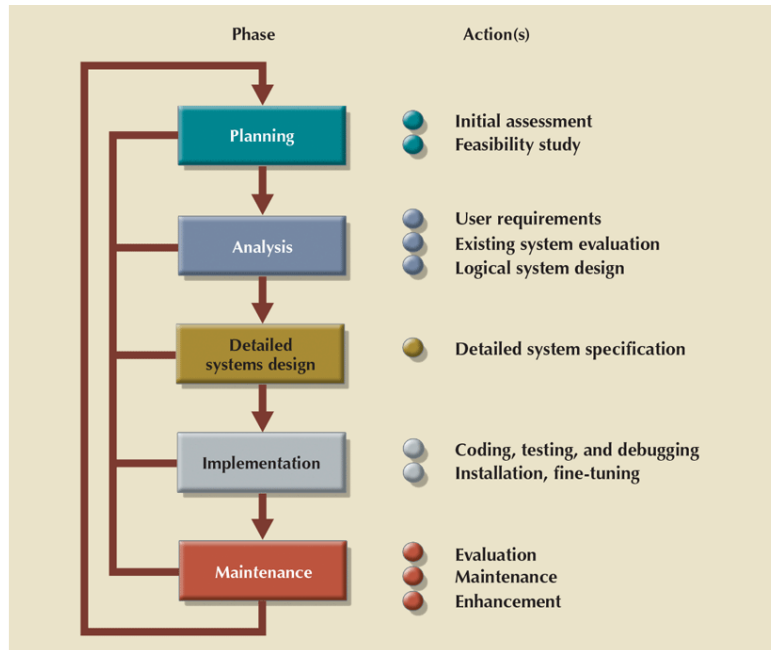
Deliverable 3: PowerPoint Presentation (4 Marks)
Each member of the group must participate to the project presentation.
4. Prepare a PowerPoint presentation of your project. The PowerPoint presentation must be submitted in the dedicated folder on Moodle.

Documents to submit on Moodle
*   Report: A Word document through Turnitin (**On November 27th**)
*   Tableau Workbook + Excel file for your Data Set. (**On November 27th**)
*   PowerPoint Presentation (**on the day of your presentation**)

Pick one of the topics below for your project. The project can be done as a group of 3 to 4 students. Submit your report using the TurnitIn link on Moodle **by 11:59 pm** of the due date. **No late submissions will be accepted. A similarity score of more than 20%** will result in a grade of **zero**.

You will have also to submit your Tableau Workbook using the Project Folder Submission on Moodle **by 11:59 pm** of the due date. your PPT presentation can be submitted the day of your presentation

1. Bed & Breakfast Booking

BestBed&Breakfast own several apartment buildings in Dubai. Each building has a name (short name and full name), description, address, phone number and manager in charge of it.

Several apartments are offered for short rental in different buildings across the city of Dubai. These apartments must be identified based on the apt type (beach front, city view, ocean view, family apt, luxury, economy, etc.), apt number, bathroom count, bedroom count, other rooms available.

Guests can book an apartment any day of the year and must indicate the booking start and end date and display the booking status. The reservation system must also record the guest first name, last name, DOB, and gender.

2. YmmyCakes Reservation

YummyCakes is one of the best Cakes schools in Dubai. Customers can make reservations on any pastry lesson based on their needs. Different lessons are listed on their website with prices for each. Lesson reservation must indicate lesson date, time, price, course category, the chef who will instruct, and lesson status code (completed, cancelled, in progress, etc.). These are the courses categories offered by the school: Edible Lace and Textures Course, Spiral Buttercream Cake, Cake Textures Series).

Customers details are saved in the DB, such as the date they became customers, DOB, customer status (new, regular), first and last name, amount of fees outstanding, email address, and phone number. Lesson payments are recorded separately indicating payment method (credit card, cash), date and time, and amount paid.