**Due: Wednesday 9th March 2022 at 5pm via Moodle**

**Deliverables**

1. ReadMe.txt
2. Relational Schema (Diagram) – Could use Designer in PhpMyAdmin
3. ***Your*** Scripts
   1. **SQL** - Build and populate database, NOT auto generated SQL file.
   2. **SQL** – To include joins, multiple joins, etc. **NOT *Select \* From Emp;***
   3. **PHP**– Front end to access **REMOTE** database
4. Video to demonstrate each of the above scripts
5. Zip the above files into a file called ‘***YourName’DBProject.zip***

Requirements:

Relational Schema: As wide a range of DB features as possible should be used to demonstrate your knowledge of Databases

* 1. **Tables**:
     1. Character Set & Collation that best reflects dataset.
     2. Relationships between tables could be 1:1, 1:M or Many to Many via Foreign Keys
     3. Appropriate Referential Integrity constraints
  2. **Field Attributes**:
     1. Range - Choose a datatype that best reflects the dataset
     2. Default value, where appropriate.
     3. Value - SET or ENUM for data entry, where appropriate.
     4. Auto Increment – Choose your own initial and step size
     5. BLOBs
     6. Encrypted data where appropriate

**Marking Scheme**

1. Cloud Access (10%)
2. Database Schema (35%)
3. Database Queries (Min 5 queries) (35%)
4. Local scripts to access remote database (20%)

Marks are assigned under the following categories:

1. Functionality
2. Complexity
3. Originality
4. Completeness

**Narrative**

Dr Mary Mulcahy runs a dental practice. She treats most cases, although a few specialist cases are referred to larger practices. The office secretary arranges appointments, either on-line, by post, phoning or dropping in. She arranges a suitable appointment by referring to the appointments diary unless the patient owes **over** a certain amount.

Every Monday morning, the office secretary checks the appointment diary and makes a list of all appointments for this week. She also prepares bills looking up the Treatment Fees guidelines book. The bills, itemising all unpaid treatments and late cancellations, are emailed to patients. Patients pay online (credit card, revolut), by post (cheque) or by dropping in (cash, cheque, credit card, revolut). Occasionally, patients arrange to make several small payments for a large bill.

If a patient needs specialist treatment, the dentist writes the name of an appropriate specialist and the secretary sends a patient referral to the specialist. After specialist treatment, the specialist posts a dental report to Dr Mulcahy, who reads it and files it in the patient's chart.

**Suggested Tables / Entities**

1. Appointment
2. Patient
3. Payment
4. Bill
5. Specialist
6. Treatment

**This project is worth 35% of the overall marks for the DBMS Module.**

**Marks will be deducted for late submissions**