Database Design & Development Database Project Report 2019

The aim of this project was to design and construct a database that could be implemented in a commercial database management system. The given narrative was used to create a relevant database that could be used to facilitate the smooth workings of a dental practise.

In creating this database, easy data entry, storage and usage within this small dental practise was promoted – making the dental practice more efficient, precise and a paperless clinic.

This Dental Practise Database includes:

- Appointment Details
- Patients Details
- Treatment Details
- Billing Details
- Payment Details
- Specialist Details
- Specialist Referrals

The narrative provided in class was studied and a business plan was developed so that the database created in this project would satisfy the needs of Dr Mary Mulcahy's Dental Practice.

What was carried out to create the Dental Practice's database??

A Relational Schema was created using the CREATE Query to produce Tables, Attributes, Primary Keys, Foreign Keys and Constraints (Primary Key, Range and Values.). This was demonstrated within the project by providing a PDF schematic of the database using an Entity Relationship Diagram (ERD).

Sample Test Data was created at random and inserted into the developed database. As seen in the attached SQL script with the INSERT data along with comments describing these.

To test the database was functioning correctly CRUD Queries were run using SQL scripts These queries included:

1. Select
2. Insert
3. Update
4. Delete
5. Create.

Finally, the database was then tested to see if it obeyed Codds Rules. This was carried out by stating each of the 12 Codd Rules followed by a SQL code showing its compliance.