**MSA University**

**Faculty of Computer Science**

**HEALTH CARE DATABASE**

This project is built to fulfill the requirements of course:

* CS215: Fundamentals of Database Systems

Group no: …..

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## Chapter 1: Introduction

# Background

# Problem Statement

# Objective

***Description:***

Our database consists of employees such as doctors, nurses, moreover patients and the bill that they pay, their medical information, and the appointments in which they will go the doctor needed.

***Objective:***

This database is created to regulate big data and avoid redundancy of the data, to have easier access for the data when needed, and to avoid its loss by providing backup data, as well as restricting unauthorized data.

We have in our database 10 entities for each entity we have attributes connected to other entities almost all of them has id as primary key ,and entity patient connected to medical info as entity consists of a lot of attribute such as blood type, anemia, lung disease, Heart Problem, thyroid desease,HIV,covid19,pregnant,diabetes ,blood pressure and it has patient id as a foreign key .As well as, appointments as entity that have appointment id as primary key and booked date and patient description as attributes ,and bill that have discount, bill charges as attributes and patient id as foreign key .Moreover, patient as entity that have patient id as primary key and have email ,phone number ,sex and name as attributes ,also doctors as entity that have doctors names as primary key, phone numbers ,address ,salary, field as attribute and appointment id as foreign key added to that nurses as entity that have nurses id as primary key and have name ,salary, address as attributes and relationship of assist between nurses and doctors

## Chapter 2: ER Diagram & Conversion

**Small introduction:**

Our database consists of employees such as doctors, nurses, moreover patients and the bill that they pay , their medical information, and the appointments in which they will go the doctor needed; it helps to regulate big data and avoid redundancy of the data, to have easier access for the data when needed ,and to avoid its loss by providing backup data ,as well as restricting unauthorized data .

### Entity Relationship Diagram

Use the notations for drawing ERD (Power designer, Erdplus.com ,VISIO, SmartDraw , DeZign, …)

Diagram

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### Mapping ER Model to Relational Model

## Diagram Description automatically generated

## Chapter 3: DDL, DML and DQL

3.1 Data Definition Language (DDL)

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3.2 Data Manipulation Language (DML)

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3.3 Data Query Language (DQL)

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## Chapter 4: Implementation

Plot here screenshots for your implementation for your system with C++ programming language linked to SQL Server.

