**Database Design Coursework**

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**Scenario Topic Name** (Aram Health Clinic)

**Scenario**

Aram health clinic branches have details like the address, two phone numbers, and a special branch number. The clinic has information about staff members and patients, including full name, date of birth, telephone number, address, sex, and unique number. Patients have appointments with doctors on specific dates and times. Staffs have other information like, which branch they work in, position, work experience, contract, and contract date. The position of staff can be either a secretary or a doctor who is identified by their staff number. Secretaries have some information like qualifications, the doctors staff number, and their experience in Excel. Doctors have some details, for example, GMC number, job role, availability on weekends, and night shifts. The contract is full-time or part-time which is identified by staff number. Full-time contracts have annual salaries. Part-time contracts have hourly rates and availability for overtime.

**Example queries**

1. With which doctor do I have an appointment?
2. How many doctors do we have in clinic?
3. How many staff members do we have in the first branch?
4. Which doctors are available on weekends?
5. What is the salary of a secretary in a year?
6. Which doctor has the most work experience?
7. What time is my appointment?

**Entity Relationship Model**

Next Page. . .

Diagram

Description automatically generated

**Relational Model Tables**

* Copy and paste the table below for as many relational tables as you need
* Replace the placeholder names (table-name1, attribute-name5 etc) with the table and attribute names you derived from your ER model
* List primary key attributes first
* Add new rows to the tables (in the correct place) as needed
* Delete any unnecessary rows (attribute rows and foreign key rows if not used)
* Primary keys are to be specified in the format PRIMARY KEY (attribute-name1, attribute-name2, etc)
* Foreign keys are to be specified in the format ‘FOREIGN KEY (attribute-name) REFERENCES table-name (attribute-name)

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Branch |  |
| **Attributes** |  |
| branch no |  |
| street |  |
| city |  |
| postcode |  |
| phone number 1 |  |
| phone number 2 |  |
| **PRIMARY KEY**  branch no |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Staff |  |
| **Attributes** |  |
| staff no |  |
| Branch branch no |  |
| position |  |
| staff full name |  |
| sex |  |
| date of birth |  |
| telephone number |  |
| work experience |  |
| contract |  |
| contract date |  |
| street |  |
| city |  |
| postcode |  |
| **PRIMARY KEY**  staff no |  |
| **FOREIGN KEY** (Branch branch no) REFERENCES Branch (branch no) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Doctor |  |
| **Attributes** |  |
| Staff staff no |  |
| doctor job role |  |
| gmc registration number |  |
| available on weekends |  |
| night shifts |  |
| **PRIMARY KEY**  Staff staff no |  |
| **FOREIGN KEY** (Staff staff no) REFERENCES Staff (staff no) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Secretary |  |
| **Attributes** |  |
| Staff staff no |  |
| Doctor Staff staff no |  |
| qualification |  |
| experience in Excel |  |
| **PRIMARY KEY**  Staff staff no |  |
| **FOREIGN KEY** (Staff staff no) REFERENCES Staff (staff no) |  |
| **FOREIGN KEY** (Doctor Staff staff no) REFERENCES Doctor (Staff staff no) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Full-time |  |
| **Attributes** |  |
| Staff staff no |  |
| annual salary |  |
| **PRIMARY KEY**  Staff staff no |  |
| **FOREIGN KEY** (Staff staff no) REFERENCES Staff (staff no) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Part-time |  |
| **Attributes** |  |
| Staff staff no |  |
| hourly rate |  |
| overtime |  |
| **PRIMARY KEY**  Staff staff no |  |
| **FOREIGN KEY** (Staff staff no) REFERENCES Staff (staff no) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Patient |  |
| **Attributes** |  |
| patient ID |  |
| patient full name |  |
| sex |  |
| date of birth |  |
| telephone number |  |
| street |  |
| city |  |
| postcode |  |
| **PRIMARY KEY**  patient ID |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Appointment |  |
| **Attributes** |  |
| appointment date |  |
| appointment time |  |
| Doctor Staff staff no |  |
| Patient patient ID |  |
| **PRIMARY KEY**  appointment date |  |
| **PRIMARY KEY**  appointment time |  |
| **PRIMARY KEY**  Doctor Staff staff no |  |
| **PRIMARY KEY**  Patient patient ID |  |
| **FOREIGN KEY** (Doctor Staff staff no) REFERENCES Doctor (Staff staff no) |  |
| **FOREIGN KEY** (Patient patient ID) REFERENCES Patient (patient ID) |  |

**Marker’s Comments** (Do not write in this section)

**Important:** Please note that marker’s corrections to your relational tables are there to help you construct a working database for the second coursework. They are not the determinant of your mark. For more information on how your work is assessed see the coursework specification and grade related criteria.

**Coursework Mark** (100 marks available):