

How to design a database

To create a database, we need to work out.

↳ How will the data be stored?

Determine the tables and attributes.

Step 1 : Write down the idea or requirements

ex:- SOCIAL NETWORKING APP

allow users to upload photos, comment on photos, tag other users, like photos, and post text updates.

SCHOOL WEBSITE

allow students to select classes to enrol in, allow teachers to enter timetables for classes, and allow teachers to record attendance for classes

DOCTOR APPOINTMENTS

allow patients to book a doctor appointment on a specified date and time with a doctor, record when the patient arrives at the clinic, and record when the patient has completed their appointment with the doctor.

Step 2 : Identify Nouns

allow Patients to book a doctor appointment on a specified date and time with a doctor, record when the patient arrives at the clinic, and record when the patient has completed their appointment with the doctor

These nouns are used to create tables.

Tables

| patient | | appointment | | doctor | |
|---------|-------|-------------|-------|--------|-------|
| key | field | key | field | key | field |
| | | | | | |

| clinic | |
|--------|-------|
| key | field |
| | |

Step 3: Add attributes

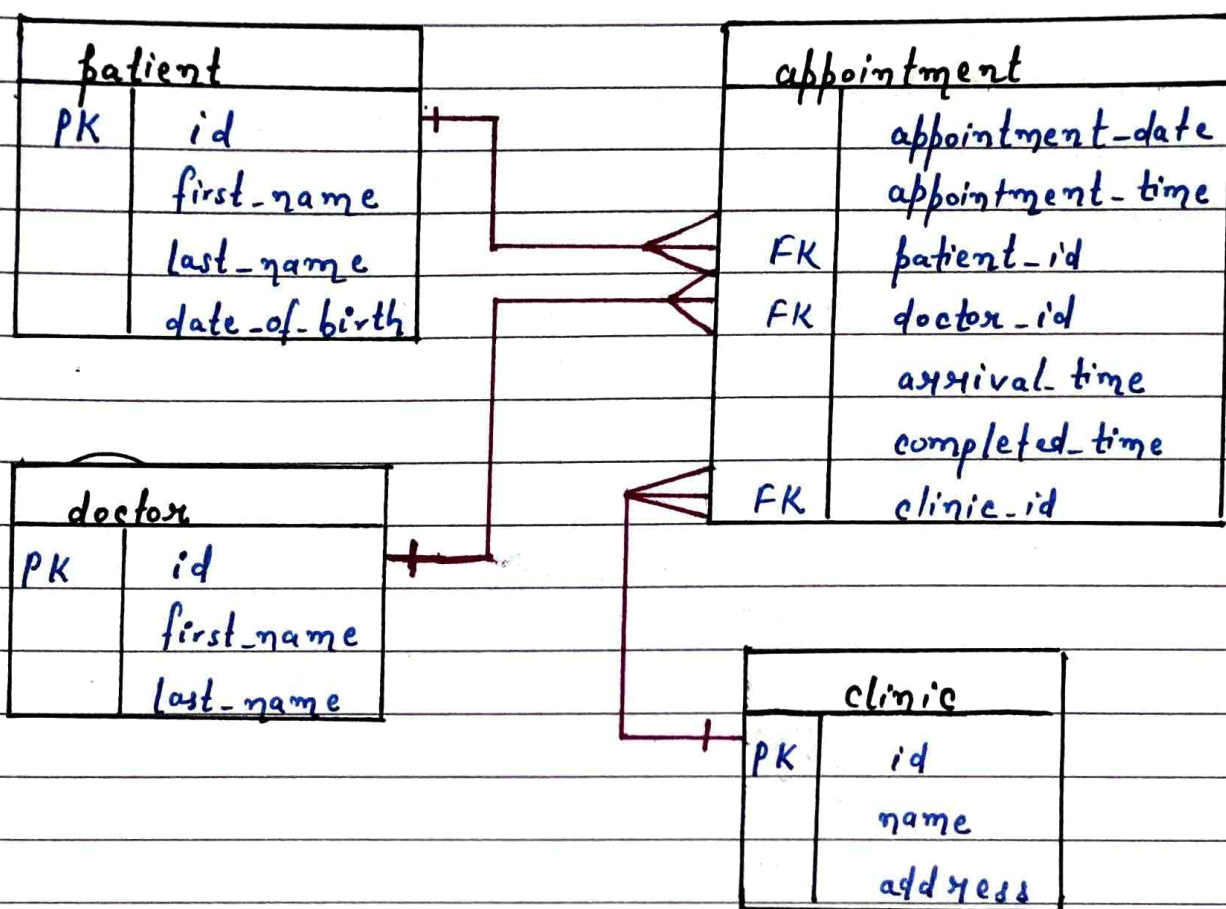
| patient | |
|---------|---------------|
| | first_name |
| | last_name |
| | date_of_birth |

| appointment | |
|-------------|------------------|
| | appointment_date |
| | appointment_time |
| | doctor |
| | patient |
| | arrival_time |
| | completed_time |

| doctor | |
|--------|------------|
| | first_name |
| | last_name |

| clinic | |
|--------|---------|
| | name |
| | address |

Step 4: Add relationships



Step 5: Assess tables, fields and adjust

- Perhaps a patient has a preferred doctor. So, we could link patient and doctor table.
- A doctor works at a clinic. We could link them together.

Step 6: Normalisation & other steps

- Every table should have a primary key.
- Add PK field to appointment table.