

# MedicalOne Database Design Documentation

- **Name:** MedicalOne
- **Website:** <https://www.medicalone.com.au/>
- **Main business:** Providing General Practitioners

- **Descriptions of business:**

MedicalOne is a group of general practitioners and allied health providing the best doctors for individuals and their families.

- **Use case:** Book Vaccinations.
- **Actor:** Patient.

1. Patient opens the website.
2. Patient clicks the "book now" button.
3. Patient chooses the branch closest to their location.
4. Patient selects the vaccination type (reason).
5. Patient selects a doctor.
6. Patients select a date and time.

Exception Conditions:

1. If the patient selects a covid 19 vaccination.
  - a. System reminds that patient must have a current Medicare card in order to book the appointment.

# MedicalOne Database Design

## 1. Entities and attributes: first draft

- **PATIENT** [PAT\_ID (PK), PAT\_NAME, PAT\_ADD, PAT\_NUM]
- **CENTRE** [C\_ID (PK), C\_NAME, C\_ADD, C\_OPENING\_HOURS, C\_NUM, C\_FAX, C\_PRC\_MGR]

C\_OPENING\_HOURS here has multiple repeating groups and therefore its relations cannot be in 1NF.

PRC\_MGR here is prone to changes and therefore a history entity must be added.

- **DOCTOR** [DOC\_ID (PK), DOC\_NAME, DOC\_NUM, DOC\_SOURCE]

DOC\_SOURCE here is referring to whether he/she is hired directly by "MedicalOne" or through Allied Health.

- **BOOKING** [BOOKING\_ID (PK), PAT\_ID, DOC\_ID, DATE, TIME]
  - **VACCINATIONS** [BOOKING\_ID (PK), VAC\_TYPE, VAC\_DOSE, MCARE\_NUM]  
MCARE\_NUM is here because of the fact that vaccination cannot be booked if the patient does not possess a Medicare account.
  - **APPOINTMENTS** [BOOKING\_ID (PK), PAT\_TYPE]  
PAT\_TYPE here determines if the patient is there for a general checkup or a checkup initiated due to a specific reason.

Here the booking entity is split into its subtypes.

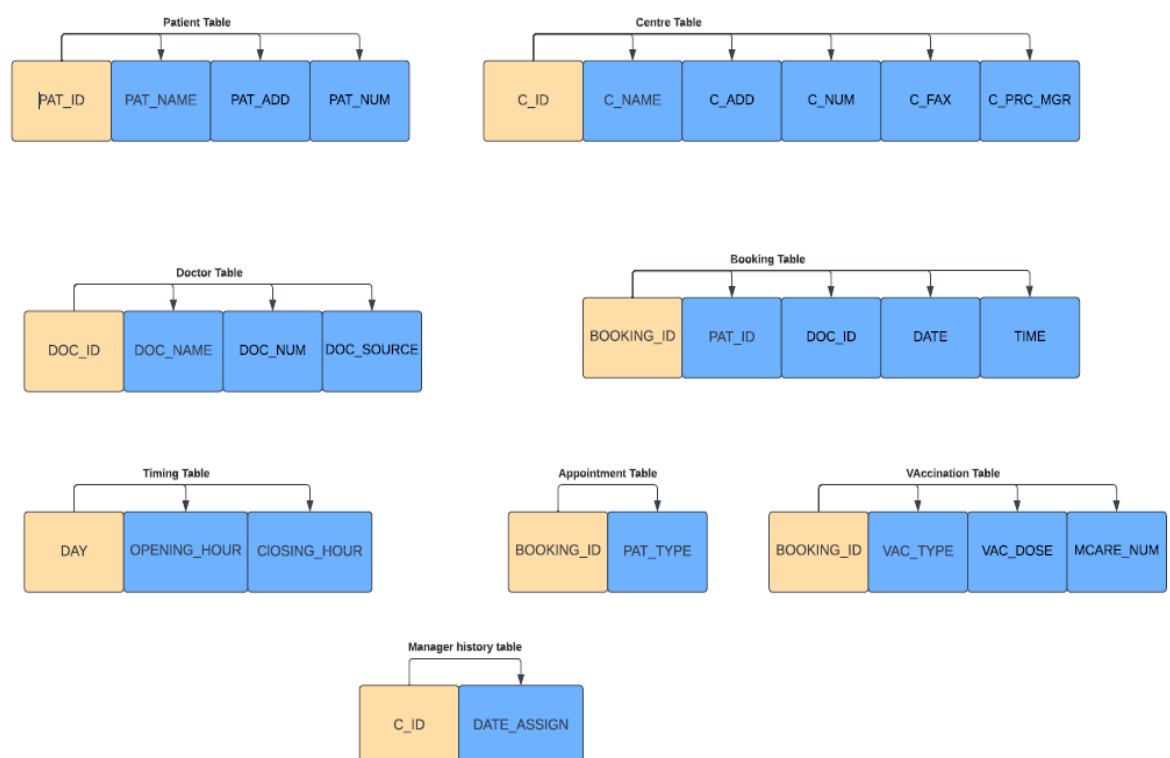
## 1. Entities and attributes: 1NF

Additional Entities:

- **TIMINGS** [ DAY (PK), OPENING\_HOUR, CLOSING\_HOUR]  
DAY here represents the days of the week.

- **MGR\_HIST** [C\_ID (PK), DATE\_ASSIGN]
- **MEDICARE: ENTITY CLUSTER**

The current relationship is in 3NF form because of the fact that each entity only posses a single primary key and therefore cannot have partial dependencies and no non key attributes can determine any other attribute, therefore no transitive dependencies either.



## ERD

