

# NORMALISATION

## MONASH HOSPITAL (MH)

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### Documents A:

#### UNF

**PATIENT ADMISSION** (patient\_id, patient\_name, admission\_datetime, supvdoctor\_id, supvdoctor\_name (procedure\_code, procedure\_name, prescdoctor\_id, prescdoctor\_name, doctorcarried\_id, doctorcarried\_name, carried\_out\_on, totalproc\_charge, (item\_code, item\_description, item\_quantity, totalitem\_price), totalextra\_charge))

#### 1NF

**PATIENT ADMISSION**(patient\_id, admission\_datetime, patient\_name, supvdoctor\_id, supvdoctor\_name )

Dependency diagrams:

patient_id, admission_datetime → supvdoctor_id	<b>FULL DEPENDENCY</b>
patient_id → patient_name	<b>PARTIAL DEPENDENCY</b>
supv_id → supv_name	<b>TRANSITIVE DEPENDENCY</b>

**PATIENT PROCEDURE** ( patient\_id, carried\_out\_on, admission\_datetime, procedure\_code, procedure\_name, prescdoctor\_id, prescdoctor\_name, doctorcarried\_id, doctorcarried\_name, totalproc\_charge, totalextra\_charge)

Dependency diagrams:

patient_id, carried_out_on → procedure_code, prescdoctor_id, doctorcarried_id, totalproc_charge, totalextra_charge	<b>FULL DEPENDENCY</b>
procedure_code → procedure_name	<b>TRANSITIVE DEPENDENCY</b>
prescdoctor_id → prescdoctor_name	<b>TRANSITIVE DEPENDENCY</b>
doctorcarried_id → doctorcarried_name	<b>TRANSITIVE DEPENDENCY</b>

**PROCEDURE E-ITEM** (patient\_id, carried\_out\_on, item\_code, item\_description, item\_quantity, totalitem\_price)

Dependency diagrams:

patient\_id, carried\_out\_on, item\_code → item\_quantity,

totalitem\_price

item\_code → item\_description

**FULL DEPENDENCY**

**PARTIAL DEPENDENCY**

## 2NF

**PATIENT ADMISSION**(patient\_id, admission\_datetime, supvdoctor\_id, supvdoctor\_name )

**PATIENT** (patient\_id ,patient\_name)

**PATIENT PROCEDURE** ( patient\_id, carried\_out\_on, admission\_datetime, procedure\_code, procedure\_name, prescdoctor\_id, prescdoctor\_name, doctorcarried\_id, doctorcarried\_name, totalproc\_charge, totalextra\_charge)

**PROCEDURE E-ITEM** (patient\_id, carried\_out\_on, item\_code, item\_quantity, totalitem\_price)

**EXTRA ITEM** (item\_code, item\_description)

## 3NF

**PATIENT ADMISSION**(patient\_id, admission\_datetime, supvdoctor\_id)

**SUPERVISING DOCTOR** ( supvdoctor\_id, supvdoctor\_name)

**PATIENT** (patient\_id ,patient\_name)

**PATIENT PROCEDURE** ( patient\_id, carried\_out\_on, admission\_datetime, procedure\_code, prescdoctor\_id, doctorcarried\_id, totalproc\_charge, totalextra\_charge)

**PROCEDURE** (procedure\_code, procedure\_name)

**PRESCRIBE DOCTOR** (prescdoctor\_id, prescdoctor\_name)

**DOCTOR CARRIEDOUT** (doctorcarried\_id, doctorcarried\_name)

**PROCEDURE E-ITEM** (patient\_id, carried\_out\_on, item\_code, item\_description, item\_quantity, totalitem\_price)

**EXTRA ITEM** (item\_code, item\_description)

## FINAL 3NF

Combined SUPERVISING DOCTOR, PRESCRIBE DOCTOR, and DOCTOR CARRIEDOUT into DOCTOR (doctor\_id, doctor\_name)

**PATIENT ADMISSION**(patient\_id, admission\_datetime, supvdoctor\_id)

**PATIENT** (patient\_id ,patient\_name)

**PATIENT PROCEDURE** ( patient\_id, carried\_out\_on, admission\_datetime, procedure\_code, prescdoctor\_id, doctorcarried\_id, totalproc\_charge, totalextra\_charge)

**PROCEDURE** (procedure\_code, procedure\_name)

**PROCEDURE E-ITEM** (patient\_id, carried\_out\_on, item\_code, item\_description, item\_quantity, totalitem\_price)

**EXTRA ITEM** (item\_code, item\_description)

**DOCTOR** (doctor\_id, doctor\_name)

## Documents B:

### UNF

**NURSE ASSIGNMENT** (nurse\_id, nurse\_fname, nurse\_lname, nurse\_phone, cert\_for\_childern(ward\_code, ward\_name, date\_assigned, date\_completed))

### 1NF

**NURSE** (nurse\_id, nurse\_fname, nurse\_lname, nurse\_phone, cert\_for\_childern)

Dependency diagrams:

nurse\_id → nurse\_fname, nurse\_lname, nurse\_phone, cert\_for\_childern  
**FULL DEPENDENCY**

**WARD ASSIGNMENT** (nurse\_id, date\_assigned, ward\_code, ward\_name, date\_completed)

Dependency diagrams:

Nurse\_id, date\_assigned → ward\_code, date\_completed  
**FULL DEPENDENCY**  
ward\_code → ward\_name  
**TRANSITIVE DEPENDENCY**

### 2NF

**NURSE** (nurse\_id, nurse\_fname, nurse\_lname, nurse\_phone, cert\_for\_childern)

**WARD ASSIGNMENT** (nurse\_id, date\_assigned, ward\_code, ward\_name, date\_completed)

### 3NF

**NURSE** (nurse\_id, nurse\_fname, nurse\_lname, nurse\_phone, cert\_for\_childern)

**WARD ASSIGNMENT** (nurse\_id, date\_assigned, ward\_code, date\_completed)

**WARD** (ward\_code, ward\_name)