Normalisation

# Monash Dental Daily Provider Running Sheet

UNF:

PROVIDER (prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge, (appt\_datetime, patient\_no, patient\_name))

1NF:

PROVIDER(prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge)

APPOINTMENT(prov\_code, appt\_datetime, patient\_no, patient\_name)

Partial dependencies:

None

2NF:

PROVIDER (prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge)

APPOINTMENT(prov\_code, appt\_datetime, patient\_no, patient\_name)

Transitive dependencies:

Patient\_no 🡪 patient\_name

3NF:

PROVIDER (prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge)

APPOINTMENT(prov\_code, appt\_datetime, patient\_no)

PATIENT(patient\_no, patient\_name)

Full\_dependencies:

prov\_code 🡪 prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_cha

prov\_code, appt\_datetime 🡪 patient\_no

Prov\_code 🡪 prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge

Patient\_no 🡪 patient\_name

# Monash Dental Appointment Completion Report

UNF:

APPOINTMENT(patient\_no, patient\_name, appt\_date, appt\_time, prov\_code, prov\_name, appt\_room, appt\_type, (service\_code, service\_desc, service\_stnd\_fee, service\_fee\_charged), (pay\_no, pay\_from, pay\_amount))

1NF:

APPOINTMENT(patient\_no, patient\_name, appt\_date, appt\_time, prov\_code, prov\_name, appt\_room, appt\_type)

APPOINTMENT\_SERVICE(appt\_date, appt\_time, prov\_code, service\_code, service\_desc, service\_stnd\_fee, service\_fee\_charged)

PAYMENT(appt\_date, appt\_time, prov\_code, pay\_no, pay\_from, pay\_amount)

Partial dependencies:

Prov\_code 🡪 prov\_name

Patient\_no 🡪 patient\_name (appt\_date, appt\_time and patient\_no was another candidate key)

Service\_code 🡪 service\_desc, service\_stnd\_fee

2NF:

APPOINTMENT(patient\_no, appt\_date, appt\_time, prov\_code, appt\_room, appt\_type)

PATIENT(patient\_no, patient\_name)

PROVIDER(prov\_code, prov\_name)

APPOINTMENT\_SERVICE(appt\_date, appt\_time, prov\_code, service\_code, service\_fee\_charged)

SERVICE(service\_code, service\_desc, service\_stnd\_fee)

PAYMENT(appt\_date, appt\_time, prov\_code, pay\_no, pay\_from, pay\_amount)

Transitive dependencies:

None

3NF:

APPOINTMENT(patient\_no, appt\_date, appt\_time, prov\_code, appt\_room, appt\_type)

PROVIDER(prov\_code, prov\_name)

APPOINTMENT\_SERVICE(appt\_date, appt\_time, prov\_code, service\_code, service\_fee\_charged)

SERVICE(service\_code, service\_desc, service\_stnd\_fee)

PAYMENT(pay\_no, pay\_from, pay\_amount)

PAYMENT(appt\_date, appt\_time, prov\_code, pay\_no, pay\_from, pay\_amount)

Full dependencies:

appt\_date, appt\_time, prov\_code 🡪patient\_no, appt\_room, appt\_type

prov\_code 🡪 prov\_name

appt\_date, appt\_time, prov\_code, service\_code 🡪 service\_fee\_charged

service\_code 🡪 service\_desc, service\_stnd\_fee

pay\_no 🡪 pay\_from, pay\_amount

patient\_no, patient\_name

All 3NF relations:

1. PROVIDER (prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge)
2. APPOINTMENT(prov\_code, appt\_datetime, patient\_no)
3. PATIENT(patient\_no, patient\_name)
4. APPOINTMENT(patient\_no, appt\_date, appt\_time, prov\_code, appt\_room, appt\_type)
5. PROVIDER(prov\_code, prov\_name)
6. APPOINTMENT\_SERVICE(appt\_date, appt\_time, prov\_code, service\_code, service\_fee\_charged)
7. SERVICE(service\_code, service\_desc, service\_stnd\_fee)
8. PAYMENT(appt\_date, appt\_time, prov\_code, pay\_no, pay\_from, pay\_amount)
9. PATIENT(patient\_no, patient\_name)

Attribute synthesis

3 and 9 are combined.

1 and 5 are combined.

2 and 4 are combined. Relation 4 APPOINTMENT has date and time separately but it will be assumed that they can be combined together.

Final relations:

1. (&5) PROVIDER (prov\_code, prov\_name, prov\_reg\_no, prov\_first\_reg\_date, prov\_reg\_status, prov\_month\_charge, prov\_year\_charge)
2. (& 4) APPOINTMENT(prov\_code, appt\_datetime, patient\_no, appt\_room, appt\_type)
3. (& 9) PATIENT(patient\_no, patient\_name)
4. APPOINTMENT\_SERVICE(appt\_date, appt\_time, prov\_code, service\_code, service\_fee\_charged)
5. SERVICE(service\_code, service\_desc, service\_stnd\_fee)
6. PAYMENT(appt\_date, appt\_time, prov\_code, pay\_no, pay\_from, pay\_amount)