

## **MAU NORMALISATION**

### **Artwork Status History Reports**

#### **UNF**

ARTWORK(art\_no, art\_title, artist\_code, artist\_gname, artist\_fname, art\_dateadd, (hist\_date, hist\_status, gal\_id, gal\_name))

#### **1NF**

ARTWORK(art\_no, art\_title, artist\_code, artist\_gname, artist\_fname, art\_dateadd)

CKs:

- art\_no, artist\_code
- art\_title, artist\_code

HISTORY(art\_no, artist\_code, hist\_date, hist\_status, gal\_id, gal\_name)

CKs:

- art\_no, artist\_code, hist\_date, hist\_status

Partial dependencies

- artist\_code -> artist\_gname, artist\_fname

#### **2NF**

ARTWORK(art\_no, art\_title, artist\_code, art\_dateadd)

ARTIST(artist\_code, artist\_gname, artist\_fname)

HISTORY(art\_no, artist\_code, hist\_date, hist\_status, gal\_id, gal\_name)

Transitive dependencies

- gal\_id -> gal\_name

### 3NF

ARTWORK(art\_no, art\_title, artist\_code, art\_dateadd)

ARTIST(artist\_code, artist\_gname, artist\_fname)

HISTORY(art\_no, artist\_code, hist\_date, hist\_status, gal\_id)

GALLERY(gal\_id, gal\_name)

#### Full dependencies

- art\_no, artist\_code -> art\_title, art\_dateadd
- artist\_code -> artist\_gname, artist\_fname, art\_dateadd
- art\_no, artist\_code, hist\_date, hist\_status -> gal\_id
- gal\_id -> gal\_name

## Gallery Display Reports

### UNF

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close (artist\_code, art\_no, art\_title, artist\_name, exhibit\_start, exhibit\_end, art\_featured)

### 1NF

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

CKs:

- gal\_id

DISPLAY(gal\_id, artist\_code, art\_no, art\_title, artist\_name, exhibit\_start, exhibit\_end, art\_featured)

CKs:

- gal\_id, artist\_code, art\_no, exhibit\_start
- gal\_id, artist\_code, art\_no, exhibit\_end

Partial dependencies

- artist\_code -> artist\_name
- artist\_code, art\_no -> art\_title

### 2NF

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

DISPLAY(gal\_id, artist\_code, art\_no, exhibit\_start, exhibit\_end, art\_featured)

ARTIST(artist\_code, artist\_name)

ARTWORK(artist\_code, art\_no, art\_title)

Transitive dependencies

- No transitive dependencies exist

### 3NF

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

DISPLAY(gal\_id, artist\_code, art\_no, exhibit\_start, exhibit\_end, art\_featured)

ARTIST(artist\_code, artist\_name)

ARTWORK(artist\_code, art\_no, art\_title)

#### Full dependencies

- gal\_id -> gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close
- gal\_id, artist\_code, art\_no, exhibit\_start -> exhibit\_end, art\_featured
- artist\_code -> artist\_name
- artist\_code, art\_no -> art\_title

## Synthesis

### Collected 3NF

ARTWORK(art\_no, art\_title, artist\_code, art\_dateadd)

ARTIST(artist\_code, artist\_gname, artist\_fname)

HISTORY(art\_no, artist\_code, hist\_date, hist\_status, gal\_id)

GALLERY(gal\_id, gal\_name)

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

DISPLAY(gal\_id, artist\_code, art\_no, exhibit\_start, exhibit\_end, art\_featured)

ARTIST(artist\_code, artist\_name)

ARTWORK(artist\_code, art\_no, art\_title)

### Attribute Synthesis

ARTWORK(art\_no, artist\_code, art\_title, art\_dateadd)

ARTIST(artist\_code, artist\_gname, artist\_fname)

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

### FINAL 3NF Relations

ARTWORK(art\_no, artist\_code, art\_title, art\_dateadd)

ARTIST(artist\_code, artist\_gname, artist\_fname)

GALLERY(gal\_id, gal\_name, gal\_street, gal\_town, gal\_state, gal\_open, gal\_close)

HISTORY(art\_no, artist\_code, hist\_date, hist\_status, gal\_id)

DISPLAY(gal\_id, artist\_code, art\_no, exhibit\_start, exhibit\_end, art\_featured)