--Title : **NORMALISATION**

--Student Name: **CHUKWUDI ANYANWU**

**MAU Artwork Status**

**UNF – List all attributes AND identify repeating groups**

Artwork\_Status\_History (artwork\_no, artwork\_title, artist\_code, artist\_fname, artist\_lname artwork\_date\_instock, (status\_date, artwork\_status, gallery\_id, gallery\_name)**)**

**Repeating groups :**

(status\_date, artwork\_status, gallery\_id, gallery\_name)

**1NF – Remove repeating group AND identify PKs & CKs AND Partial Dependencies (PD)**

Artwork (artwork\_no, artist\_code, artwork\_title, artist\_fname, artist\_lname, artwork\_date\_instock)

Artwork\_Status (artwork\_no, artwork\_code, status\_date, artwork\_status, gallery\_id, gallery\_name)

**Partial Dependencies:**

(artist\_code 🡪 artist\_fname, artist\_lname)

**2NF – Relations must be in 1NF, remove PD and identify Transitive Dependencies (TD)**

Artwork (artwork\_no, artist\_code, artwork\_title, artwork\_date\_instock)

Artwork\_Status (artwork\_no, artist\_code, status\_date, artwork\_status, gallery\_id, gallery\_name)

Artist (artist\_code, artist\_fname, artist\_lname)

**Transitive Dependencies**

(gallery\_id 🡪 gallery\_name)

**3NF – Relation must be in 2NF, remove TD, and show Full Dependencies**

Artwork (artwork\_no, artist\_code, artwork\_title, artwork\_date\_instock)

Artwork\_Status (artwork\_no, artist\_code, status\_date, artwork\_status, gallery\_id)

Artist (artist\_code, artist\_fname, artist\_lname)

Gallery (gallery\_id, gallery\_name)

**Full Dependencies:**

artwork\_no, artist\_code 🡪 artwork\_title, artwork\_date\_instock

artwork\_no, artist\_code , status\_date 🡪 artwork\_status, gallery\_id

artist\_code 🡪 artist\_fname, artist\_lname

gallery\_id 🡪 gallery\_name

**Gallery Display**

**UNF – List all attributes AND identify repeating groups**

Gallery\_Display\_Report (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens\_time, gallery\_closes\_time (artist\_code, artwork\_no, artwork\_title, artist\_fname, artist\_lname, exhibit\_start\_date, exhibit\_end\_date, artwork\_in\_catalog)

**Repeating groups**

(artist\_code, artwork\_no, artwork\_title, artist\_fname, artist\_lname, exhibit\_start\_date, exhbit\_end\_date, artwork\_in\_catalog)

**1NF – Remove repeating group AND identify PKs & CKs AND Partial Dependencies (PD)**

Gallery (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens\_time, gallery\_closes\_time)

Exhibit (gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, artwork\_title, artist\_fname, artist\_lname, exhibit\_end\_date, artwork\_in\_catalog)

**Partial Dependencies:**

**(**artist\_code, 🡪 artist\_fname, artist\_lname)

**2NF – Relations must be in 1NF, remove PD and identify Transitive Dependencies (TD)**

Gallery (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens\_time, gallery\_closes\_time)

Exhibit (gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, artwork\_title, exhibit\_end\_date, artwork\_in\_catalog)

Artist **(**artist\_code**,** artist\_fname, artist\_lname)

**Transitive Dependencies:**

No Transitive dependencies

**3NF – Relation must be in 2NF, remove TD, and show Full Dependencies**

Gallery (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens, gallery\_closes)

Exhibit (gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, artwork\_title, exhbit\_end\_date, artwork\_in\_catalog)

Artist (artist\_code, artist\_fname, artist\_lname)

**Full Dependencies:**

gallery\_id 🡪 gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens, gallery\_closes

gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, 🡪 artwork\_title, exhbit\_end\_date, artwork\_in\_catalog

artist\_code, 🡪 artist\_fname, artist\_lname

COLLECTED 3NF RELATIONS:

GALLERY (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens, gallery\_closes)

EXHIBIT (gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, artwork\_title, exhbit\_end\_date, artwork\_in\_catalog)

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

ARTWORK (artwork\_no, artist\_code, artwork\_title, artwork\_date\_instock)

ARTWORK\_STATUS (artwork\_no, artist\_code, status\_date, artwork\_status, gallery\_id)

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

GALLERY (gallery\_id, gallery\_name)

**Attribute synthesis:**

**ARTWORK** (artwork\_no, artist\_code, artwork\_title, artwork\_date\_instock)

**ARTWORK\_STATUS** (artwork\_no, artist\_code, status\_date, artwork\_status, gallery\_id)

**GALLERY** (gallery\_id, gallery\_name, gallery\_street, gallery\_town, gallery\_state, gallery\_opens\_time, gallery\_closes\_time)

**EXHIBIT** (gallery\_id, artist\_code, artwork\_no, exhibit\_start\_date, exhbit\_end\_date, artwork\_in\_catalog)

**ARTIST (**artist\_code, artist\_fname, artist\_lname)