

## SAMPLE 1:

UNF

MOVEMENT(ART\_NO,ART\_TITLE,ARTIST\_CODE,(ARTIST\_FNAME,ARTIST\_LNAME),DATE\_ADDED,DATE,ART\_STATUS,GAL\_ID,GAL\_NAME)

1NF

MOVEMENT(ART\_NO,ARTIST\_CODE,DATE,GAL\_ID,ART\_TITLE,(ARTIST\_FNAME,ARTIST\_LNAME),DATE\_ADDED,ART\_STATUS,GAL\_ID,GAL\_NAME)

Partial Dependencies:

(ART\_NO,ARTIST\_CODE→ART\_TITLE,DATE\_ADDED)

(ARTIST\_CODE→(ARTIST\_FNAME,ARTIST\_LNAME))

2NF

ARTWORK(ART\_NO,ARTIST\_CODE,ART\_TITLE,DATE\_ADDED)

ARTIST(ARTIST\_CODE, (ARTIST\_FNAME,ARTIST\_LNAME))

MOVEMENT(ART\_NO,ARTIST\_CODE,DATE,ART\_STATUS)

Transitive Dependencies:

(GAL\_ID→GAL\_NAME)

3NF

ARTWORK(ART\_NO,ARTIST\_CODE,ART\_TITLE,DATE\_ADDED)

ARTIST(ARTIST\_CODE, (ARTIST\_FNAME,ARTIST\_LNAME))

GALLERY(GAL\_ID,GAL\_NAME)

MOVEMENT(ART\_NO,ARTIST\_CODE,DATE,ART\_STATUS)

Full Dependencies

(ART\_NO,ARTIST\_CODE→ART\_TITLE,DATE\_ADDED)

(ARTIST\_CODE→ARTIST\_FNAME,ARTIST\_LNAME)

(GAL\_ID→GAL\_NAME)

(ART\_NO,ARTIST\_CODE,DATE→ART\_STATUS)

## SAMPLE 2

UNF

(ART\_NO,ART\_TITLE,ARTIST\_CODE,(ARTIST\_FNAME,ARTIST\_LNAME),DATE\_ADDED,DATE,ART\_STATUS,GAL\_ID,GAL\_NAME,(GAL\_STREET,GAL\_TOWN,GAL\_STATE), GAL\_OPENS,GAL\_CLOSES,EXH\_START,EXH\_END,EXH\_FEAT)

1NF

(ART\_NO,ARTIST\_CODE,EXH\_START,GAL\_ID,ART\_TITLE,(ARTIST\_FNAME,ARTIST\_LNAME),DATE\_ADDED,DATE,ART\_STATUS,(GAL\_STREET,GAL\_TOWN,GAL\_STATE),GAL\_NAME,GAL\_OPENS,GAL\_CLOSES,EXH\_END,EXH\_FEAT)

Partial Dependencies:

(ART\_NO,ARTIST\_CODE→ART\_TITLE,DATE\_ADDED)

(ARTIST\_CODE→ARTIST\_FNAME,ARTIST\_LNAME)

2NF

ARTWORK(ART\_NO,ARTIST\_CODE,ART\_TITLE,DATE\_ADDED)

EXHIBITION(ART\_NO,ARTIST\_CODE,EXH\_START,GAL\_ID,GAL\_NAME,(GAL\_STREET,GAL\_TOWN,GAL\_STATE),GAL\_OPENS,GAL\_CLOSES,EXH\_END,EXH\_FEAT)

ARTIST(ARTIST\_CODE ARTIST\_FNAME,ARTIST\_LNAME)

Transitive Dependencies:

(GAL\_ID→GAL\_NAME,(GAL\_STREET,GAL\_TOWN,GAL\_STATE)GAL\_OPENS, GAL\_CLOSES)

3NF

GALLERY(GAL\_ID,GAL\_NAME,(GAL\_STREET,GAL\_TOWN,GAL\_STATE),GAL\_OPENS,GAL\_CLOSES)

ARTWORK(ART\_NO,ARTIST\_CODE,ART\_TITLE,DATE\_ADDED)

EXHIBITION(ART\_NO,ARTIST\_CODE,EXH\_START,EXH\_END,EXH\_FEAT)

ARTIST(ARTIST\_CODE, ARTIST\_FNAME,ARTIST\_LNAME)

Full Dependencies:

(GAL\_ID→GAL\_NAME,GAL\_STREET,GAL\_STATE,GAL\_OPENS,GAL\_CLOSES)

(ART\_NO,ARTIST\_CODE,→ART\_TITLE,DATE\_ADDED)

(ART\_NO,ARTIST\_CODE,EXH\_START→,EXH\_END,EXH\_FEAT)

(ARTIST\_CODE→ ARTIST\_FNAME,ARTIST\_LNAME)

## Attribute Synthesis between SAMPLE 1 and SAMPLE 2

ARTWORK(ART\_NO,ARTIST\_CODE→ART\_TITLE,DATE\_ADDED)

ARTIST(ARTIST\_CODE→ARTIST\_FNAME,ARTIST\_LNAME)

GALLERY(GAL\_ID→ GAL\_NAME,GAL\_STREET,GAL\_STATE,GAL\_OPENS,GAL\_CLOSES)

MOVEMENT(ART\_NO,ARTIST\_CODE,DATE→ART\_STATUS)

EXHIBITION(ART\_NO,ARTIST\_CODE,EXH\_START→EXH\_END,EXH\_FEAT)

