

## Port Tours Available

### UNF

PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code, country\_name, (port\_temp\_mth, port\_temp\_avg\_high, port\_temp\_avg\_low), (tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair, tour\_availability, tour\_start\_time))

### 1NF

PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code, country\_name)

PORT\_TEMPERATURE( port\_code, port\_temp\_mth, port\_temp\_avg\_high, port\_temp\_avg\_low)

TOUR\_AVAILABLE( port\_code, tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair, tour\_availability, tour\_start\_time)

Partial Dependencies:

No Partial Dependencies

### 2NF

PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code, country\_name)

PORT\_TEMPERATURE( port\_code, port\_temp\_mth, port\_temp\_avg\_high, port\_temp\_avg\_low)

TOUR\_AVAILABLE( port\_code, tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair, tour\_availability, tour\_start\_time)

Transitive Dependencies:

country\_code --> country\_name

### 3NF

PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code)

COUNTRY( country\_code, country\_name)

PORT\_TEMPERATURE( port\_code, port\_temp\_mth, port\_temp\_avg\_high, port\_temp\_avg\_low)

TOUR\_AVAILABLE( port\_code, tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost,  
tour\_wheel\_chair, tour\_availability, tour\_start\_time)

Full Dependencies:

port\_code --> port\_name, country\_code

country\_code --> country\_name

port\_code, port\_temp\_mth --> port\_temp\_avg\_high, port\_temp\_avg\_low

port\_code, tour\_no --> tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair,  
tour\_availability, tour\_start\_time

## Port – Tour Participant Report

### UNF

TOUR( port\_code, tour\_no, tour\_name, tour\_date, tour\_start\_time, ( passenger\_id,  
passenger\_name, passenger\_language, cruise\_id, cruise\_name, payment\_received))

### 1NF

TOUR( port\_code, tour\_no, tour\_date, tour\_name, tour\_start\_time)

Participant( port\_code, tour\_no, tour\_date, passenger\_id, passenger\_name,  
passenger\_language, cruise\_id, cruise\_name, payment\_received)

Partial Dependencies:

passenger\_id --> passenger\_name, passenger\_language

Port\_code, tour\_no --> tour\_name, tour\_start\_time

### 2NF

TOUR( port\_code, tour\_no, tour\_date)

TOUR\_DETAIL( port\_code, tour\_no, tour\_name, tour\_start\_time)

PARTICIPANT( port\_code, tour\_no, tour\_date , passenger\_id, cruise\_id, cruise\_name,  
payment\_received)

PASSENGER( passenger\_id, passenger\_name, passenger\_language)

Transitive Dependencies:

cruise\_id --> cruise\_name

### 3NF

TOUR( port\_code, tour\_no, tour\_date, tour\_name, tour\_start\_time)

TOUR\_DETAIL( port\_code, tour\_no, tour\_name, tour\_start\_time)

PARTICIPANT( port\_code, tour\_no, tour\_date, passenger\_id, cruise\_id, payment\_received)

CRUISE( cruise\_id, cruise\_name)

PASSENGER( passenger\_id, passenger\_name, passenger\_language)

Full Dependencies:

port\_code, tour\_no --> tour\_name, tour\_start\_time

port\_code, tour\_no, tour\_date , passenger\_id --> cruise\_id, payment\_received

cruise\_id --> cruise\_name

passenger\_id --> passenger\_name, passenger\_language

### COLLECTED 3NF RELATIONS:

1.PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code)

2.COUNTRY( country\_code, country\_name)

3.PORT\_TEMPERATURE( port\_code, port\_temp\_mth, port\_temp\_avg\_high,  
port\_temp\_avg\_low)

4.TOUR\_AVAILABLE( port\_code, tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair, tour\_availability, tour\_start\_time)

5.TOUR( port\_code, tour\_no, tour\_date)

6.TOUR\_DETAIL( port\_code, tour\_no, tour\_name, tour\_start\_time)

7.PARTICIPANT( port\_code, tour\_no, tour\_date, passenger\_id, cruise\_id, payment\_received)

8.CRUISE( cruise\_id, cruise\_name)

9.PASSENGER( passenger\_id, passenger\_name, passenger\_language)

### ATTRIBUTE SYNTHESIS

1.

PORT\_TOUR\_AVAILABLE( port\_code, port\_name, country\_code)

2.

COUNTRY( country\_code, country\_name)

3.

PORT\_TEMPERATURE( port\_code, port\_temp\_mth, port\_temp\_avg\_high, port\_temp\_avg\_low)

4. & 6.

TOUR\_AVAILABLE( port\_code, tour\_no, tour\_name, tour\_desc, tour\_hours, tour\_cost, tour\_wheel\_chair, tour\_availability, tour\_start\_time)

5.

TOUR( port\_code, tour\_no, tour\_date)

7.

PARTICIPANT( port\_code, tour\_no, tour\_date, passenger\_id, cruise\_id, payment\_received)

8.

CRUISE( cruise\_id, cruise\_name)

9.

PASSENGER( passenger\_id, passenger\_name, passenger\_language)