Port Tours Available

UNF:

PORT(port_code, port_name, country_code, country_name, (porttemp_month, porttemp_avghigh, porttemp_avglow), (tour_num, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime))

1NF:

PORT(**port_code**, port_name, country_code, country_name)

PORT_TEMPERATURE(**port_code, porttemp_month**, porttemp_avghigh, porttemp_avglow)

TOUR(**port_code, tour_num**, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime)

Partial Dependencies:

No partial dependencies present

2NF:

PORT(**port_code**, port_name, country_code, country_name)

PORT_TEMPERATURE(**port_code, porttemp_month**, porttemp_avghigh, porttemp_avglow)

TOUR(**port_code, tour_num**, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime)

Transitive Dependencies:

country_code -> country_name

3NF:

PORT(**port_code**, port_name, country_code)

COUNTRY(**country_code**, country_name)

PORT_TEMPERATURE(**port_code, porttemp_month**, porttemp_avghigh, porttemp_avglow)

TOUR(**port_code, tour_num**, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime)

Full Dependencies:

port_code -> port_name, country_code

country_code -> country_name

port_code, porttemp_month -> porttemp_avghigh, porttemp_avglow

port_code, tour_num -> tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime

Tour Participation Report

UNF:

TOUR_INSTANCE(port_code, tour_num, tour_name, tour_date, tour_starttime, (pass_id, pass_name, pass_lang, cruise_id, cruise_name, payment_received)

1NF:

TOUR_INSTANCE(**port_code, tour_num, tour_date**, tour_name, tour_starttime)

TOUR_PASSENGER(**port_code, tour_num,** tour_date, **pass_id**, pass_name, pass_lang, cruise_id, cruise_name, payment_received)

Partial Dependencies:

port_code, tour_num -> tour_name, tour_starttime

pass_id -> pass_name, pass_lang, cruise_id, cruise_name

2NF:

TOUR_INSTANCE(**port_code, tour_num, tour_date**)

TOUR(**port_code, tour_num**, tour_name, tour_starttime)

TOUR_PASSENGER(**port_code, tour_num, pass_id**, payment_received)

PASSENGER(**pass_id**, pass_name, pass_lang, cruise_id, cruise_name)

Transitive Dependencies:

cruise_id -> cruise_name

3NF:

TOUR_INSTANCE(**port_code, tour_num, tour_date**)

TOUR(**port_code, tour_num**, tour_name, tour_starttime)

TOUR_PASSENGER(**port_code, tour_num, pass_id**, payment_received)

PASSENGER(**pass_id**, pass_name, pass_lang, cruise_id, cruise_name)

CRUISE(**cruise_id**, cruise_name)

Full Dependencies:

port_code, tour_num -> tour_name, tour_starttime

port_code, tour_num, pass_id -> payment_received

pass_id -> pass_name, pass_lang, cruise_id

cruise_id -> cruise_name

Collected 3NF Relations

1. PORT(**port_code**, port_name, country_code)
2. COUNTRY(**country_code**, country_name)
3. PORT_TEMPERATURE(**port_code, porttemp_month**, porttemp_avghigh, porttemp_avglow)
4. TOUR(**port_code, tour_num**, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime)
5. TOUR_INSTANCE(**port_code, tour_num, tour_date**)
6. TOUR(**port_code, tour_num**, tour_name, tour_starttime)
7. TOUR_PASSENGER(**port_code, tour_num, pass_id**, payment_received)
8. PASSENGER(**pass_id**, pass_name, pass_lang, cruise_id)
9. CRUISE(**cruise_id**, cruise_name)

Attribute Synthesis

1. PORT(**port_code**, port_name, country_code)
2. COUNTRY(**country_code**, country_name)
3. PORT_TEMPERATURE(**port_code, porttemp_month**, porttemp_avghigh, porttemp_avglow)

4 & 6. TOUR(**port_code, tour_num**, tour_name, tour_desc, tour_hrsreq, tour_cost, tour_wheelchair, tour_availability, tour_starttime)

5. TOUR_INSTANCE(**port_code, tour_num, tour_date**)
7. TOUR_INSTANCE_PASSENGER(**port_code, tour_num, tour_date, pass_id**, payment_received)
8. PASSENGER(**pass_id**, pass_name, pass_lang, cruise_id)
9. CRUISE(**cruise_id**, cruise_name)