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### UNF

CRUISE(cruise\_id, cruise\_name, cruise\_cost, (port\_code, port\_name, port\_latitude, port\_longitude, country\_code, country\_name, iti\_depart\_type, iti\_datetime))

### 1NF

CRUISE(cruise\_id, cruise\_name, cruise\_cost)

CKs:

cruise\_id

ITINERARY(cruise\_id, port\_code, port\_name, port\_latitude, port\_longitude, country\_code, country\_name, iti\_depart\_type, iti\_datetime)

CKs:

cruise\_id, iti\_datetime

Partial dependency:

No partial dependencies present

### 2NF

CRUISE(cruise\_id, cruise\_name, cruise\_cost)

ITINERARY(cruise\_id, port\_code, port\_name, port\_latitude, port\_longitude, country\_code, country\_name, iti\_depart\_type, iti\_datetime)

Transitive dependency:

port\_code → port\_name, port\_latitude, port\_longitude, country\_code

country\_code → country\_name

### 3NF

CRUISE(cruise\_id, cruise\_name, cruise\_cost)

ITINERARY(cruise\_id, iti\_datetime, port\_code, iti\_depart\_type)

PORT(port\_code , port\_name, port\_latitude, port\_longitude, country\_code)

COUNTRY(country\_code country\_name)

Full Dependencies:

cruise\_id → cruise\_name, cruise\_cost

cruise\_id, iti\_datetime → port\_code, iti\_depart\_type

port\_code → port\_name, port\_latitude, port\_longitude, country\_code

country\_code → country\_name