

0. Go to DB Designer, log in with your NCMC account, and create a new database using their "FERRY TICKET" template.:

I went to dbdesigner.net and signed in with google.

I then selected 'New Project' and selected the 'Ferry Ticket' template.

I then saved the template as a new file so that I could manipulate it.

1. Describe in detail everything that's happening in and between the seven (7) tables.:

The Ferry table represents the boats, holding the name and a description of each boat with a generic integer PK.

The Ferry table is referenced by the cabins, to associate which cabins are on which ferry, and it is referenced by different cruises, to associate which ferry provides which cruise.

The Cruise table then holds which ferry departs and arrives from which ports at which times, with ports being references to the id of an entry in the Port table, which holds the name and address of each port.

A cruise is then referenced by each entry in the Ticket table, which also references the the id of a Cabin entry and a QR code for the ticket.

The Cabin table then holds information about each cabin available, including the deck its on, cabin number, price, and a reference the id of an entry in the Ferry table, as well as a reference to a Cabin Type entry.

A Cabin Type table entry has an integer PK, name, description, and 'place_count'. I am unsure what 'place_count' would be but i could guess it would be the number of spots to sleep.

The Cabin Type id is referenced by the Services table. A Service table entry has an id, name, description, and the reference to the Cabin Type id. I presume each entry in the Services table represents services rendered such as room service, cocktail service, or cleaning service.

All tables in this database use an incrementing integer named 'id' as their primary key.

2. Write a query that finds all cruises that departed from Charlevoix, arrived in South Haven, and provided cocktail service. Include the address for both ports.:

Must include address for ports. Must find that with port id. JOIN? AS?

Unset

```
SELECT id, PD.address, PA.address
FROM Cruise
WHERE port_departure=(
    SELECT id
    FROM Port
    WHERE name='Charlevoix') AS PD
AND port_arrival=(
    SELECT id
    FROM Port
    WHERE name='South Haven') AS PA
AND ferry_id=(
    SELECT ferry_id
    FROM Cabin
    WHERE cabin_type_id=(
        SELECT cabin_type_id
        FROM Services
        WHERE name='cocktail'));
```

3. In your opinion, was the Port table written correctly? Please explain. HINT Question 2 has answer for question 3:

Use the address as the Primary Key