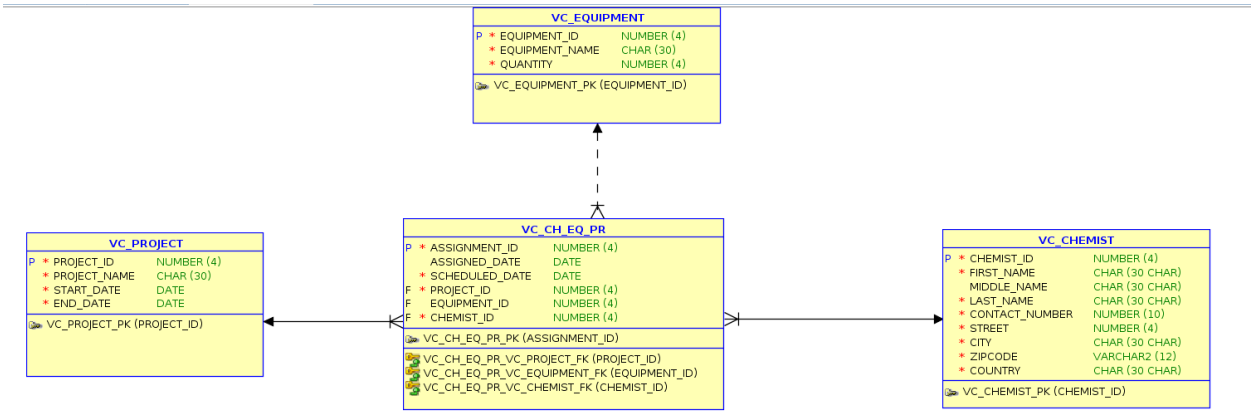
CS-GY 6083 - B, Spring 2022
Principles of Database Systems
Assignment: 3 [100 points]

Please submit your assignment on NYU Brightspace course site with a single PDF document attachment. Please mention Student ID, Name, Course, Section Number, and date of submission on first page of your submission. Each table in your submission of SQLs and their results should have your initial as prefix, e.g. AP_CUSTOMER, AP_ACCOUT etc. You can use either Oracle or MySQL for this assignment.

Problem 1: 50 points

Please consider following relational schema and find attached "Chemist_Equiment_Schema.sql" file. Replace all table names to prefix with your initial (e.g. AP_EQUIPMENT) in this file and run the file to create tables and data included in the file. DO NOT change the data.



Write SQL to answer following business questions.

--a.

List chemist id and their first name and last name of those chemist who have project assigned without equipment

-- b.

List chemist first name and last name, equipment name, and number of equipment used for those who have used maximum number of equipment.

-- c.

List project_id, equipment_id, and chemist_id for which equipment was assigned before project scheduled date and number of days before the equipment was assigned

--d.

List project id, equipment id, and chemist id for which equipment was assigned for highest numbers of day since project was scheduled.

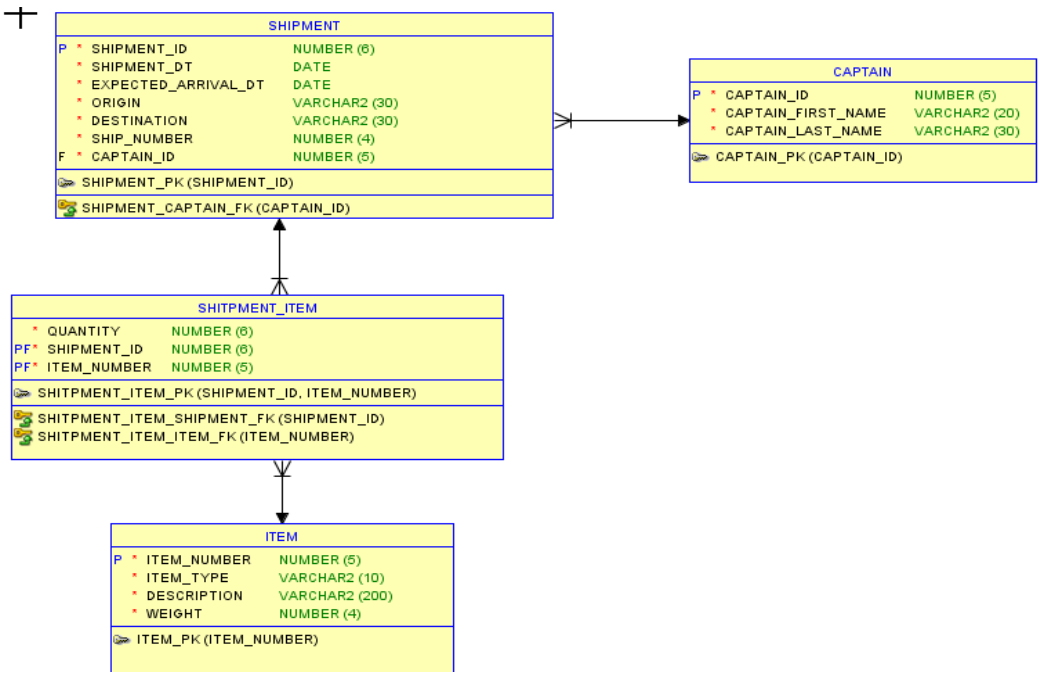
--e.

List name of Project, equipment name, and chemist first name and last name for which equipment was assigned for highest numbers of day since project was scheduled.

SUBMIT: Clearly visible screenshot of SQL code and its result for each of above five questions underneath each question.

Problem 2: 50 points

Please consider following relational schema and find attached "Shipment_Captain_Schmea.sql" file. Replace all table names to prefix with your initial (e.g. AP_SHIPMENT) in this file and run the file to create tables and data included in the file. DO NOT change the data.



--a.

List item number, type and their description of those items which never shipped

--b.

Create a View that provides all details of shipment, items, and captain for each shipment. Query the created view in order of shipment id

--c.

List captain id and their first name, last name and number of times they are assigned to shipment

--d.

For each shipment, list all details (Shipment ID, Shipment Date, Expected Arrival Date, Origin, Destination, Ship Number, and Captain ID) along with total weight on shipment. Exclude those shipment which has total weight less than 1000. Arrange your result in order of total weight

--e.

List top 3 shipments in terms of weight they carried. Your result should display Shipment ID, Shipment Date, Origin, Destination, Total Weight carried

SUBMIT: Clearly visible screenshot of SQL code and its result for each of above five questions underneath each question.