Assignment #1 – Subqueries

Due Date: As per dropbox

Purpose: The purpose of this assignment is to help you:

• SQL and subqueries

Instructions: Be sure to read the following general instructions carefully:

This assignment should be completed individually by all the students. Submit your solution through the dropbox.

**Assignment 1:**

Your files must be in sql script format (.txt for Turnitin) so that they can be copied and run in SQL Developer. Marks will be deducted.

Using the City Jail database from attachment.

Use an sql sub-query statement to answer the following:

The city’s Crime Analysis unit has submitted the following data requests. Provide the SQL statements using subqueries to satisfy the requests.

1. List of criminals with less than average violations and having aliases.
2. List criminal(s) that Crime charges court fee is greater than min per crime.
3. List Officers that have less of equal avg number of crimes assigned.
4. List criminals that have Max amount paid in crime charges per crime.
5. List criminals that have less or equal than average sentences issued.
6. List probation officers that have less than average criminals with sentences assigned with them.

**HINT:**

The following memo was used to create an initial database design (E-R model) for the City Jail that indicates entities, attributes (columns), primary keys, and relationships.

MEMO

To: Database Consultant

From: City Jail Information Director

Subject: Establishing a Crime-Tracking Database System

It was a pleasure meeting with you last week. I look forward to working with your company to create a much-needed crime-tracking system. As you requested, our project group has outlined the crime-tracking data needs we anticipate. Our goal is to simplify the process of tracking criminal activity and provide a more efficient mechanism for data analysis and reporting. Please review the data needs outlined below and contact me with any questions.

Criminals: name, address, phone number, violent offender status (yes/no), probation status (yes/no), and aliases

Crimes: classification (felony, misdemeanor, other), date charged, appeal status (closed, can appeal, in appeal), hearing date, appeal cutoff date (always 60 days after the hearing date), arresting officers (can be more than one officer), crime codes (such as burglary, forgery, assault; hundreds of codes exist), amount of fine, court fee, amount paid, payment due date, and charge status (pending, guilty, not guilty).

Sentencing: start date, end date, number of violations (such as not reporting to probation officer), and type of sentence ( jail period, house arrest, probation).

Appeals: appeal filing date, appeal hearing date, status (pending, approved, and disapproved).

Note: Each crime case can be appealed up to three times.

Police officers: name, precinct, badge number, phone contact, status (active/inactive)

**Additional notes:**

* A single crime can involve multiple crime charges, such as burglary and assault.
* Criminals can be assigned multiple sentences. For example, a criminal might be required to serve a jail sentence followed by a period of probation.

Answer each or the questions with an sql statement that contains at least one subquery.

**Hint:** Use subqueries, and work “inside out” toward the result; that is, retrieve the

employee number of N. Smith, search for the codes of all courses he ever taught, and so on.

*Marks are and will entirely based only on correct result of code submitted***.**