

Joshua Sandoval, John Williams, Bright Chung

Info 364

Dr. Etudo

4/21/2022

Cell Divide LLC

Database Description

The Virginia Department of Corrections has tasked Cell Divide LLC to come up with a database system that can store, manage, and query appointments for visits when it comes to the inmates housed at a new city jail called Panopticon. This new jail is being built to solve the overcrowding situation at the current facility, therefore it needs a way to maintain appointments for visits. However, the Virginia Department of Corrections wants Cell Divide LLC to come up with an improved way to maintain and manage visitations because the old way proves to be too inefficient and disorderly in terms of time and resources. Benefits would include ease of information being traveled from user to user in terms of being able to note when an inmate is being visited and what guard is assigned to that inmate, increased productivity of employees since an employee would understand where to be at a given time, zero data redundancy, and less taxpayer money being spent on visitations. If this trial is successful, the DOC will begin the implementation of this improved version of visitations throughout the Commonwealth of Virginia. Users of this new database will include supervisors checking on visitation records and guards who have to check which visitation to attend.

Business Rules

1. An inmate in this proposed database can have many charges, however, charge information is unique to each inmate thus a charge may only be assigned to one inmate
2. A visitor to the facility can store many items in the locker inventory.
3. An employee can only be a part of one department.
4. An employee could either be a guard who reports to a manager or a manager.
5. Sentence duration for a charge is attributed to the charge itself rather than to the inmate.
6. Private visits are viewed through a window by one guard.
7. NonPrivate visits may have one to multiple guards on duty.
8. A visit request should lead to a visit if the visit request is kept.
9. Culminating charges and sentences for inmates

User Requirements

The database would allow users to see stored records of visits between inmates and visitors. The user would be able to see which visitor wants to visit a given inmate, as well as which guard will oversee the visit. Users of the database would also be able to view if the visit was private or non-private, as well as which inmates and guards are allowed to participate in either one of those types of visits if at all possible.

Entity Definitions

Visitor - an individual who meets an inmate

Locker Inventory - a collection of items that may have been on a visitor's person

Inmate - an individual who is incarcerated at the facility

Charge - a crime committed by an inmate

Visit Request - an associative entity that collects information on visitor and inmate that leads to a visit

Visit - an event that takes place primarily between an inmate and a visitor,

Private Visit - a visit that includes one guard

Non-Private Visit - a visit that could include multiple guards

Location - the location of where a visit takes place in the facility

Guard On Duty - an associative entity that displays the non-private visit and the guard(s) present during that type of visit

In Attendance - an associative entity used to quickly reference which inmate is meeting which visitor(s) in a non-private meeting

Employee - a worker at the facility

Department - an entity that stores the different types of employee divisions

Department Lead - an associative entity that shows which employee is the manager of a specific department

Entity Relationships

- Charge to Inmate

The relationship between a charge and inmate. Inmates may have multiple charges but each charge is only applicable to a single inmate.

- Locker Inventory to Visitor

The relationship between visitor and locker inventory. A visitor may have multiple items or none checked into the locker, while each item can be traced back to its one and only visitor.

- Inmate to Visit Request

The relationship between inmate and visit request. An inmate may be a part of multiple visit requests or none, while a visit request has one and only one inmate

- Visitor to Visit Request

The relationship between visitor and visit request. A visitor may be a part of multiple visit requests or none, while a visit request has one and only one visitor.

- Visit Request to Private Visit

The relationship between visit request and private visit where, if kept, the former leads to the latter. A private visit must have a visit request while A visit request does not necessitate a visit

- Visit Request to Non-Private Visit

The relationship between visit request and non-private visit where, if kept, the former leads to the latter. A public visit must have a visit request while A visit request does not necessitate a visit

- Location to Visit

The relationship between location and visit. A single location may host multiple visits or none at all, while a visit needs to occur at one and only one location.

- Visit to Private Visit

The relationship between visit and private visit. When a visit occurs, it may or may not be classified as a private visit.

- Visit to Non-Private Visit

The relationship between visit and non-private visit. When a visit occurs, it may or may not be classified as a non-private visit

- Employee to Private Visit

The relationship between employee and private visit. An employee may be a part of multiple private visits or none, while a private visit must have at least one employee present.

- Non-Private Visit to In Attendance

The relationship between non-private visit and in attendance. A non-private visit may be a part of multiple instances of in attendance or none, while an instance of in attendance has one and only one non-private visit.

- Visitor to In Attendance

The relationship between visitor and in attendance. A visitor may be a part of multiple instances of in attendance or none, while an instance of in attendance has one and only visitor.

- Non-Private Visit to Guard On Duty

The relationship between non-private visit and guard on duty. A non-private visit may be a part of multiple instances of guard on duty or at least one, while guard on duty has one and only one non-private visit.

- Employee to Guard On Duty

The relationship between employee and guard on duty. An employee may be a part of multiple instances of guard on duty or at least one, while guard on duty has one and only one employee.

- Employee to Employee

The relationship between employee and itself. An employee is assigned to one and only one superior employee (manager) while a manager may be assigned multiple employees or at least one.

- Employee to Department Lead

The relationship between employee and department lead. An employee who is classified as a manager may be a part of multiple instances of department lead or at least one, while a department lead instance has one and only manager.

- Department to Department Lead

The relationship between department and department lead. A department may be a part of multiple department lead or at least one while an instance of a department lead has one and only one department.

- Department to Employee

The relationship between department and employee. A department may have multiple employees or at least one, while an instance of an employee is tied to one and only one department.

Attributes

InmateID - uniquely identifies an inmate.

EntryDate - the date an inmate was admitted

NameFirst - the first name of either visitor or inmate

NameLast - the last name of either visitor or inmate

Address - the address of either the visitor or inmate

VisitorID - uniquely identifies an inmate

DOB - the date of birth of the visitor

ChargeID - uniquely identifies a charge in our database

ChargeName - the common name of the charge

Ruling - whether the inmate was guilty or not of the charge

Sentence - Duration of punishment for the charge

ItemID - uniquely identifies an item

Item - common name for an item

DateTaken - timestamp of when the item was taken

VisitReqID - uniquely identifies a request for a visit

StartTime - when a visit request is supposed to start or when a visit actually takes place

EndTime - when a visit request is supposed to end or when a visit actually ends

Date - the calendar year, month, and day of a visit request

LocationID - uniquely identifies a location

Wing - name of the location, an area in the facility

AppointmentID - uniquely identifies a visit

VisitTime - the duration of a visit in minutes

VisitType - identifies the type of visit

PrivateRoom - identifies the private room being used in a private visit

PublicRoom - identifies the public room being used in a public visit

EmployeeID - uniquely identifies an employee at the facility

Hours - quantifies the amount of time an employee has spent so far at the facility for the day

Name - the name of the employee

ShiftEndTime - when an employee ends their shift

DeptID - uniquely identifies a department

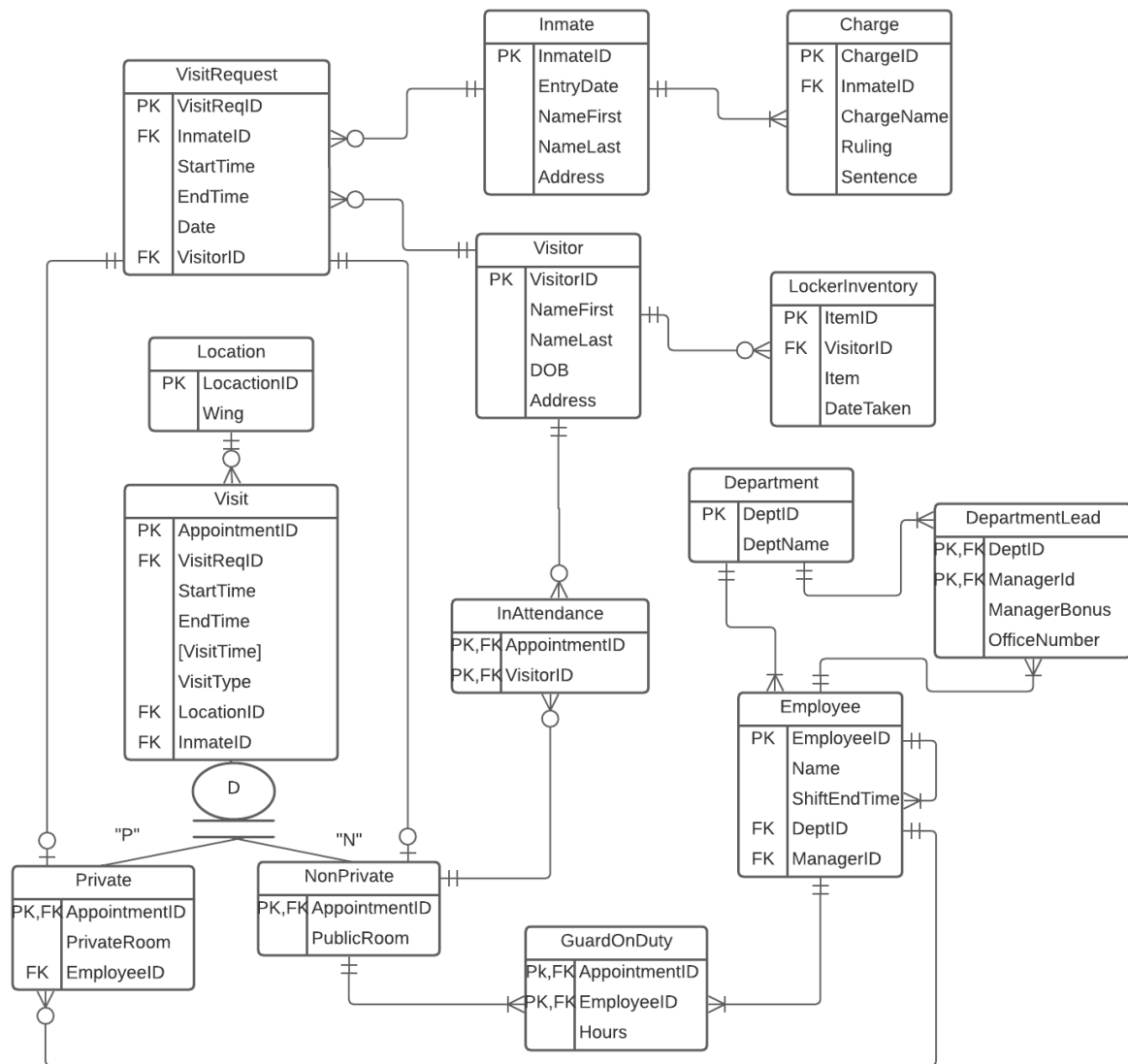
DeptName - the colloquial name for the department

ManagerID - uniquely identifies who is a manager and which manager is the supervisor of an employee

ManagerBonus - Monetary bonus awarded to managers per dept

OfficeNumber - Location of Managers Office

EERD



3NF

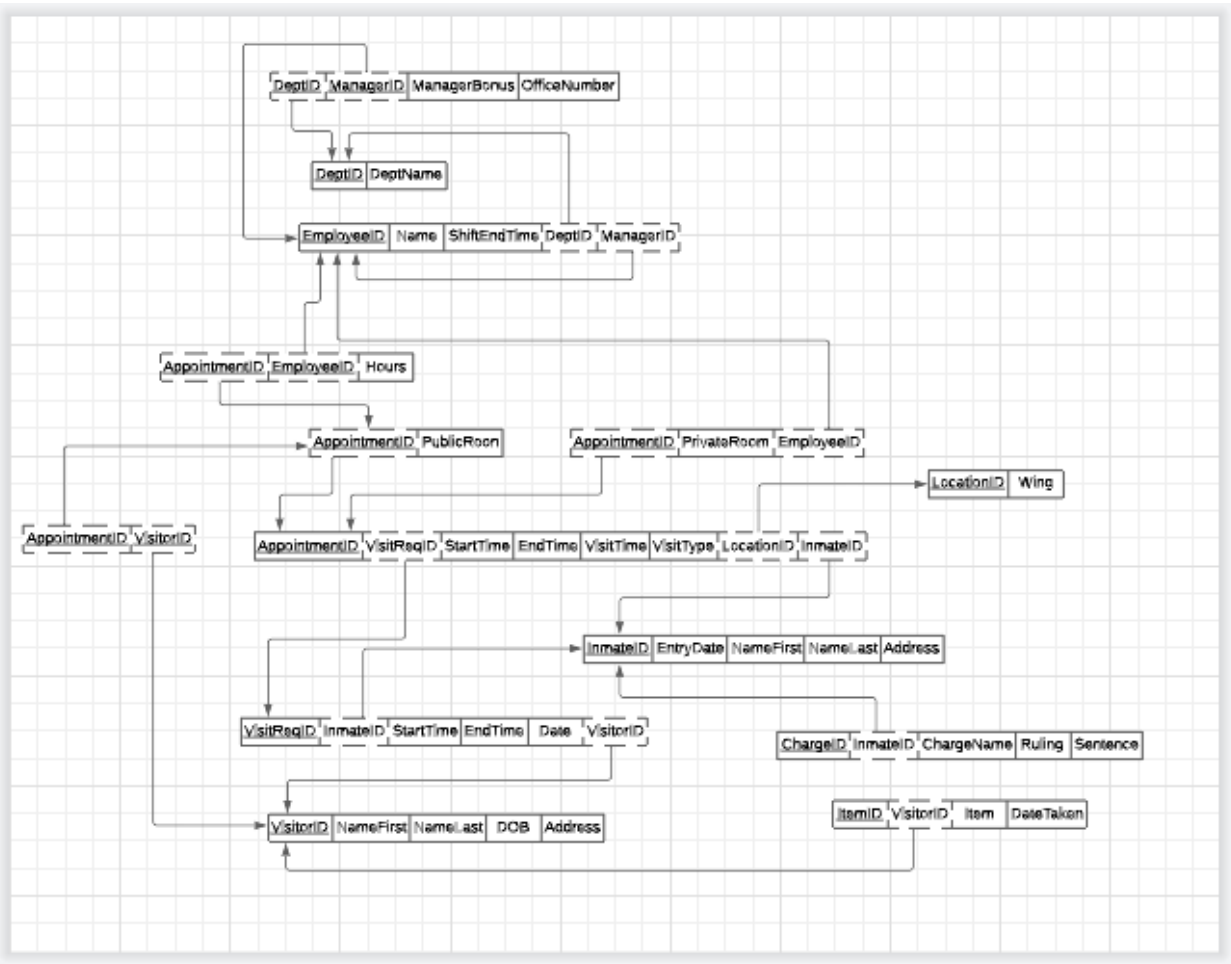


Table Descriptions

DESCRIBE Department;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|------------|----------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| DEPARTMENT | DEPTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | DEPTNAME | VARCHAR2 | 20 | - | - | - | ✓ | - | - |

DESCRIBE Employee;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|----------|--------------|--------------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPLOYEE | EMPLOYEEID | NUMBER | 22 | - | - | 1 | - | - | - |
| | ENAME | VARCHAR2 | 23 | - | - | - | ✓ | - | - |
| | SHIFTENDTIME | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |
| | DEPTID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | MANAGERID | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE DepartmentLead;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|----------------|--------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| DEPARTMENTLEAD | DEPTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | MANAGERID | NUMBER | 22 | - | - | 2 | - | - | - |
| | MANAGERBONUS | NUMBER | 22 | - | - | - | ✓ | - | - |
| | OFFICENUMBER | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE LocationV;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-----------|------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| LOCATIONV | LOCATIONID | NUMBER | 22 | - | - | 1 | - | - | - |
| | WING | VARCHAR2 | 10 | - | - | - | ✓ | - | - |

DESCRIBE Charge;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------|------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| CHARGE | CHARGEID | NUMBER | 22 | - | - | 1 | - | - | - |
| | INMATEID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | CHARGENAME | VARCHAR2 | 30 | - | - | - | ✓ | - | - |
| | RULING | VARCHAR2 | 10 | - | - | - | ✓ | - | - |
| | SENTENCE | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE Inmate;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------|-----------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| INMATE | INMATEID | NUMBER | 22 | - | - | 1 | - | - | - |
| | ENTRYDATE | DATE | 7 | - | - | - | ✓ | - | - |
| | NAMEFIRST | VARCHAR2 | 15 | - | - | - | ✓ | - | - |
| | NAMELAST | VARCHAR2 | 15 | - | - | - | ✓ | - | - |
| | ADDRESS | VARCHAR2 | 25 | - | - | - | ✓ | - | - |

DESCRIBE Visitor;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|---------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| VISITOR | VISITORID | NUMBER | 22 | - | - | 1 | - | - | - |
| | NAMEFIRST | VARCHAR2 | 15 | - | - | - | ✓ | - | - |
| | NAMELAST | VARCHAR2 | 15 | - | - | - | ✓ | - | - |
| | DATEOFBIRTH | DATE | 7 | - | - | - | ✓ | - | - |
| | ADDRESS | VARCHAR2 | 25 | - | - | - | ✓ | - | - |

DESCRIBE LockerInventory;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-----------------|-----------|--------------|--------|-----------|-------|-------------|----------|---------|---------|
| LOCKERINVENTORY | ITEMID | NUMBER | 22 | - | - | 1 | - | - | - |
| | VISITORID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | ITEM | VARCHAR2 | 20 | - | - | - | ✓ | - | - |
| | DATETAKEN | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |

DESCRIBE VisitRequest;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|------------|--------------|--------|-----------|-------|-------------|----------|---------|---------|
| VISITREQUEST | VISITREQID | NUMBER | 22 | - | - | 1 | - | - | - |
| | INMATEID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | STARTTIME | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |
| | ENDTIME | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |
| | VISITDATE | DATE | 7 | - | - | - | ✓ | - | - |
| | VISITORID | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE Visit;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------|---------------|--------------|--------|-----------|-------|-------------|----------|---------|---------|
| VISIT | APPOINTMENTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | VISITREQID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | STARTTIME | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |
| | ENDTIME | TIMESTAMP(0) | 7 | - | 0 | - | ✓ | - | - |
| | VISITTIME | NUMBER | 22 | - | 0 | - | ✓ | - | - |
| | VISITTYPE | CHAR | 1 | - | - | - | ✓ | - | - |
| | LOCATIONID | NUMBER | 22 | - | - | - | ✓ | - | - |
| | INMATEID | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE PrivateV;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|----------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| PRIVATEV | APPOINTMENTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | PRIVATEROOM | NUMBER | 22 | - | - | - | ✓ | - | - |
| | EMPLOYEEID | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE NonPrivateV;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| NONPRIVATEV | APPOINTMENTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | PUBLICROOM | NUMBER | 22 | - | - | - | ✓ | - | - |

DESCRIBE InAttendance;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|--------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| INATTENDANCE | APPOINTMENTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | VISITORID | NUMBER | 22 | - | - | 2 | - | - | - |

DESCRIBE GuardOnDuty;

| Table | Column | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-------------|---------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| GUARDONDUTY | APPOINTMENTID | NUMBER | 22 | - | - | 1 | - | - | - |
| | EMPLOYEEID | NUMBER | 22 | - | - | 2 | - | - | - |
| | HOURSON | NUMBER | 22 | - | 0 | - | ✓ | - | - |

SELECT * FROM department

| DEPTID | DEPTNAME |
|--------|----------|
| 1 | Alpha |
| 2 | Beta |
| 3 | Gamma |

3 rows selected. 0.00 seconds

SELECT * FROM employee

| EMPLOYEEID | ENAME | SHIFTENDTIME | DEPTID | MANAGERID |
|------------|------------------|-----------------------|--------|-----------|
| 1 | Josh Sandoval | 22-APR-22 12.00.00 PM | 1 | 1 |
| 2 | John Williams | 21-APR-22 12.00.00 PM | 2 | 2 |
| 3 | Bright Chung | 21-APR-22 12.00.00 PM | 3 | 3 |
| 4 | Daniel Plainview | 21-APR-22 12.00.00 PM | 1 | 1 |
| 5 | Charles Xavier | 21-APR-22 12.00.00 PM | 2 | 2 |
| 6 | Anton Chugirh | 21-APR-22 12.00.00 PM | 3 | 3 |
| 7 | Joe List | 21-APR-22 12.00.00 PM | 1 | 1 |
| 8 | Andy Hollis | 21-APR-22 12.00.00 PM | 2 | 2 |

8 rows selected. 0.00 seconds

1 **SELECT * FROM departmentlead;**

| DEPTID | MANAGERID | MANAGERBONUS | OFFICENUMBER |
|--------|-----------|--------------|--------------|
| 1 | 1 | 10000 | 300 |
| 2 | 2 | 9000 | 200 |
| 3 | 3 | 7000 | 100 |

3 rows returned in 0.01 seconds [Download](#)

SELECT * FROM locationv

| LOCATIONID | WING |
|------------|-------|
| 1 | North |
| 2 | South |
| 3 | East |
| 4 | West |

4 rows selected. 0.00 seconds

SELECT * FROM charge

| CHARGEID | INMATEID | CHARGENAME | RULING | SENTENCE |
|----------|----------|-------------------------------|--------|----------|
| 1 | 1 | Homicide | Guilty | 10 |
| 2 | 1 | Double Homicide | Guilty | 20 |
| 3 | 2 | Arson | Guilty | 15 |
| 4 | 3 | Disturbing The Peace | Guilty | 1 |
| 5 | 4 | 3rd Degree Homicide | Guilty | 5 |
| 6 | 4 | Manufacturing Methamphetamine | Guilty | 12 |
| 7 | 5 | Battery | Guilty | 1 |
| 8 | 6 | Wreckless Endangerment | Guilty | 1 |
| 9 | 6 | Racketeering | Guilty | 1 |

9 rows selected. 0.00 seconds

SELECT * FROM inmate

| INMATEID | ENTRYDATE | NAMEFIRST | NAMELAST | ADDRESS |
|----------|------------|-----------|------------|-----------------------|
| 1 | 01/02/2018 | Bruce | Deroux | 2846 Wildberry Drive |
| 2 | 03/15/2019 | Diego | Vista | 3234 Sweet Aroma Lane |
| 3 | 01/20/2015 | Declan | Price | 8910 Sunset Blvd |
| 4 | 12/07/2021 | Zooey | Dayshannel | 9282 Polterselt Drive |
| 5 | 12/08/2021 | Ambre | Jered | 2901 Tulip Street |
| 6 | 01/02/2019 | Billiam | Alexander | 8167 Cherry Lane |

6 rows selected. 0.00 seconds

SELECT * FROM visitor

| VISITORID | NAMEFIRST | NAMELAST | DATEOFBIRTH | ADDRESS |
|-----------|-----------|----------|-------------|---------------------|
| 1 | Anne | Deuth | 04/10/1970 | 3121 Acron Lane |
| 2 | Juyeon | Kim | 05/21/1998 | 8991 Eclipse Blvd |
| 3 | Emily | Signore | 01/09/1999 | 3199 Dawn Street |
| 4 | Jerry | Signfell | 09/11/1982 | 3135 3rd Avenue |
| 5 | Hannibal | Lecture | 12/12/1969 | 9991 Butch Pkwy |
| 6 | Destin | Lance | 11/11/1990 | 3121 Seteret Street |
| 7 | Carl | Lecture | 12/12/1969 | 9991 Butch Pkwy |
| 8 | Jeff | Lance | 11/11/1990 | 3121 Seteret Street |
| 9 | Suzy | Kim | 11/11/1990 | 3121 Seteret Street |

9 rows selected. 0.00 seconds

SELECT * FROM lockerinventory

| ITEMID | VISITORID | ITEM | DATETAKEN |
|--------|-----------|-------|-----------------------|
| 1 | 2 | Hat | 21-APR-22 10.20.00 AM |
| 2 | 9 | Belt | 21-APR-22 10.20.00 AM |
| 3 | 1 | Book | 21-APR-22 10.20.00 AM |
| 4 | 3 | Knife | 21-APR-22 10.20.00 AM |
| 5 | 4 | Gun | 21-APR-22 10.20.00 AM |
| 6 | 5 | Fork | 21-APR-22 10.20.00 AM |

6 rows selected. 0.02 seconds

SELECT * FROM visitrequest

| VISITREQID | INMATEID | STARTTIME | ENDTIME | VISITDATE | VISITORID |
|------------|----------|-----------------------|-----------------------|------------|-----------|
| 1 | 1 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 1 |
| 2 | 2 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 2 |
| 3 | 3 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 3 |
| 4 | 4 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 4 |
| 5 | 5 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 5 |
| 6 | 6 | 21-APR-22 10.30.00 AM | 21-APR-22 11.00.00 AM | 04/21/2022 | 6 |
| 7 | 1 | 21-APR-22 07.30.00 AM | 21-APR-22 08.00.00 AM | 04/21/2022 | 6 |
| 8 | 1 | 21-APR-22 06.00.00 AM | 21-APR-22 06.30.00 AM | 04/21/2022 | 2 |
| 9 | 2 | 21-APR-22 05.00.00 AM | 21-APR-22 05.30.00 AM | 04/21/2022 | 2 |

9 rows selected. 0.00 seconds

SELECT * FROM visit

| APPOINTMENTID | VISITREQID | STARTTIME | ENDTIME | VISITTIME | VISITTYPE | LOCATIONID | INMATEID |
|---------------|------------|-----------------------|-----------------------|-----------|-----------|------------|----------|
| 1 | 1 | 21-APR-22 10.31.00 AM | 21-APR-22 11.33.00 AM | 32 | N | 1 | 1 |
| 2 | 2 | 21-APR-22 10.31.00 AM | 21-APR-22 11.32.00 AM | 31 | N | 2 | 2 |
| 3 | 3 | 21-APR-22 10.31.00 AM | 21-APR-22 11.34.00 AM | 33 | N | 3 | 3 |
| 4 | 4 | 21-APR-22 10.31.00 AM | 21-APR-22 11.32.00 AM | 31 | N | 4 | 4 |
| 5 | 5 | 21-APR-22 10.31.00 AM | 21-APR-22 11.32.00 AM | 31 | P | 1 | 5 |
| 6 | 6 | 21-APR-22 10.31.00 AM | 21-APR-22 11.32.00 AM | 31 | P | 2 | 6 |
| 7 | 7 | 21-APR-22 07.35.00 AM | 21-APR-22 08.01.00 AM | 26 | P | 3 | 1 |
| 8 | 8 | 21-APR-22 06.01.00 AM | 21-APR-22 06.30.00 AM | 29 | P | 4 | 2 |

8 rows selected. 0.00 seconds

SELECT * FROM privatev

| APPOINTMENTID | PRIVATEROOM | EMPLOYEEID |
|---------------|-------------|------------|
| 5 | 1 | 1 |
| 6 | 2 | 2 |
| 7 | 3 | 3 |
| 8 | 4 | 4 |

4 rows selected. 0.00 seconds

SELECT * FROM nonprivatev

| APPOINTMENTID | PUBLICROOM |
|---------------|------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |

4 rows selected. 0.00 seconds

Rows selected: 0.00 seconds

SELECT * FROM inattendance

| APPOINTMENTID | VISITORID |
|---------------|-----------|
| 1 | 1 |
| 1 | 5 |
| 2 | 2 |
| 2 | 6 |
| 3 | 3 |
| 3 | 7 |
| 4 | 4 |
| 4 | 8 |

8 rows selected. 0.01 seconds

SELECT * FROM guardonduty

| APPOINTMENTID | EMPLOYEEID | HOURSON |
|---------------|------------|---------|
| 1 | 5 | 7 |
| 2 | 6 | 6 |
| 3 | 7 | 5 |
| 4 | 8 | 8 |

Queries

- 1. Select Inmate First Name and Last Name, Charge id, and Sentence where sentence length is greater than 5 years

```
SELECT namefirst, namelast, chargeid, sentence
FROM inmate i JOIN charge c on i.inmateid = c.inmateid
WHERE sentence > 5;
```

SELECT namefirst, namelast, chargeid, sentence FROM inmate i JOIN charge c on i.inmateid = c.inmateid WHERE sentence > 5

| NAMEFIRST | NAMELAST | CHARGEID | SENTENCE |
|-----------|------------|----------|----------|
| Bruce | Deroux | 1 | 10 |
| Bruce | Deroux | 2 | 20 |
| Diego | Vista | 3 | 15 |
| Zoey | Dayshannel | 6 | 12 |

- 2. Select employee id and employee name for all employees in department with ID =3

```
SELECT employeeid, ename FROM employee
WHERE DEPTID = 3;
```

| EMPLOYEEID | ENAME |
|------------|---------------|
| 3 | Bright Chung |
| 6 | Anton Chugirh |

--3.SELECT all items in locker for visitors with last name Kim

```
SELECT namefirst, namelast, item
FROM Visitor v JOIN lockerinventory i
ON v.visitorid = i.visitorid
WHERE namelast = 'Kim';
```

| NAMEFIRST | NAMELAST | ITEM |
|-----------|----------|------|
| Juyeon | Kim | Hat |
| Suzy | Kim | Belt |

--4. SELECT names of all visitors, name of inmate, apptid, for all non private visits

```
SELECT i.appointmentid, v.namefirst, v.namelast, ii.namefirst, ii.namelast
FROM visitor v JOIN inattendance i
ON v.visitorid = i.visitorid JOIN nonprivatev n
ON i.appointmentid = n.appointmentid JOIN visitrequest vr
ON n.appointmentid = vr.visitreqid JOIN inmate ii
ON vr.inmateid = ii.inmateid
ORDER BY appointmentid;
```

| APPOINTMENTID | NAMEFIRST | NAMELAST | NAMEFIRST | NAMELAST |
|---------------|-----------|----------|-----------|------------|
| 1 | Anne | Deuth | Bruce | Deroux |
| 1 | Hannibal | Lecture | Bruce | Deroux |
| 2 | Juyeon | Kim | Diego | Vista |
| 2 | Destin | Lance | Diego | Vista |
| 3 | Carl | Lecture | Declan | Price |
| 3 | Emily | Signore | Declan | Price |
| 4 | Jeff | Lance | Zoey | Dayshannel |
| 4 | Jerry | Signfell | Zoey | Dayshannel |

--5. SELECT Manager name, dept ID, and Dept title for each department

```
SELECT ename as EmployeeName, e.managerid as employeeid, deptname
FROM departmentlead dl JOIN department d
ON dl.deptid = d.deptid JOIN employee e
ON d.deptid = e.deptid
WHERE dl.managerid = e.employeeid;
```

| EMPLOYEENAME | EMPLOYEEID | DEPTNAME |
|---------------|------------|----------|
| Josh Sandoval | 1 | Alpha |
| John Williams | 2 | Beta |
| Bright Chung | 3 | Gamma |

--6. Select the name of the guard on duty and the #hours who has the most hours in a single shift

```

Select ename, hourson
FROM guardonduty g JOIN employee e
ON g.employeeid = e.employeeid
ORDER BY hourson DESC
FETCH FIRST 1 ROW ONLY;

```

| ENAME | HOURSON |
|-------------|---------|
| Andy Hollis | 8 |

--7. Display all appointment id's and the location names associated with the appointments for inmate with ID = 2

```

SELECT appointmentid, wing
FROM locationv l JOIN visit v
ON l.locationid = v.locationid
WHERE inmateid = 2;

```

| APPOINTMENTID | WING |
|---------------|-------|
| 2 | South |
| 8 | West |

--8. Display Employee name, appt id, and inmate name for all private appointments

```

SELECT ename as employeeename , appointmentid, namefirst as InmateFirst, namelast as
InmateLast
FROM privatev v join employee e
ON v.employeeid = e.employeeid JOIN visitrequest vr
ON v.appointmentid = vr.visitreqid JOIN inmate i
ON vr.inmateid = i.inmateid;

```

| EMPLOYEENAME | APPOINTMENTID | INMATEFIRST | INMATELAST |
|------------------|---------------|-------------|------------|
| Bright Chung | 7 | Bruce | Deroux |
| Daniel Plainview | 8 | Bruce | Deroux |
| Josh Sandoval | 5 | Ambre | Jered |
| John Williams | 6 | Billiam | Alexander |

--9. SELECT Employee name and Department Name for all employees in department with ID=2

```

SELECT ename, deptname
FROM employee e JOIN department d
ON e.deptid = d.deptid
WHERE e.deptid = 2;

```

| ENAME | DEPTNAME |
|---------------|----------|
| Bright Chung | Gamma |
| Anton Chugirh | Gamma |

--10. Display name and total sentence for each inmate high to low

```

SELECT namefirst, namelast, SUM(sentence)
FROM charge i JOIN inmate c
ON i.inmateid = c.inmateid
GROUP BY namefirst, namelast
order by SUM(sentence) DESC;

```

| NAMEFIRST | NAMELAST | SUM(SENTENCE) |
|-----------|------------|---------------|
| Bruce | Deroux | 30 |
| Zoey | Dayshannel | 17 |
| Diego | Vista | 15 |
| Billiam | Alexander | 2 |
| Declan | Price | 1 |
| Ambre | Jered | 1 |

--11. Which inmate has the lowest sentence

```

SELECT namefirst, namelast, SUM(sentence)
FROM charge i JOIN inmate c
ON i.inmateid = c.inmateid
GROUP BY namefirst, namelast
order by SUM(sentence) ASC
FETCH FIRST 1 ROW ONLY;

```

| NAMEFIRST | NAMELAST | SUM(SENTENCE) |
|-----------|----------|---------------|
| Declan | Price | 1 |

--12. Display a rank based on Descending total sentencing

```

SELECT namefirst, namelast, RANK() OVER (ORDER BY tsentence DESC) as rankk
FROM
(
SELECT namefirst, namelast, SUM(sentence) as tsentence

```

```

FROM (
    SELECT nameFirst, Namelast, chargename, sentence
    FROM charge i JOIN inmate c
    ON i.inmateid = c.inmateid
)
GROUP BY nameFirst, NameLast
);

```

| NAMEFIRST | NAMELAST | RANKK |
|-----------|------------|-------|
| Bruce | Deroux | 1 |
| Zoey | Dayshannel | 2 |
| Diego | Vista | 3 |
| Billiam | Alexander | 4 |
| Declan | Price | 5 |
| Ambre | Jered | 5 |

--13. Display inmate name of inmate with the lowest rank and highest sentence

```

SELECT * FROM(
    SELECT namefirst, namelast, RANK() OVER (ORDER BY tsentence DESC) as rankk
    FROM
    (
        SELECT namefirst, namelast, SUM(sentence) as tsentence
        FROM (
            SELECT nameFirst, Namelast, chargename, sentence
            FROM charge i JOIN inmate c
            ON i.inmateid = c.inmateid
        )
        GROUP BY nameFirst, NameLast
    )
    WHERE rankk = 1;

```

| NAMEFIRST | NAMELAST | RANKK |
|-----------|----------|-------|
| Bruce | Deroux | 1 |

--14. Display Visitor ID who has knife in storage

```

SELECT visitorid, item
FROM lockerinventory
WHERE item = 'Knife';

```

| VISITORID | ITEM |
|-----------|-------|
| 3 | Knife |

--15. What is the name of the visitor associated with the knife in storage

```
SELECT namefirst, namelast, l.visitorid, item
FROM lockerinventory l JOIN visitor v
ON l.visitorid = v.visitorid
WHERE item = 'Knife';
```

| NAMEFIRST | NAMELAST | VISITORID | ITEM |
|-----------|----------|-----------|-------|
| Emily | Signore | 3 | Knife |