

Criminals:

1. Name
2. Address
3. phone number
4. violent offender status (yes/no)
5. probation status (yes/ no)
6. aliases

Crimes:

1. classification (felony, misdemeanor, other)
2. date charged
3. appeal status (closed, can appeal, in appeal)
4. hearing date
5. appeal cutoff date (always 60 days after the hearing date)
6. arresting officers (can be more than one officer)
7. crime codes (such as burglary, forgery, assault; hundreds of codes exist)
8. amount of fine
9. court fee
10. amount paid
11. payment due date
12. charge status (pending, guilty, not guilty)

Sentencing:

1. start date
2. end date
3. number of violations (such as not reporting to probation officer)
4. type of sentence (jail period, house arrest, probation)

Appeals:

1. appeal filing date
2. appeal hearing date
3. status (pending, approved, and disapproved)
4. Note: Each crime case can be appealed up to three times

Police officers:

1. Name
2. Precinct
3. badge number
4. phone contact
5. 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.

Part 2:

In part one, you designed the new database for City Jail. Now you need to create all the tables for the database. First, create all the tables using the information outlined in **Section A (See page 98 – page 101)**. Second, make the modifications outlined in Section B. Save all SQL statements used to accomplish these tasks.

Section B

❏ Add a default value of U for the Classification column of the Crimes table.

Page2

- ☐ Add a column named Date_Recorded to the Crimes table. This column needs to hold date values and should be set to the current date by default.
- ☐ Add a column to the Prob_officers table to contain the pager number for each officer. The column needs to accommodate a phone number, including area code. Name the column Pager#.
- ☐ Change the Alias column in the Aliases table to accommodate up to 20 characters.

Part 3:

In Part2 you have designed and created tables for the City Jail database. These tables don't include any constraints. Review the information in **Chapters 1 and 3** case studies to determine what constraints you might need for the City Jail database.

First, using the format in the following chart, create a list of constraints needed. Second, create and execute all the SQL statements needed to add these constraints. Follow these steps to create and alter the tables:

1. First, drop the APPEALS, CRIME_OFFICERS, and CRIME_CHARGES tables constructed in Chapter 3. These three tables are to be built last, using a CREATE TABLE command that includes all the necessary constraints.
2. Second, use the ALTER TABLE command to add all constraints to the existing tables. Note that the sequence of constraint addition has an impact. Any tables referenced by FOREIGN KEYS must already have the PRIMARY KEY created.
3. Third, use the CREATE TABLE command, including all constraints, to build the three tables dropped in the first step.

Part 4:

Execute the **CityJail_5.sql (You can find it under lessons Folder on Blackboard)** script to rebuild the CRIMINALS and CRIMES tables of the City Jail database. The statements at the beginning of this script drop existing tables in your schema with the same table names.

Review the script so that you're familiar with the table structure and constraints, and then do the following:

1. Create and execute statements to perform the following DML activities. Save the changes permanently to the database.
 - a. Create a script to allow a user to add new criminals (providing prompts to the user) to the CRIMINALS table.

b. Add the following criminals, using the script created in the previous step. No value needs to be entered at the prompt if it should be set to the DEFAULT column value. Query the CRIMINALS table to confirm that new rows have been added.

c. Add a column named Mail_flag to the CRIMINALS table. The column should be assigned a datatype of CHAR(1).

d. Set the Mail_flag column to a value of 'Y' for all criminals.

e. Set the Mail_flag column to 'N' for all criminals who don't have a street address recorded in the database.

f. Change the phone number for criminal 1016 to 7225659032.

g. Remove criminal 1017 from the database.

2. Execute a DML statement to accomplish each of the following actions. Each statement produces a constraint error. Document the error number and message, and briefly explain the cause of the error. If your DML statement generates a syntax error rather than a constraint violation error, revise your statement to correct any syntax errors. You can review the CityJail_5.sql file to identify table constraints.

a) Add a crime record using the following data: Crime_ID = 100, Criminal_ID = 1010, Classification = M, Date_charged = July 15, 2009, Status = PD.

b) Add a crime record using the following data: Crime_ID = 130, Criminal_ID = 1016, Classification = M, Date_charged = July 15, 2009, Status = PD.

c) Add a crime record using the following data: Crime_ID = 130, Criminal_ID = 1016, Classification = P, Date_charged = July 15, 2009, Status = CL.