Project 2 Part 2

Answer each of the following questions in BLUE colored font.

Project:

a. Include name of the team members.

Ty Painter & Tonnar Castellano

b. Who is responsible for what? 1-2 sentences against each team member.

Ty was responsible for creating the megatable and loading/cleaning the data. Tonnar was responsible for creating the front-end connection.

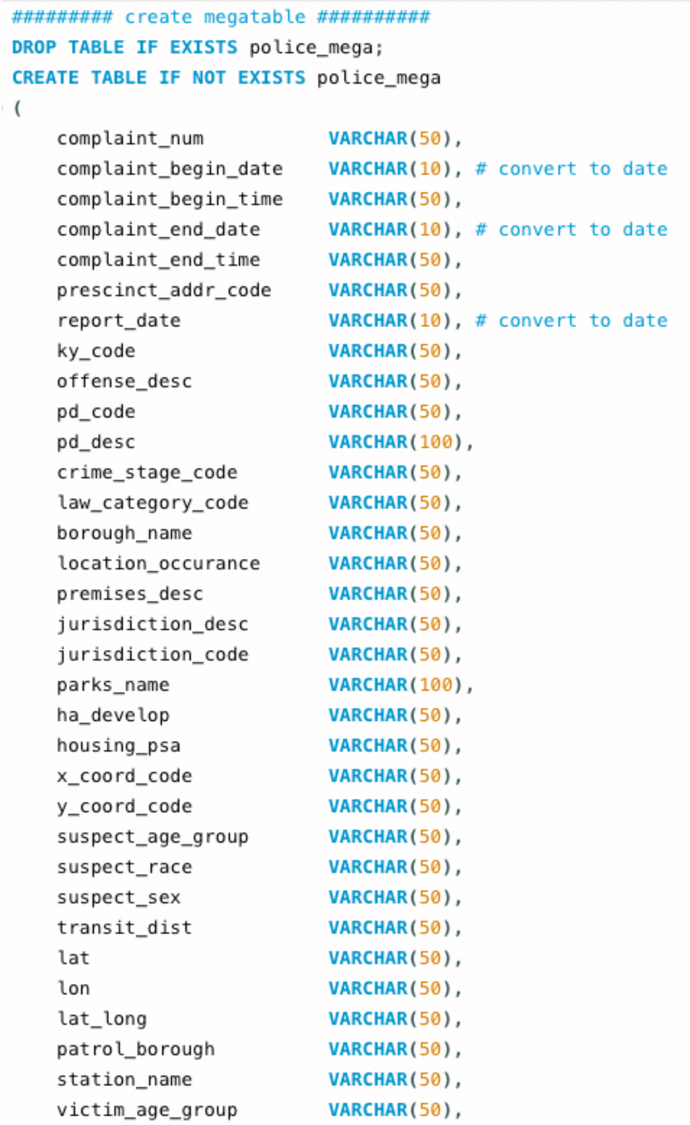
c. How are you sharing codebase? 1-2 sentences.

We are sharing code through GitHub.

Database:

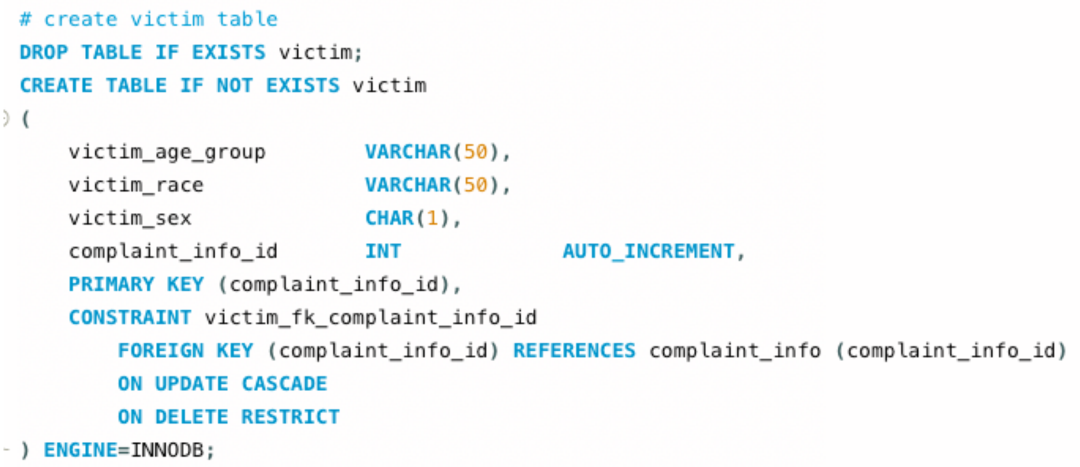
d. By this assignment submission date, you should have your raw data set imported in MySQL server in a megatable. You should also have started working on decomposition. Include screenshots of CREATE TABLE statements that you have completed/working on. This includes your megatable (required) and any other tables that you have designed. Include screenshot of any other relevant code blocks. Clearly label the screenshots.

Megatable



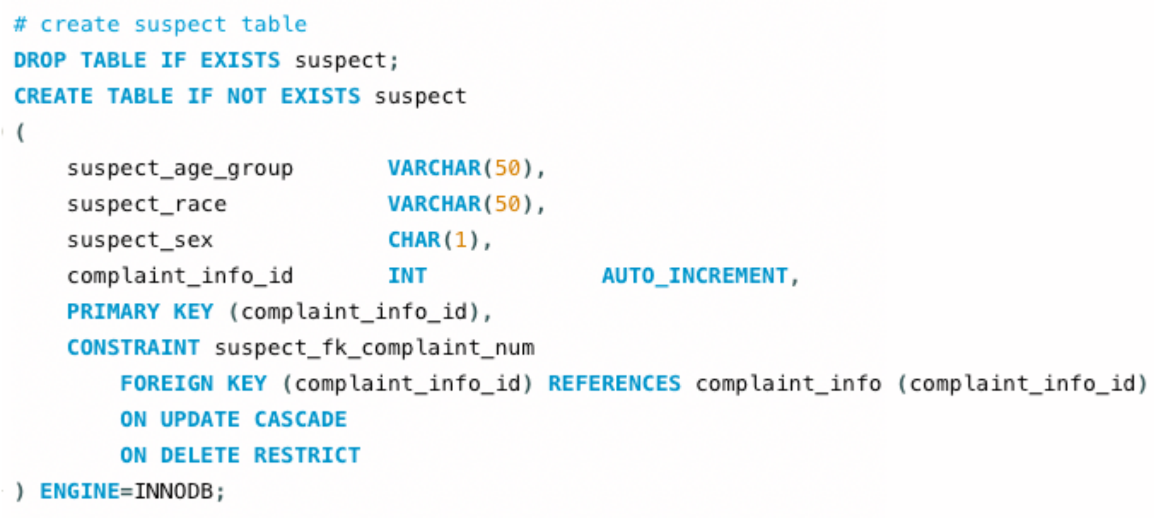
```
######### create megatable ##########
DROP TABLE IF EXISTS police_mega;
CREATE TABLE IF NOT EXISTS police_mega
(
    complaint_num           VARCHAR(50),
    complaint_begin_date    VARCHAR(10), # convert to date
    complaint_begin_time    VARCHAR(50),
    complaint_end_date      VARCHAR(10), # convert to date
    complaint_end_time      VARCHAR(50),
    prescinct_addr_code     VARCHAR(50),
    report_date             VARCHAR(10), # convert to date
    ky_code                 VARCHAR(50),
    offense_desc            VARCHAR(50),
    pd_code                 VARCHAR(50),
    pd_desc                 VARCHAR(100),
    crime_stage_code        VARCHAR(50),
    law_category_code       VARCHAR(50),
    borough_name            VARCHAR(50),
    location_occurance      VARCHAR(50),
    premises_desc           VARCHAR(50),
    jurisdiction_desc       VARCHAR(50),
    jurisdiction_code       VARCHAR(50),
    parks_name              VARCHAR(100),
    ha_develop              VARCHAR(50),
    housing_psa             VARCHAR(50),
    x_coord_code            VARCHAR(50),
    y_coord_code            VARCHAR(50),
    suspect_age_group       VARCHAR(50),
    suspect_race            VARCHAR(50),
    suspect_sex             VARCHAR(50),
    transit_dist            VARCHAR(50),
    lat                     VARCHAR(50),
    lon                     VARCHAR(50),
    lat_long                VARCHAR(50),
    patrol_borough          VARCHAR(50),
    station_name            VARCHAR(50),
    victim_age_group        VARCHAR(50),
```

Victim table



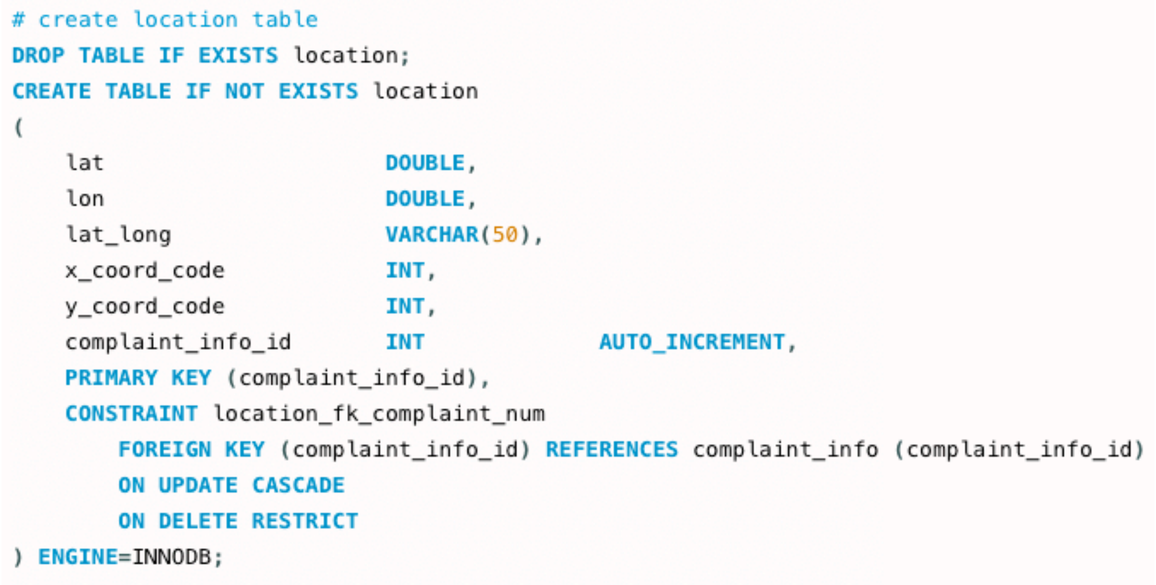
```
# create victim table
DROP TABLE IF EXISTS victim;
CREATE TABLE IF NOT EXISTS victim
(
    victim_age_group        VARCHAR(50),
    victim_race             VARCHAR(50),
    victim_sex              CHAR(1),
    complaint_info_id       INT             AUTO_INCREMENT,
    PRIMARY KEY (complaint_info_id),
    CONSTRAINT victim_fk_complaint_info_id
        FOREIGN KEY (complaint_info_id) REFERENCES complaint_info (complaint_info_id)
        ON UPDATE CASCADE
        ON DELETE RESTRICT
) ENGINE=INNODB;
```

Suspect table



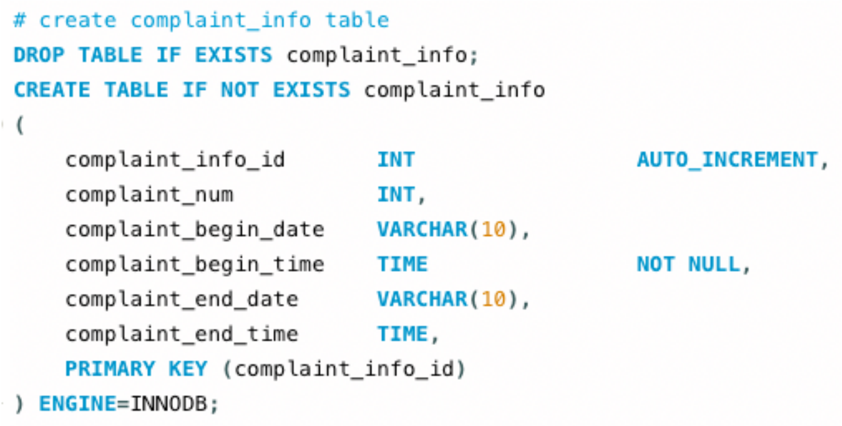
```
# create suspect table
DROP TABLE IF EXISTS suspect;
CREATE TABLE IF NOT EXISTS suspect
(
    suspect_age_group       VARCHAR(50),
    suspect_race            VARCHAR(50),
    suspect_sex             CHAR(1),
    complaint_info_id       INT             AUTO_INCREMENT,
    PRIMARY KEY (complaint_info_id),
    CONSTRAINT suspect_fk_complaint_num
        FOREIGN KEY (complaint_info_id) REFERENCES complaint_info (complaint_info_id)
        ON UPDATE CASCADE
        ON DELETE RESTRICT
) ENGINE=INNODB;
```

Location table



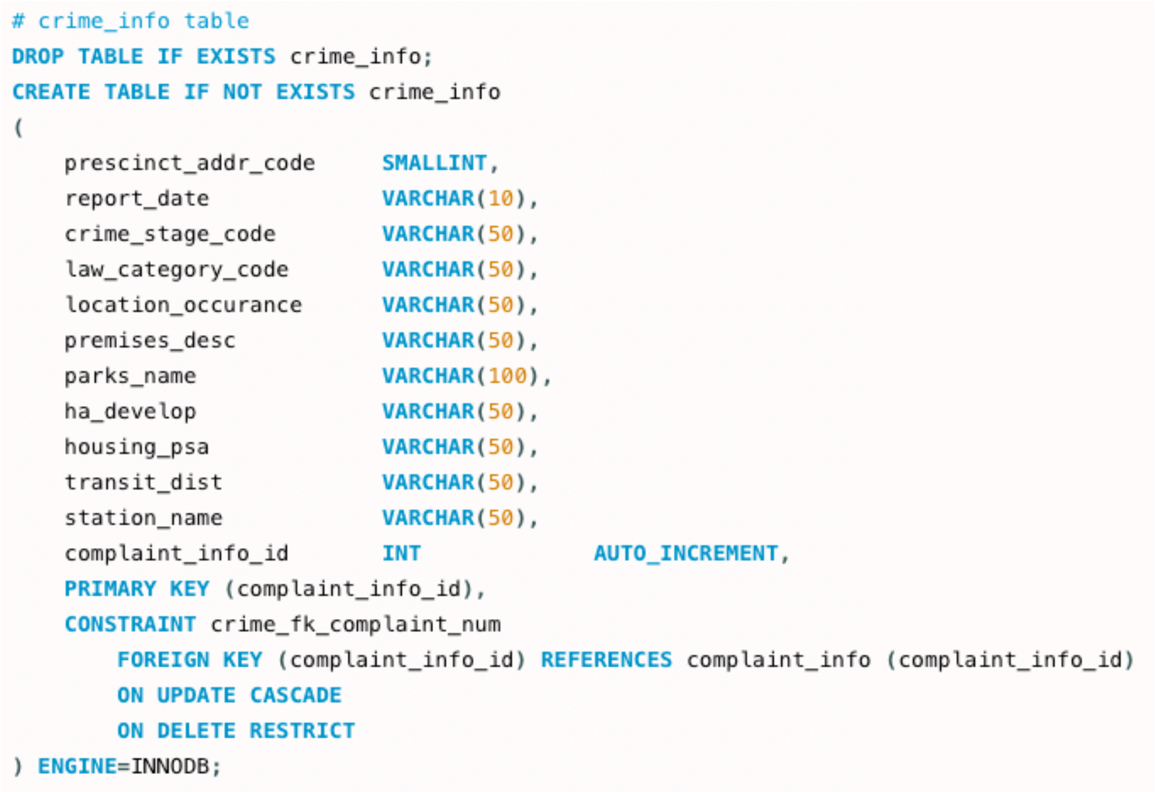
```
# create location table
DROP TABLE IF EXISTS location;
CREATE TABLE IF NOT EXISTS location
(
    lat                     DOUBLE,
    lon                     DOUBLE,
    lat_long                VARCHAR(50),
    x_coord_code            INT,
    y_coord_code            INT,
    complaint_info_id       INT             AUTO_INCREMENT,
    PRIMARY KEY (complaint_info_id),
    CONSTRAINT location_fk_complaint_num
        FOREIGN KEY (complaint_info_id) REFERENCES complaint_info (complaint_info_id)
        ON UPDATE CASCADE
        ON DELETE RESTRICT
) ENGINE=INNODB;
```

Complaint_info table



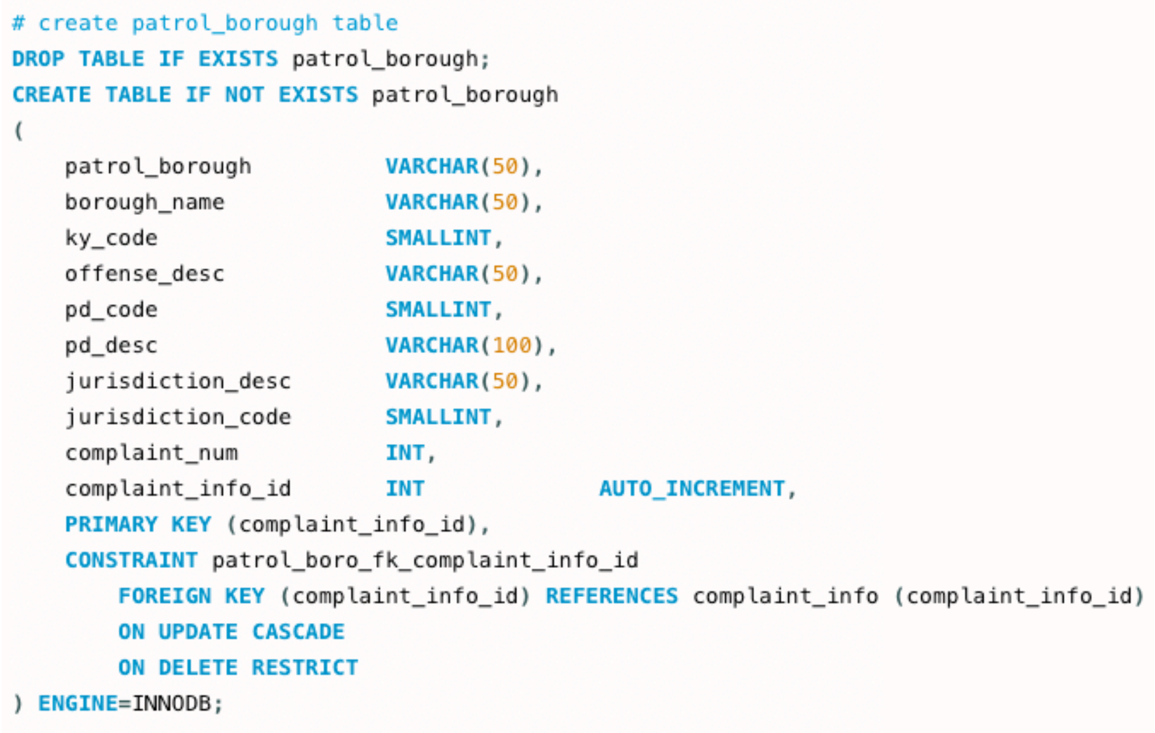
```
# create complaint_info table
DROP TABLE IF EXISTS complaint_info;
CREATE TABLE IF NOT EXISTS complaint_info
(
    complaint_info_id      INT                 AUTO_INCREMENT,
    complaint_num          INT,
    complaint_begin_date   VARCHAR(10),
    complaint_begin_time   TIME                NOT NULL,
    complaint_end_date     VARCHAR(10),
    complaint_end_time     TIME,
    PRIMARY KEY (complaint_info_id)
) ENGINE=INNODB;
```

Crime_info table



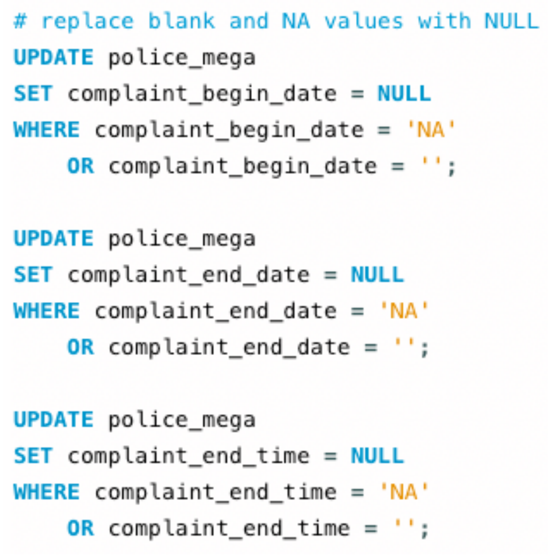
```
# crime_info table
DROP TABLE IF EXISTS crime_info;
CREATE TABLE IF NOT EXISTS crime_info
(
    prescinct_addr_code     SMALLINT,
    report_date             VARCHAR(10),
    crime_stage_code        VARCHAR(50),
    law_category_code       VARCHAR(50),
    location_occurance      VARCHAR(50),
    premises_desc           VARCHAR(50),
    parks_name              VARCHAR(100),
    ha_develop              VARCHAR(50),
    housing_psa             VARCHAR(50),
    transit_dist            VARCHAR(50),
    station_name            VARCHAR(50),
    complaint_info_id       INT             AUTO_INCREMENT,
    PRIMARY KEY (complaint_info_id),
    CONSTRAINT crime_fk_complaint_num
        FOREIGN KEY (complaint_info_id) REFERENCES complaint_info (complaint_info_id)
        ON UPDATE CASCADE
        ON DELETE RESTRICT
) ENGINE=INNODB;
```

Patrol_borough table



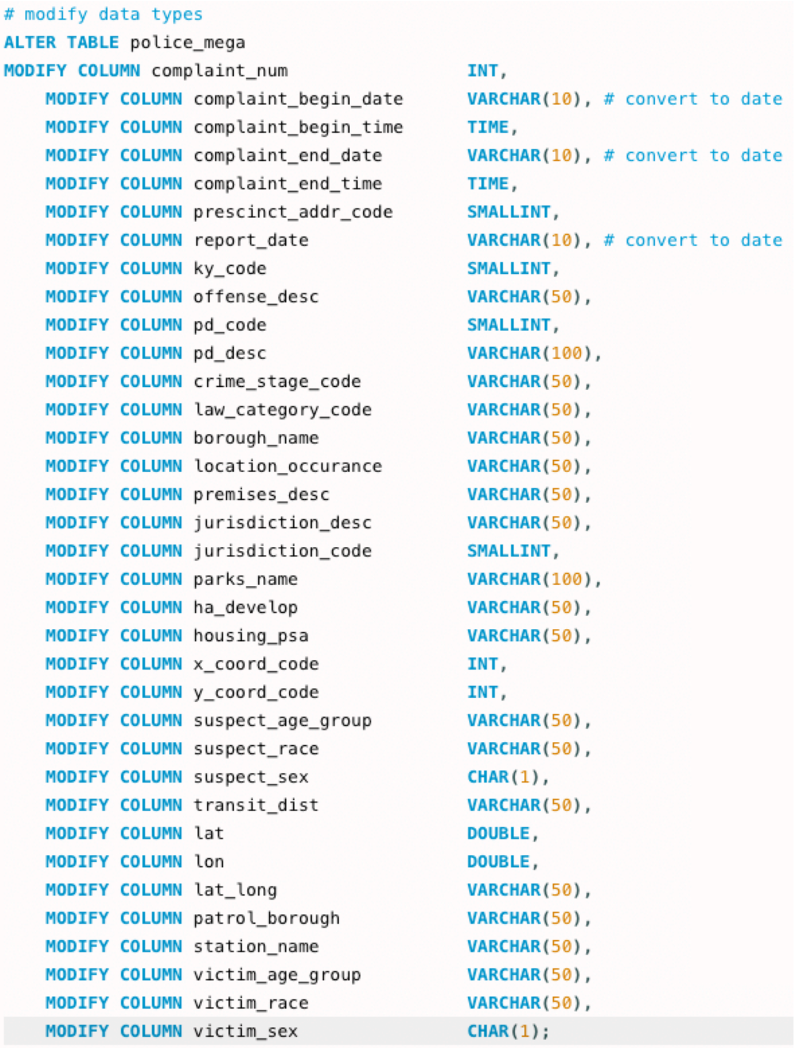
```
# create patrol_borough table
DROP TABLE IF EXISTS patrol_borough;
CREATE TABLE IF NOT EXISTS patrol_borough
(
    patrol_borough          VARCHAR(50),
    borough_name            VARCHAR(50),
    ky_code                 SMALLINT,
    offense_desc            VARCHAR(50),
    pd_code                 SMALLINT,
    pd_desc                 VARCHAR(100),
    jurisdiction_desc       VARCHAR(50),
    jurisdiction_code       SMALLINT,
    complaint_num           INT,
    complaint_info_id       INT             AUTO_INCREMENT,
    PRIMARY KEY (complaint_info_id),
    CONSTRAINT patrol_boro_fk_complaint_info_id
        FOREIGN KEY (complaint_info_id) REFERENCES complaint_info (complaint_info_id)
        ON UPDATE CASCADE
        ON DELETE RESTRICT
) ENGINE=INNODB;
```

Data cleaning – convert NA and blank values to NULL values



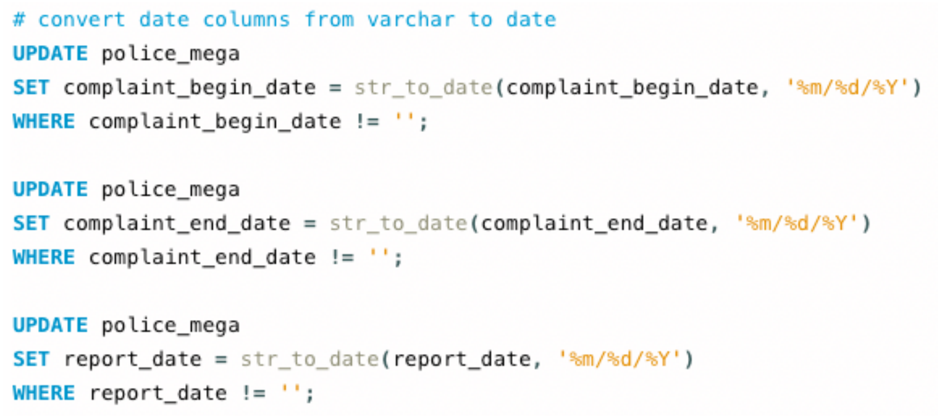
```
# replace blank and NA values with NULL
UPDATE police_mega
SET complaint_begin_date = NULL
WHERE complaint_begin_date = 'NA'
    OR complaint_begin_date = '';

UPDATE police_mega
SET complaint_end_date = NULL
WHERE complaint_end_date = 'NA'
    OR complaint_end_date = '';

UPDATE police_mega
SET complaint_end_time = NULL
WHERE complaint_end_time = 'NA'
    OR complaint_end_time = '';
```

Modify data type after updating NULL values



```
# modify data types
ALTER TABLE police_mega
MODIFY COLUMN complaint_num                 INT,
    MODIFY COLUMN complaint_begin_date      VARCHAR(10), # convert to date
    MODIFY COLUMN complaint_begin_time      TIME,
    MODIFY COLUMN complaint_end_date        VARCHAR(10), # convert to date
    MODIFY COLUMN complaint_end_time        TIME,
    MODIFY COLUMN prescinct_addr_code       SMALLINT,
    MODIFY COLUMN report_date               VARCHAR(10), # convert to date
    MODIFY COLUMN ky_code                   SMALLINT,
    MODIFY COLUMN offense_desc              VARCHAR(50),
    MODIFY COLUMN pd_code                   SMALLINT,
    MODIFY COLUMN pd_desc                   VARCHAR(100),
    MODIFY COLUMN crime_stage_code          VARCHAR(50),
    MODIFY COLUMN law_category_code         VARCHAR(50),
    MODIFY COLUMN borough_name              VARCHAR(50),
    MODIFY COLUMN location_occurance        VARCHAR(50),
    MODIFY COLUMN premises_desc             VARCHAR(50),
    MODIFY COLUMN jurisdiction_desc         VARCHAR(50),
    MODIFY COLUMN jurisdiction_code         SMALLINT,
    MODIFY COLUMN parks_name                VARCHAR(100),
    MODIFY COLUMN ha_develop                VARCHAR(50),
    MODIFY COLUMN housing_psa               VARCHAR(50),
    MODIFY COLUMN x_coord_code              INT,
    MODIFY COLUMN y_coord_code              INT,
    MODIFY COLUMN suspect_age_group         VARCHAR(50),
    MODIFY COLUMN suspect_race              VARCHAR(50),
    MODIFY COLUMN suspect_sex               CHAR(1),
    MODIFY COLUMN transit_dist              VARCHAR(50),
    MODIFY COLUMN lat                       DOUBLE,
    MODIFY COLUMN lon                       DOUBLE,
    MODIFY COLUMN lat_long                  VARCHAR(50),
    MODIFY COLUMN patrol_borough            VARCHAR(50),
    MODIFY COLUMN station_name              VARCHAR(50),
    MODIFY COLUMN victim_age_group          VARCHAR(50),
    MODIFY COLUMN victim_race               VARCHAR(50),
    MODIFY COLUMN victim_sex                CHAR(1);
```

Convert to date column values



```
# convert date columns from varchar to date
UPDATE police_mega
SET complaint_begin_date = str_to_date(complaint_begin_date, '%m/%d/%Y')
WHERE complaint_begin_date != '';

UPDATE police_mega
SET complaint_end_date = str_to_date(complaint_end_date, '%m/%d/%Y')
WHERE complaint_end_date != '';

UPDATE police_mega
SET report_date = str_to_date(report_date, '%m/%d/%Y')
WHERE report_date != '';
```

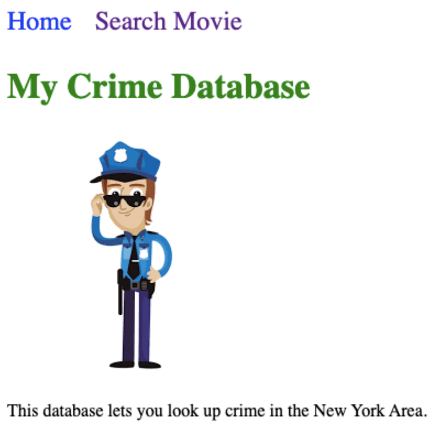
e. In terms of percentage how much you think you have completed on database side of the project? Describe the completed work in 2-3 sentences. Describe roadblocks, if any.

We are about 20% completed. We loaded and cleaned the data. Cleaning the data was a roadblock because we had to clean each column separately and the queries took time to run with over 2GB of data.

Front end:

f. By this assignment submission date, you should have decided on the front-end application programming language and have a successful connection established between the front end and the project database. Attach a screenshot of the browser showing a successful connection displaying some data from any table of your project (can be megatable). Clearly label the screenshots.

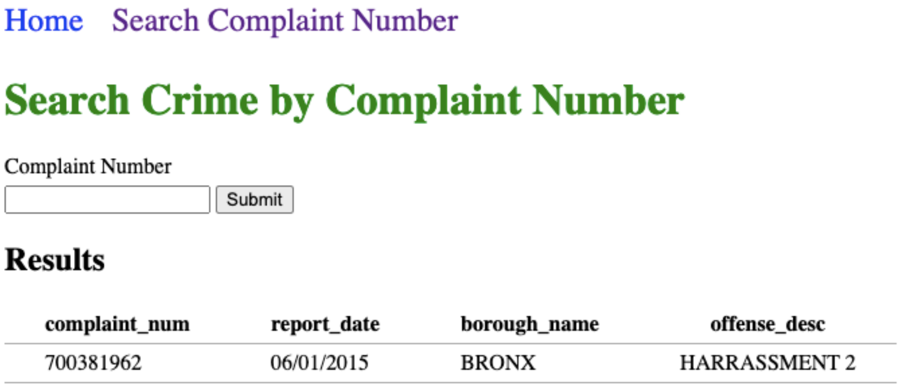
Home screen



My Crime Database

This database lets you look up crime in the New York Area.

Search complaint number screen



Search Crime by Complaint Number

Complaint Number

Results

complaint_num	report_date	borough_name	offense_desc
700381962	06/01/2015	BRONX	HARRASSMENT 2

g. Which front end application programming language are you working with? Has anyone from team has prior knowledge of working with front end? Has anyone from team has prior knowledge of working with the chosen front end application programming language. 2-3 sentences.

We are working with PHP. No, nobody on our team has any prior front-end experience. No, nobody has any knowledge of working with PHP. However, because this was given to us in class it seemed like the best option to build off of in terms of a framework.

h. What is the status of front-end application? In terms of percentage how much you think you have completed on front-end side of the project?

The front-end application is successfully up and running. It can connect to the database and query it in a basic fashion. We think we have close to 50% done. However, it is hard to know given that we have very little knowledge in front end application development.

Next deliverable

- What are your next steps? In a week time what do you plan to complete? Define clear goals.

  Our next steps will be to finish the more complex queries and to fix the coloring and formatting of the webpage. We plan to have the webpage in a better format and to have begun getting the more complex queries in order.

Submission:

Complete this document and save it as pdf. You must submit a PDF file named **p2-part2-lastname1-lastname2.pdf** (For example if I submit this document with John Smith, I would name it p2-part2-singh-smith.pdf). Submit your files on Brightspace.

You must include your name and your partner name in the Brightspace submission text box.

Each member of the team must make the submission of same file.

Grading:

This Assignment will be graded on the following criteria:

1. Completeness of document.
2. Completeness of required components at this stage of project.
3. Clear evidence of work completed.

NO grading will be done on file/s sent through email or not uploaded to Brightspace.