

```
CREATE OR REPLACE TABLE baileywang-data225-spring2021.data225_project.Accident(  
  Accident_ID INT64 NOT NULL, #PK  
  Vehicle_ID INT64 NOT NULL, #FK  
  Individual_ID INT64 NOT NULL, #FK  
  Condition_ID INT64 NOT NULL, #FK  
  Location_ID INT64 NOT NULL, #FK  
  Accident_Date DATE,  
  Accident_Hidden_ID STRING NOT NULL  
);
```

```
CREATE OR REPLACE TABLE baileywang-data225-spring2021.data225_project.Vehicle(  
  Vehicle_ID INT64 NOT NULL, #PK  
  Vehicle_Brand STRING,  
  Vehicle_Registration STRING,  
  Vehicle_License_Plate STRING,  
  Vehicle_License_Plate_State STRING,  
  Vehicle_Maneuver STRING,  
  Vehicle_Damage_Location STRING,  
  Vehicle_Damage_Severity STRING,  
  Vehicle_Hidden_ID STRING NOT NULL  
  
);
```

```
CREATE OR REPLACE TABLE baileywang-data225-spring2021.data225_project.Individual(  
  Individual_ID INT64 NOT NULL, #PK  
  Individual_Type STRING,  
  Individual_FirstName STRING,  
  Individual_LastName STRING,  
  Driver_License STRING,  
  Individual_Age INT64,  
  Individual_Gender STRING,  
  Individual_Injury_Severity STRING,  
  Individual_Injury_Location STRING,  
  Individual_Condition STRING,  
  Individual_Hidden_ID STRING NOT NULL  
  
);
```

```
CREATE OR REPLACE TABLE baileywang-data225-spring2021.data225_project.Condition(  
  Condition_ID INT64 NOT NULL, #PK  
  Condition_Type STRING,  
  Condition_Severity STRING,  
  Condition_Location STRING,  
  Condition_Hidden_ID STRING NOT NULL  
);
```

```
Condition_ID INT64 NOT NULL, #PK
Lighting_Conditions STRING,
Road_Surface_Conditions STRING,
Weather_Conditions STRING
);
```

```
CREATE OR REPLACE TABLE baileywang-data225-spring2021.data225_project.Location(
  Location_ID INT64 NOT NULL, #PK
  County_Name STRING,
  State STRING
);
```

```
CREATE OR REPLACE TABLE data225_project.Occurrence_vehicle(
  Accident_ID INT64,
  Vehicle_ID INT64,
  Occurrence_Description STRING
)
```

```
CREATE OR REPLACE TABLE data225_project.Occurrence_individual(
  Accident_ID INT64,
  Individual_ID INT64,
  Occurrence_Description STRING
)
```

```
CREATE OR REPLACE PROCEDURE data225_project.consumer_aid(
  IN P_REPORT INT64
)
```

```
BEGIN
  SELECT Accident_ID, Accident_Date,
  Lighting_Conditions, Road_Surface_Conditions, Weather_Conditions,
  Individual_Type, Individual_Age, Individual_Gender, Individual_Injury_Location,
  Individual_Injury_Severity, Individual_Condition,
  County_Name, State,
```

```

    Vehicle_Brand, Vehicle_Maneuver, Vehicle_Damage_Location, Vehicle_Damage_Severity
FROM baileywang-data225-spring2021.data225_project.company_view
WHERE P_REPORT = company_view.Accident_ID;
END;

#Procedure to produce columns that are useful for analytics
CREATE OR REPLACE PROCEDURE data225_project.analytics()

BEGIN
    SELECT Accident_ID, Vehicle_ID, Individual_ID,
        Individual_Type, Individual_Age, Individual_Gender, Individual_Injury_Location,
Individual_Injury_Severity, Individual_Condition,
        State,
        Vehicle_Brand, Vehicle_Maneuver, Vehicle_Damage_Location, Vehicle_Damage_Severity
    FROM baileywang-data225-spring2021.data225_project.company_view;
END;

SELECT RANK() OVER(ORDER BY County_Name) AS Location_ID, County_Name, State
FROM(SELECT DISTINCT County_Name FROM
`baileywang-data225-spring2021.data225_project.case_info`)

SELECT RANK() OVER(ORDER BY Lighting_Conditions, Road_Surface_Conditions,
Weather_Conditions) AS Condition_ID, Lighting_Conditions, Road_Surface_Conditions,
Weather_Conditions
FROM(SELECT DISTINCT Lighting_Conditions, Road_Surface_Conditions, Weather_Conditions
FROM `baileywang-data225-spring2021.data225_project.case_info`)

CREATE OR REPLACE TABLE data225_project.Occurrence_vehicle AS SELECT
Accident.Accident_ID AS Accident_ID,
Accident.Vehicle_ID AS Vehicle_ID,
NULL AS Occurrence_Description
FROM data225_project.Accident

CREATE OR REPLACE TABLE data225_project.Occurrence_individual AS SELECT
Accident.Accident_ID AS Accident_ID,
Accident.Individual_ID AS Individual_ID,
NULL AS Occurrence_Description

```

```
FROM data225_project.Accident
```

```
#Inserting data into the tables
```

```
INSERT INTO data225_project.Accident VALUES(2,2,2,1,3,'2020-01-10', GENERATE_UUID());
```

```
INSERT INTO data225_project.Individual VALUES(2, 'PEDESTRIAN', 'Jane', 'Smith',  
'123123234', 22, 'F', NULL, 'FACE', NULL, GENERATE_UUID());
```

```
INSERT INTO data225_project.Vehicle VALUES(2, 'HONDA','JF2SJADC2GH462251', 'ZAS9064',  
'PA', 'Major', 'Going Straight Ahead','front bumper', GENERATE_UUID());
```

```
INSERT INTO data225_project.Accident VALUES(1,1,1,1,1,'2020-01-09', GENERATE_UUID());
```

```
INSERT INTO data225_project.Individual VALUES(1, 'PEDESTRIAN', 'John', 'Smith',  
'123123123', 19, 'M', NULL, NULL, NULL, GENERATE_UUID());
```

```
INSERT INTO data225_project.Vehicle VALUES(1, 'TOYTA','JF2SJADC2GH462251', 'XVY6903',  
'NY', 'Minor', 'Going Straight Ahead','back bumper', GENERATE_UUID());
```

```
INSERT INTO data225_project.Accident VALUES(3,3,3,2,44,'2020-01-01', GENERATE_UUID());
```

```
INSERT INTO data225_project.Individual VALUES(3, 'CYCLIST', 'Ron', 'Daniels', NULL,  
32, 'M', 'Major', 'Body', NULL, GENERATE_UUID());
```

```
INSERT INTO data225_project.Vehicle VALUES(3, 'HONDA','1FMZU77K24UA51991', 'BVU6443',  
'MD', 'Minor', 'Going Straight Ahead','Right Door', GENERATE_UUID());
```

```
INSERT INTO data225_project.Accident VALUES(4,4,4,2,43,'2020-02-01', GENERATE_UUID());
```

```
INSERT INTO data225_project.Individual VALUES(4, 'Passenger of a Motor Vehicle in  
Transport', 'Robin', 'Clark', NULL, 33, 'F', 'Major', 'Body', 'Dead',  
GENERATE_UUID());
```

```
INSERT INTO data225_project.Vehicle VALUES(4, 'HONDA','1FMZU77K24UA51991', 'BVU6443',  
'MD', 'Major', 'Going Straight Ahead','Front bumper', GENERATE_UUID());
```

```
#Insert data into Condition Table
```

```
INSERT INTO data225_project.Condition VALUES(0, "Unknown", "Unknown", "Unknown")
```

```
#Updating existing table's information
```

```
UPDATE data225_project.Individual
```

```
SET Individual_LastName = 'Cook', Individual_FirstName = 'Tom'
```

```
WHERE Individual_id = 1
```

#Removing rows from existing tables

```
DELETE FROM data225_project.Vehicle
WHERE Vehicle_Hidden_ID = '154bfa69-eace-41f8-a913-783e17c52b83'
```

#Hidden_ID is the same as the GENERATE_UUID code

```
DELETE FROM data225_project.Individual
WHERE Individual_Hidden_ID = '154bfa69-eace-41f8-a913-783e17c52b83'
```

```
DELETE FROM data225_project.Accident
WHERE Accident_Hidden_ID = '154bfa69-eace-41f8-a913-783e17c52b83'
```

```
SELECT *
FROM data225_project.company_view
```

```
SELECT *
FROM data225_project.company_view
```

```
SELECT *
FROM data225_project.consumer_view
```

```
CALL data225_project.consumer_aid(611392);
```

```
CALL data225_project.analytics();
```

```
SELECT *
FROM
    baileywang-data225-spring2021.data225_project.company_view FOR SYSTEM_TIME AS OF
TIMESTAMP_SUB(CURRENT_TIMESTAMP(), INTERVAL 2 DAY)
```

```
CREATE OR REPLACE VIEW data225_project.company_view
AS
SELECT
```

```

Accident.Accident_ID AS Accident_ID, Accident.Accident_Date,
Vehicle.Vehicle_ID, Vehicle_Brand, Vehicle_Registration, Vehicle_License_Plate,
Vehicle_License_Plate_State, Vehicle_Maneuver, Vehicle_Damage_Location,
Vehicle_Damage_Severity,
Individual.Individual_ID, Individual_FirstName, Individual_LastName, Driver_License,
Individual_Age, Individual_Gender,
Individual_Type, Individual_Injury_Location, Individual_Injury_Severity,
Individual_Condition,
Condition.Condition_ID, Lighting_Conditions, Road_Surface_Conditions,
Weather_Conditions,
Location.Location_ID, County_Name, State,
Accident_Hidden_ID, Individual_Hidden_ID, Vehicle_Hidden_ID
FROM baileywang-data225-spring2021.data225_project.Accident
JOIN baileywang-data225-spring2021.data225_project.Condition ON Condition.Condition_ID
= Accident.Condition_ID
JOIN baileywang-data225-spring2021.data225_project.Occurrence_individual ON
Occurrence_individual.Accident_ID = Accident.Accident_ID
JOIN baileywang-data225-spring2021.data225_project.Individual ON
Individual.Individual_ID = Occurrence_individual.Individual_ID
JOIN baileywang-data225-spring2021.data225_project.Location ON Location.Location_ID =
Accident.Location_ID
JOIN baileywang-data225-spring2021.data225_project.Occurrence_vehicle ON
Occurrence_vehicle.Accident_ID = Accident.Accident_ID
JOIN baileywang-data225-spring2021.data225_project.Vehicle ON Vehicle.Vehicle_ID =
Occurrence_vehicle.Vehicle_ID;

```

```

CREATE OR REPLACE VIEW data225_project.car_company_view AS
SELECT
Accident_ID, Vehicle_ID, Individual_ID, Accident_Date,
Vehicle_Brand, Vehicle_License_Plate_State, Vehicle_Maneuver, Vehicle_Damage_Location,
Vehicle_Damage_Severity,
Individual_Type, Individual_Injury_Location, Individual_Injury_Severity,
Individual_Condition
Lighting_Conditions, Road_Surface_Conditions, Weather_Conditions,
County_Name, State
FROM baileywang-data225-spring2021.data225_project.company_view

```

```
CREATE OR REPLACE VIEW data225_project.consumer_view AS
SELECT Accident_ID, Vehicle_ID, Individual_ID, Accident_Date,
Individual_Type, Individual_Age, Individual_Gender, Individual_Injury_Location,
Individual_Injury_Severity, Individual_Condition,
County_Name, State,
Lighting_Conditions, Road_Surface_Conditions, Weather_Conditions,
Vehicle_Brand, Vehicle_Maneuver, Vehicle_Damage_Location, Vehicle_Damage_Severity
FROM baileywang-data225-spring2021.data225_project.company_view;
```