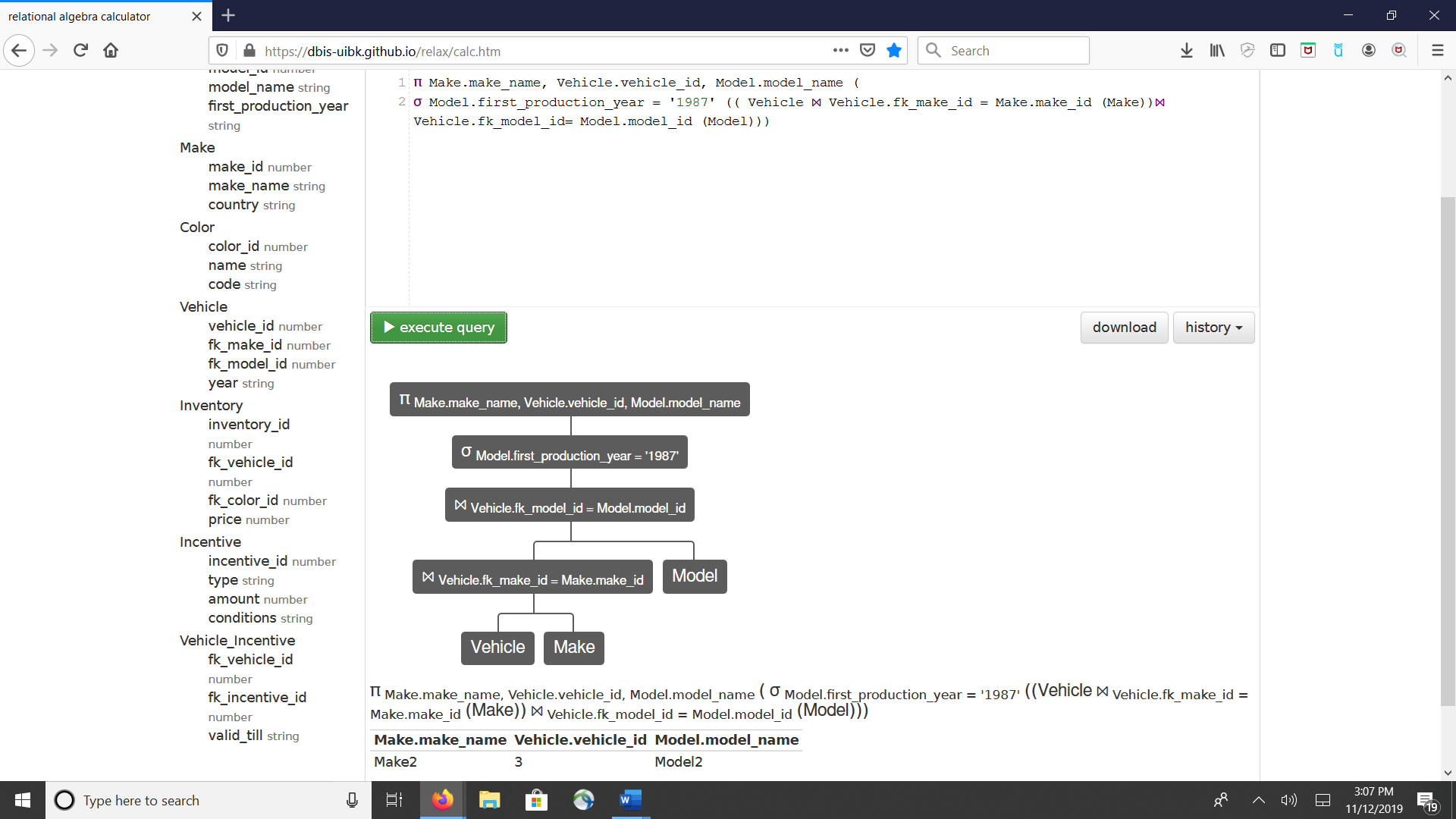
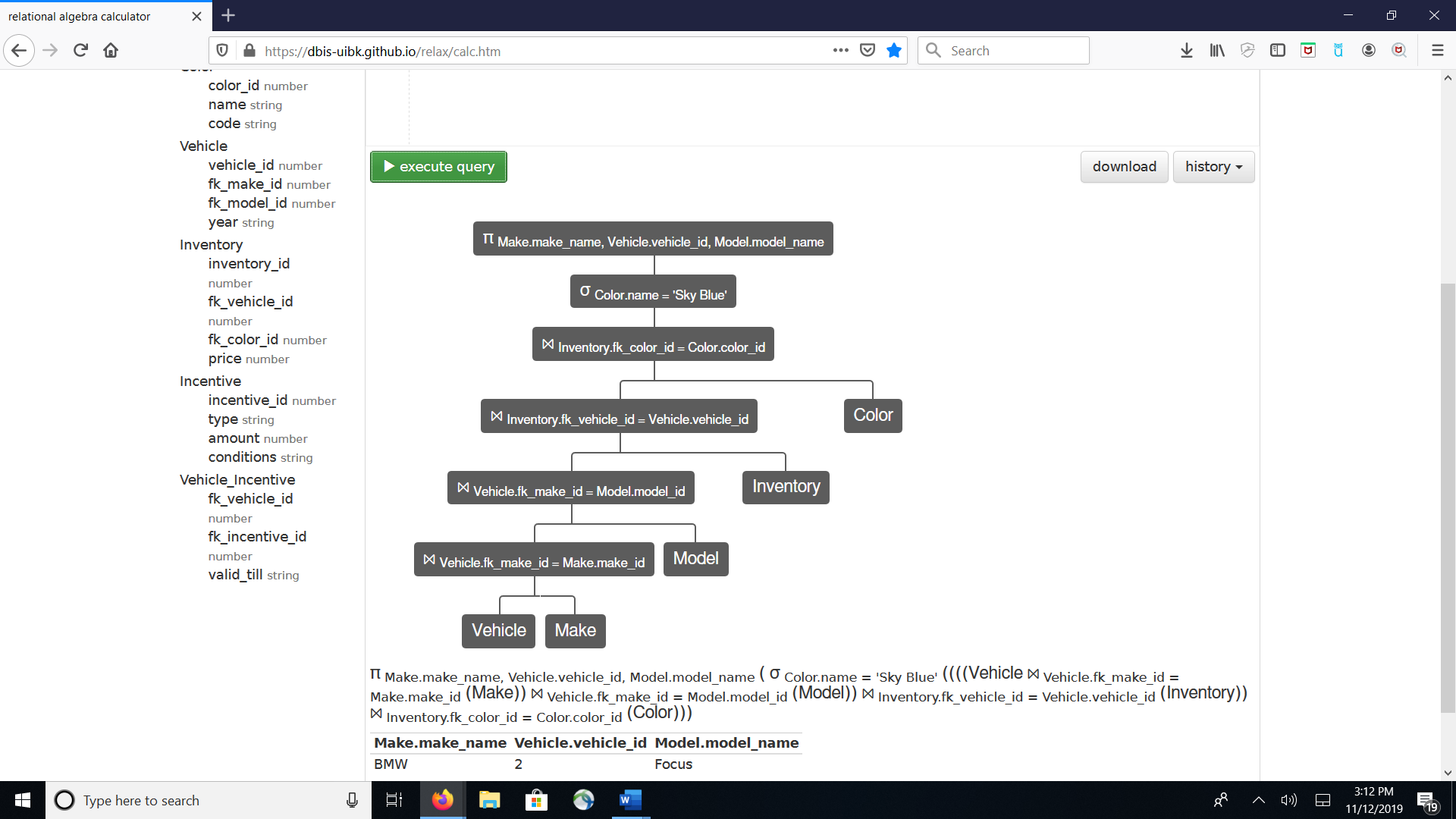
1. Select the make\_name, vehicle\_id, and model\_name of all vehicles, regardless of whether they are on the lot or not, which have a first production year of 1987.

π Make.make\_name, Vehicle.vehicle\_id, Model.model\_name(σ Model.first\_production\_year = 1987(( Vehicle ⨝ Vehicle.fk\_make\_id = Make.make\_id (Make))⨝ Vehicle.fk\_model\_id= Model.model\_id (Model)))

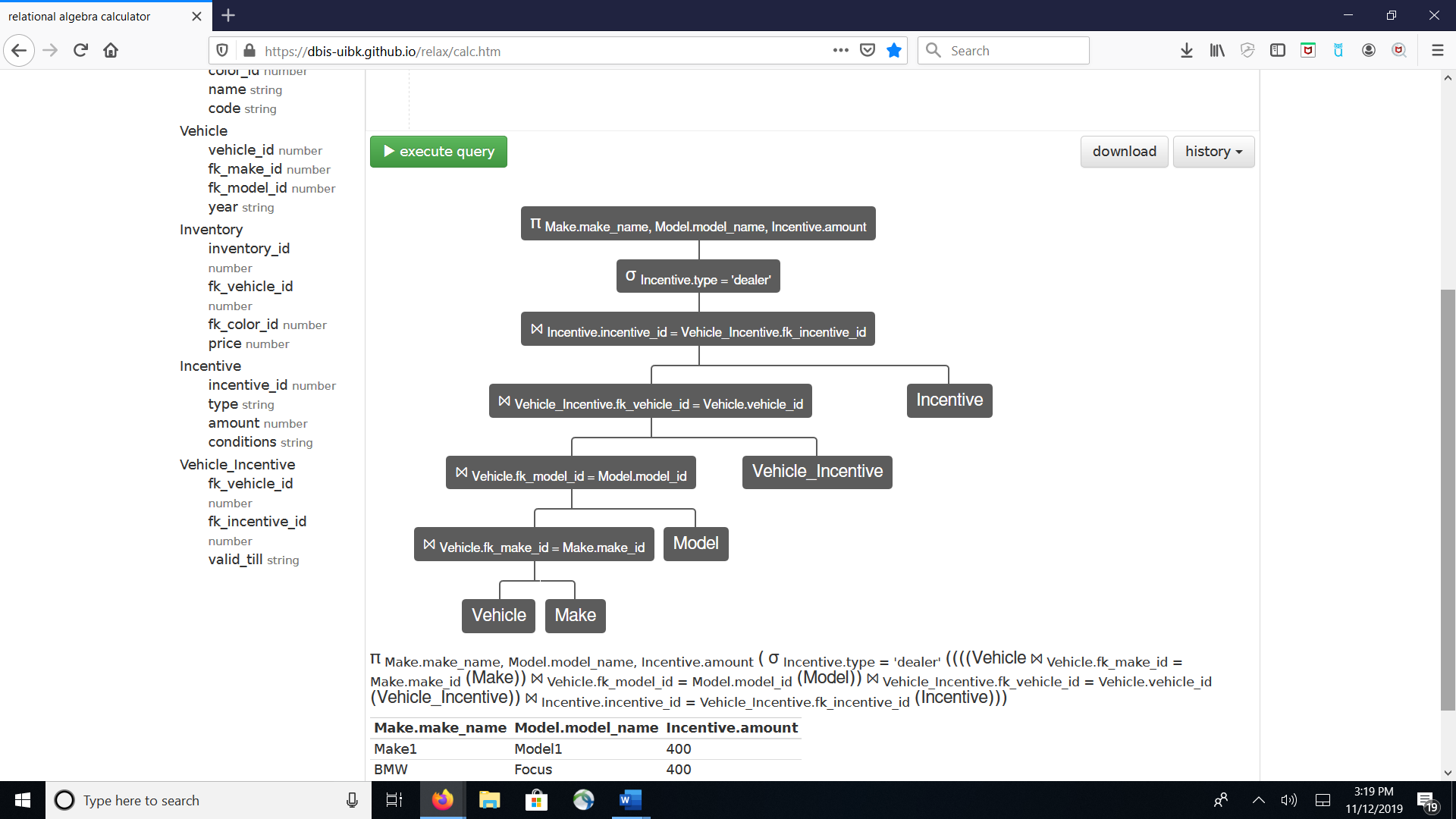


2. Select the make\_name, vehicle\_id, and model\_name of all vehicles with the color name “Sky Blue” and which are on the lot.

π Make.make\_name, Vehicle.vehicle\_id, Model.model\_name (σ Color.name="Sky Blue" ((((Vehicle ⨝ Vehicle.fk\_make\_id = Make.make\_id(Make))⨝ Vehicle.fk\_make\_id = Model.model\_id(Model))⨝ Inventory.fk\_vehicle\_id = Vehicle.vehicle\_id (Inventory))⨝ Inventory.fk\_color\_id= Color.color\_id(Color)))



3. Select the make\_name, model\_name and incentive amount for all vehicles on the lot with an incentive type “dealer”.

π Make.make\_name, Model.model\_name, Incentive.amount ( σ Incentive.type = 'dealer' (((( Vehicle ⨝ Vehicle.fk\_make\_id = Make.make\_id (Make)) ⨝ Vehicle.fk\_model\_id = Model.model\_id (Model)) ⨝ Vehicle\_Incentive.fk\_vehicle\_id = Vehicle.vehicle\_id (Vehicle\_Incentive))⨝ Incentive.incentive\_id = Vehicle\_Incentive.fk\_incentive\_id (Incentive)))

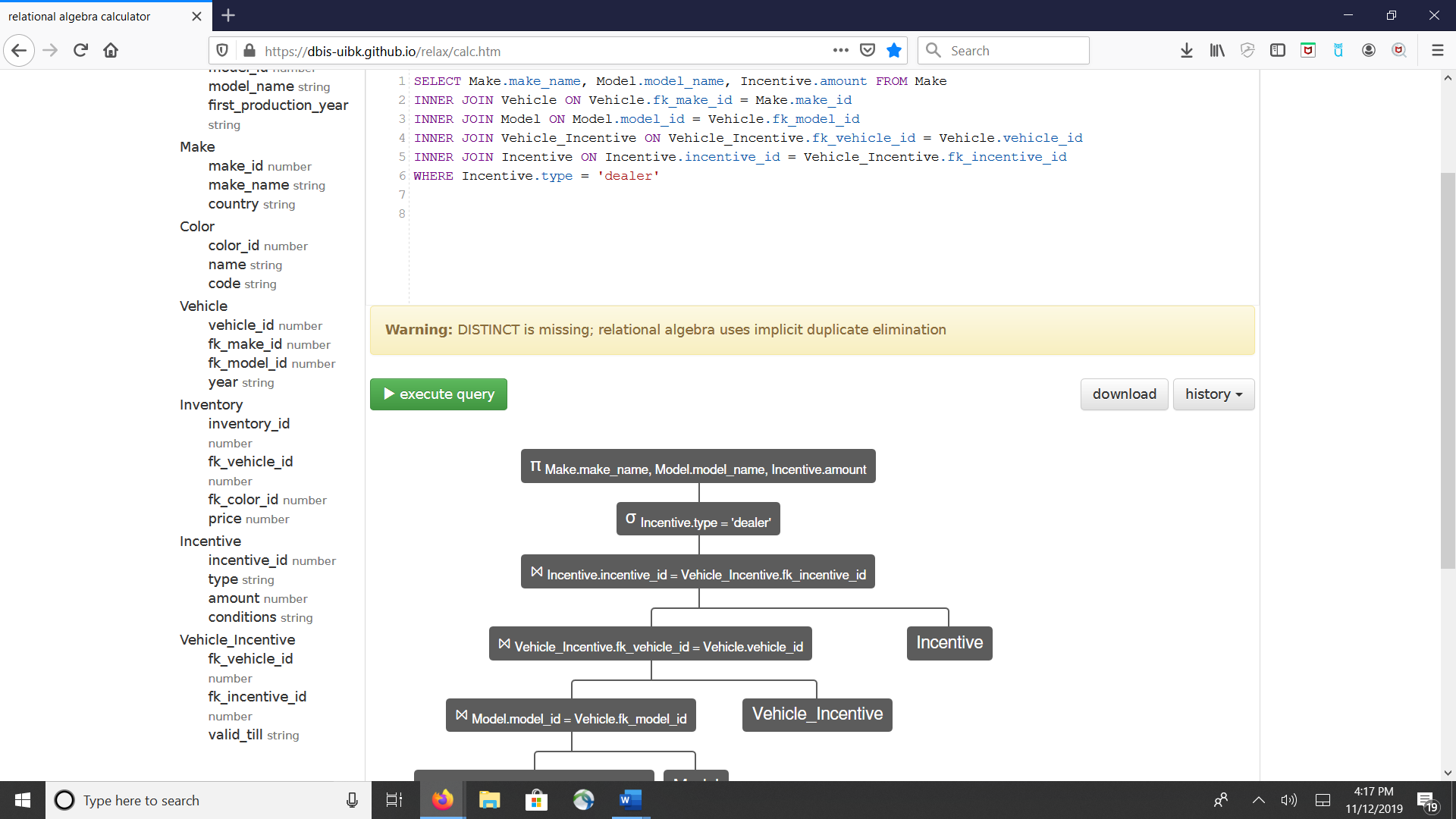
4. Convert the following query to relational algebra  
    SELECT Player.id, Team.name, City.name FROM Player  
    INNER JOIN Team ON Player.team\_id = Team.id   
    INNER JOIN City ON Team.city\_id = City.id  
    WHERE Player.score = 100;

π Player.id, Team.name, City.name (

σ Player.score = '100' ((Team ⨝ Team.id = Player.team\_id (Player))

⨝ Team.city\_id = City.id (City)))

5. For problem 3 above, convert your relational algebra query into a SQL query



second page

