

Charlotte Murphy

CS 340 – 400

Assignment 3

Due March 5, 2017

1. $\pi(\text{Make.make_name}, \text{Model.model_name})$

$\sigma(\text{Vehicle.year} = 1976)$

$((\text{Model} \bowtie (\text{Model.model_id} = \text{Vehicle.fk_model_id})\text{Vehicle}) \bowtie$
 $(\text{Vehicle.fk_make_id} = \text{Make.make_id})\text{Make})$

2. $\pi(\text{Make.make_name}, \text{Model.model_name})$

$\sigma(\text{Color.name} = \text{blue})$

$((((\text{Model} \bowtie (\text{Model.model_id} = \text{Vehicle.fk_model_id})\text{Vehicle}) \bowtie$
 $(\text{Vehicle.fk_make_id} = \text{Make.make_id})\text{Make}) \bowtie$
 $(\text{Vehicle.vehicle_id} = \text{Inventory.fk_vehicle_id})\text{Inventory}) \bowtie$
 $(\text{inventory.fk_color_id} = \text{Color.color_id})\text{Color})$

3. $\pi(\text{Make.make_name}, \text{Model.model_name}, \text{Incentive.amount})$

$(\sigma(\text{Incentive.type} = \text{dealer}))$

$((((\text{Model} \bowtie (\text{Model.model_id} = \text{Vehicle.fk_model_id})\text{Vehicle}) \bowtie$
 $(\text{Vehicle.fk_make_id} = \text{Make.make_id})\text{Make}) \bowtie$
 $(\text{Vehicle.vehicle_id} = \text{Vehicle_Incentive.fk_vehicle_id})\text{Vehicle_Incentive}) \bowtie$
 $(\text{Vehicle_incentive.fk_incentive_id} = \text{Incentive.incentive_id})\text{Incentive}))$

4. $\pi(\text{Player.id}, \text{Team.name}, \text{City.name})$

$(\sigma(\text{Player.score} = 100))$

$((\text{Player} \bowtie (\text{Player.team_id} = \text{Team.id})\text{Team}) \bowtie$
 $(\text{Team.city_id} = \text{City.id})\text{City}))$

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5. SELECT Make.make_name, Model.model_name, Incentive.amount FROM Model
    INNER JOIN Vehicle ON Model.model_id = Vehicle.fk_model_id
    INNER JOIN Make ON Vehicle.fk_make_id = Make.make_id
    INNER JOIN Vehicle_Incentive ON Vehicle.vehicle_id = Vehicle_Incentive.fk_vehicle_id
    INNER JOIN Incentive ON Vehicle_incentive.fk_incentive_id = Incentive.incentive_id
    WHERE Incentive.type = "dealer";
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