**Scenario**

You work for a construction company. The company builds houses, but uses preset model only.

Each model has a floor plan that includes a kitchen, living room, family room, a number of

bedrooms (2-4 at the moment) and bathrooms (2-5). You need to keep track of the models and

components the house will contain in the database – for example the bedroom 1 for model

Aspen will have 2 windows, 2 doors, 868 sq ft of drywall for its 14x14 ft footprint, etc.

**Data Model**

**Model: Aspen**

Bedrooms: 2

Bathrooms 3

Sqft: 2500

Bedroom1: 2 windows, 2 doors, 868 sq ft of drywall, 80 ft. electrical wire, 196 sq. ft. wood

flooring

Bedroom 2: 1 window, 1 door 720 sq ft. of drywall, 72 ft. electrical wire, 150 sq. ft. wood

flooring

Living room: 4 windows, 1 french door, 1200 sq ft drywall, 140 ft. electrical wire, 250 sq. ft

wood flooring

Dining room: 3 windows, 800 sq ft. drywall, 80 ft. electrical wire, 180 sq. ft. wood flooring

Kitchen: 2 windows, 800 sq ft. drywall, 120 ft. electrical wire, 200 sq ft. tile flooring, 80 sq ft

granite countertop, 80 sq ft tile backsplash

Bathroom1: 1 window, 1 toilet, 2 sinks, 1 tub, 1 shower, 50 ft. electrical wiring, 100 sq ft. tile

flooring

Bathroom2: 1 window, 1 toilet, 2 sinks, 1 tub, 50 ft. electrical wiring, 80 sq ft. tile flooring

Bathroom3: 1 window, 1 toilet, 1 sinks, 30 ft. electrical wiring, 50 sq ft. tile flooring

**Model: Frisco**

Bedrooms: 3

Bathrooms 3

Sqft: 3000

Bedroom1: 2 windows, 2 doors, 868 sq ft of drywall, 80 ft. electrical wire, 196 sq. ft. wood

flooring

Bedroom 2: 1 window, 1 door 720 sq ft. of drywall, 72 ft. electrical wire, 150 sq. ft. wood

flooring

Bedroom 3: 1 window, 1 door 720 sq ft. of drywall, 72 ft. electrical wire, 150 sq. ft. wood

flooring

Living room: 5 windows, 1 french door, 1500 sq ft drywall, 180 ft. electrical wire, 300 sq. ft

wood flooring

Dining room: 3 windows, 800 sq ft. drywall, 80 ft. electrical wire, 180 sq. ft. wood flooring

Kitchen: 2 windows, 800 sq ft. drywall, 120 ft. electrical wire, 200 sq ft. tile flooring, 80 sq ft

granite countertop, 80 sq ft tile backsplash

Bathroom1: 1 window, 1 toilet, 2 sinks, 1 tub, 1 shower, 50 ft. electrical wiring, 100 sq ft. tile

flooring

Bathroom2: 1 window, 1 toilet, 2 sinks, 1 tub, 50 ft. electrical wiring, 80 sq ft. tile flooring

Bathroom3: 1 window, 1 toilet, 1 sinks, 30 ft. electrical wiring, 50 sq ft. tile flooring

**Model: Vail**

Bedrooms: 4

Bathrooms 4

Sqft: 4000

Bedroom1: 2 windows, 2 doors, 868 sq ft of drywall, 80 ft. electrical wire, 196 sq. ft. wood

flooring

Bedroom2: 2 windows, 2 doors, 868 sq ft of drywall, 80 ft. electrical wire, 196 sq. ft. wood

flooring

Bedroom 3: 1 window, 1 door 720 sq ft. of drywall, 72 ft. electrical wire, 150 sq. ft. wood

flooring

Bedroom 4: 1 window, 1 door 720 sq ft. of drywall, 72 ft. electrical wire, 150 sq. ft. wood

flooring

Living room: 5 windows, 1 french door, 1500 sq ft drywall, 180 ft. electrical wire, 300 sq. ft

wood flooring

Dining room: 3 windows, 800 sq ft. drywall, 80 ft. electrical wire, 180 sq. ft. wood flooring

Kitchen: 2 windows, 800 sq ft. drywall, 120 ft. electrical wire, 200 sq ft. tile flooring, 80 sq ft

granite countertop, 80 sq ft tile backsplash

Bathroom1: 1 window, 1 toilet, 2 sinks, 1 tub, 1 shower, 50 ft. electrical wiring, 100 sq ft. tile

flooring

Bathroom2: 1 window, 1 toilet, 2 sinks, 1 tub, 1 shower, 50 ft. electrical wiring, 100 sq ft. tile

flooring

Bathroom3: 1 window, 1 toilet, 2 sinks, 1 tub, 50 ft. electrical wiring, 80 sq ft. tile flooring

Bathroom4: 1 window, 1 toilet, 1 sinks, 30 ft. electrical wiring, 50 sq ft. tile flooring

**Tasks**

1. Enter the data into the database according to the Data Structure.

Tip: use provided ‘Neo4J\_Data’ file.

2. Show the data structure for the database.

3. Show the square footage of model Frisco.

4. Find the Frisco node.

5. Find total wood flooring square footage for model Aspen.

6. Change the tile square footage for the kitchen in the Vail model to 300 sq ft.

7. Remove the tile backsplash for the kitchen in the Vail model.

8. Add a granite backsplash of 100 sq ft for the kitchen in the Vail model.

9. Delete the fourth bedroom in the Vail model.

10. Add up and show the number of bathroom sinks in the Aspen house.