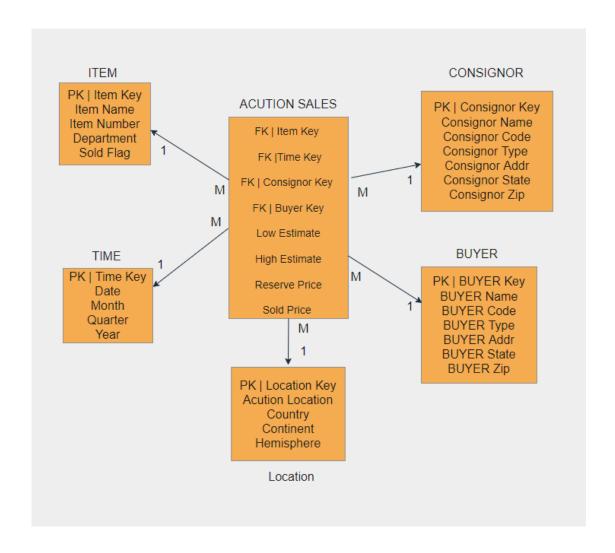
Name: Jehad Alqurashi

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### Exercise 1 [5 marks]

Regarding the star example below, answer the following questions.

- 1. Identify the facts or the metrics.
- 2. List the business dimensions as well as the primary key of each one of them.
- 3. Regarding the fact table, identify the P.K. and the F.K.s



## Identify the facts or the metrics:

- 1- Low Estimate
- 2- High Estimate

- 3- Reserve price
- 4- Sold price

# List the business dimensions as well as the primary key of each one of them:

1- Item: item key(PK)

2- TIME: Time key(PK)

3- Location: Location key(PK)

4- BUYER: BUYER key(PK)

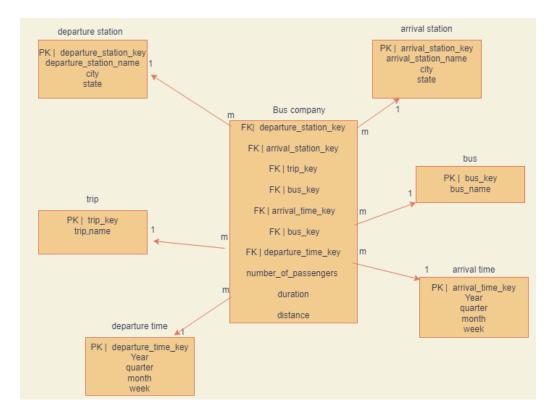
5- CONSIGNOR: Consignor(PK)

### Regarding the fact table, identify the P.K. and the F.K.s:

ACUTION\_SALES(Location\_key(FK), Item\_key(FK), Time\_key(FK), Consignor\_key(FK), Buyer\_key(FK))

### Exercise 2 [5 marks]

A data warehouse of a bus company contains information about bus segments. It consists of six dimensions, namely, departure station, arrival station, trip, bus, arrival time, and departure time. It also has three measures, namely, number of passengers, duration, and distance (number of kilometers). Draw a Multi-Dimensional schema for the bus data warehouse.



### Exercise 3 [5 marks]

Design the star schema to analyse the employee salary according to their age (by year or by decade), their study level and the geographic location of the entreprise. The study level analysis can be performed according to the higher study level reached (primary, secondary school, university level) or according to the last obtained degree (primary degree, secondary degree, bachelor, master, PhD). The geographic entreprise location analysis can be conducted by city, region, or country.

### Home Work

