Supporting activity for Week three

DBMS and Data Mining for the Motor Vehicle Maintenance Center

The tables needed in this database are:

1. Vehicles
2. Type\_of\_Vehicle (Sedan, Coupe, Hatchback, Wagon, SUV, Van, Truck …)

(FK in Vehicles table)

1. Owners (FK in Vehicles table)
2. Makes (FK in Vehicles table)
3. Models (FK in Vehicles table)
4. Trims (FK in Vehicles table)
5. States (FK in Vehicles table)
6. Mechanics
7. Auto\_Parts
8. Parts\_Used
9. Service
10. Work\_to\_be\_done

Today companies depend on data mining and data analytics, being data mining part of data analytics and this last one part of Business Intelligence. With the use of these techniques, decision makers can study past and present data, as well as to predict future behaviors of selected target group of customers based on the analysis of data. Some examples of industries very interested in the results obtained with techniques are credit cards companies, marketing, banking, retailing, and others.

Data mining has three levels for building knowledge from raw data. It starts from the bottom level with raw data, the second level is the information, and the last is the knowledge level. Data analytics in composed of explanatory analytics, and predictive analytics. Data mining has processes:

1. Preparation of data
2. Classification and analysis of data
3. Obtainment of knowledge
4. The prognosis.

Data mining can be executed guided by the end user or automated to get information from data.

References

Reading material Database systems: Design, implementation and management

Coronel, C., Morris, S., Rob, P. ( 2013 ).