**Lesson 3**

**Objectives**

* DBMS approach
  + Advantages of DBMS
  + Cost and Risk Factors
  + Disadvantages
  + Elements

**Advantages of DBMS**

* Data independency
* Easy to maintain
* Minimal redundancy
* Easy to made operations over database
* Data integration
* Improved data sharing
* Minimizing application development cost
* Data consistency
* Improved data accessibility
* Flexible queries

**Cost and Risk Factors**

There are some cost and risk factor in DBMS.

* New software installation
* Conversion cost
* New specialized personal required
* Organizational conflict
* Highs impact of failure
* Time

**Disadvantages of DBMS**

* Additional cost
  + Software and hardware
* Complexity
  + In file based system there is a file for each department but in DBMS all data about an organization is combined in single file. So it will be too complex to handle the bulk of data.
* Large size of database.
* Skilled person required.
* Cost of conversion
* Highs Impact of failure

**Elements of DBMS approach**

* Enterprise Data Model
  + Graphical model showing high-level entities and relationships for the organization
* Relational Databases
  + Database technology involving tables (relations) representing entities and primary/foreign keys representing relationships
* Use of Internet Technology
  + Networks and telecommunications, distributed databases, client-server and 3-tier architectures
* Database Applications
  + Application programs used to perform database activities (create, read, update, and delete) for database users