HOMEWORK 1

Q 1.3 List six major steps that you would take in setting up a database for a particular enterprise?

**Solution**: While designing the database we will design it from the aspect of the different database schema. We will start thinking from View Schema till the physical Schema. Six major steps for setting up a database under that process will be as below:

1. **Requirement gathering for high level design**: First the requirement analysis needs to be undertaken to ascertain the requirement for the enterprise database from the end users via extensive questioning and other form. The outcome of the phase is a specification of user requirement.
2. **Model Selection**: Once the user requirement is with us. Next step is model selection and translating the user requirements into a conceptual schema of the database. The focus at this point is on describing the data and their relationships.
3. **Applying the Constraints and business logics**: Then comes applying business logics in the form of assertions and constraints in line with the user requirements.
4. **Defining the physical level**: Once the logical implementation is done, we can go ahead and implement the physical level of the database.
5. **Connection with the front end**: Since interacting with database wont be pretty much user friendly there is a need of any web based or any other User Interface, any front end application that can connect to the database. This will also help hide the implementation from the end user.
6. Complete the set up of database. We are good to initialize the database.

Q 1.6 Keyword queries used in Web search are quite different from database queries. List key differences between the two, in terms of the way the queries are specified, and in terms of what is the result of a query.

**Solution** :

The biggest difference in Web search and database queries is that web based queries are non procedural whereas the database queries are procedural. Below are the listed differences :

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| --- | --- |
| **Web Based Queries** | **Database based queries** |
| Non Procedural Queries i.e no need to specify how it is to be done. Just specify what needs to be done. | Procedural Queries i.e needs to specify what needs to be done and how it needs to be done . |
| No need to mention table name or location name from where the data needs to be fetched. | Have to mention the location(i.e tables) for fetching |
| Output can be any form like images, songs, video | Output always in the form of rows and columns(Table) |
| No specific syntax is followed | Specific syntax is followed |
|  |  |