

Course Description

Database Management System (DBMS)

Example Applications



Facebook, Gmail, WhatsApp, Railway ticket booking, Mobile services.....

Databases reside behind a huge fraction of websites; they're a crucial component of telecommunications systems banking systems, video games, and just about any other software system or electronic device that maintains some amount of persistent information.

Ok.....Let us get started with “Database Management System (DBMS)”

Questionnaire:

What do you mean by Data ?

What do you mean by Database ?

What do you mean by Database Management System ?

Example.....

- Say our task is to store Two students USN, Name and Subjects in the Computer Memory and display it on monitor screen.

Method 1

```
#include <stdio.h>
main() {
struct s{
char USN[15]; char name[25]; char subjects[30];
}student[3];
int i;

strcpy(student[0].USN,"1BM14CS001"); strcpy(student[0].name, "Aditya");
strcpy(student[0].subjects,"LA,Java,DBMS,OS,DC");

strcpy(student[1].USN,"1BM14CS002"); strcpy(student[1].name,"Baharth");
strcpy(student[1].subjects,"DBMS,OS,DC");

for(i=0;i<2;i++){
printf("USN: %s ",student[i].USN);
printf("Name: %s ", student[i].name);
printf("Subjects: %s\n",student[i].subjects);
}
getchar();
}
```

Method 2

student.txt

```
1BM14CS001 Aditya LA,Java,DBMS,OS,DC
1BM14CS002 Baharth DBMS,OS,DC
```

```
#include <stdio.h>
main()
{
FILE *fp;
char USN[15],name[25],subjects[30];

fp=fopen("student.txt","r");
while(fscanf(fp,"%s %s %s",USN,name,subjects)!=EOF)
{
printf("USN: %s Name: %s Subjects: %s",USN,name,subjects);
}
fclose(fp);
getchar();
}
```

Method 3

Student database table

USN	Name	Subjects
1BM14CS001	Aditya	LA, Java, DBMS,OS,DC
1BM14CS002	Bharath	DBMS, OS, DC

create table student(USN varchar(15), name varchar(25), subjects varchar(30);

insert into student values("1BM14CS001","Aditya","LA,Java,DBMS,OS,DC");

insert into student values("1BM14CS002","Bharath","DBMS,OS,DC");

select USN, name, subjects from student;

Basic Definitions

□ **Data:**

- Known facts that can be recorded and have an implicit meaning.

□ **Database:**

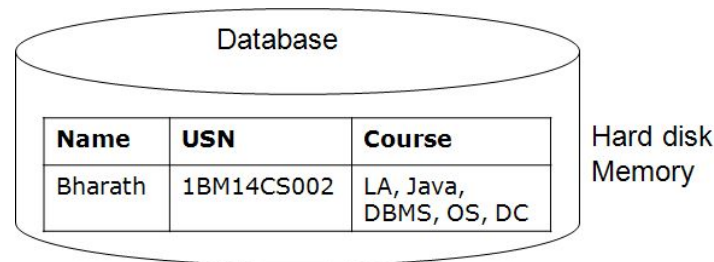
- A collection of related data.

□ **Database Management System (DBMS):**

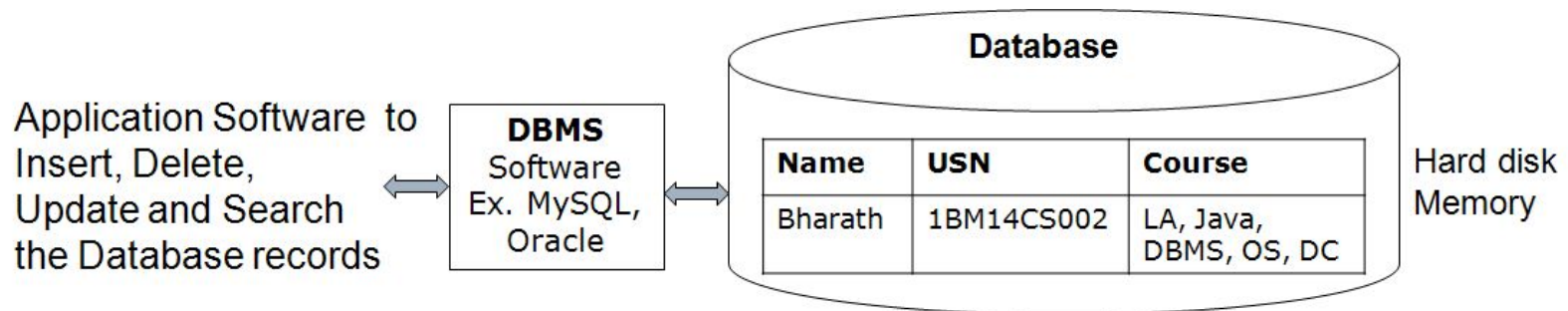
- A software package/ system to facilitate the creation and maintenance of a computerized database.
- DBMS is a general-purpose software system that facilitates the process of defining, constructing, manipulating and sharing databases among various users and applications.

Data, Database, Database Management System

- A **Database** is any collection of interrelated **data** (or information), it can be words you write on a piece of paper or a digital file. It is made up of tables and contains rows and columns. It is like Excel spreadsheet.



- A **Database Management System (DBMS)** is a piece of software that manages databases and lets you create, edit and delete databases, their tables and their data. Examples of a DBMS are MySQL, Oracle



Why should you study DBMS ?

Say you were asked to develop an Software Application to CSE department of BMS College to **automate** the following

“Identification of list of eligible students for registration to next academic semester. Student is eligible to enrollment to next academic semester only if he/she does not have more than four backlog subjects”

Database Management System (DBMS)

- Database Management System (DBMS) provides.....

.....efficient, reliable, convenient, and safe multi-user storage of and access to massive amounts of persistent data

Simplified database system environment

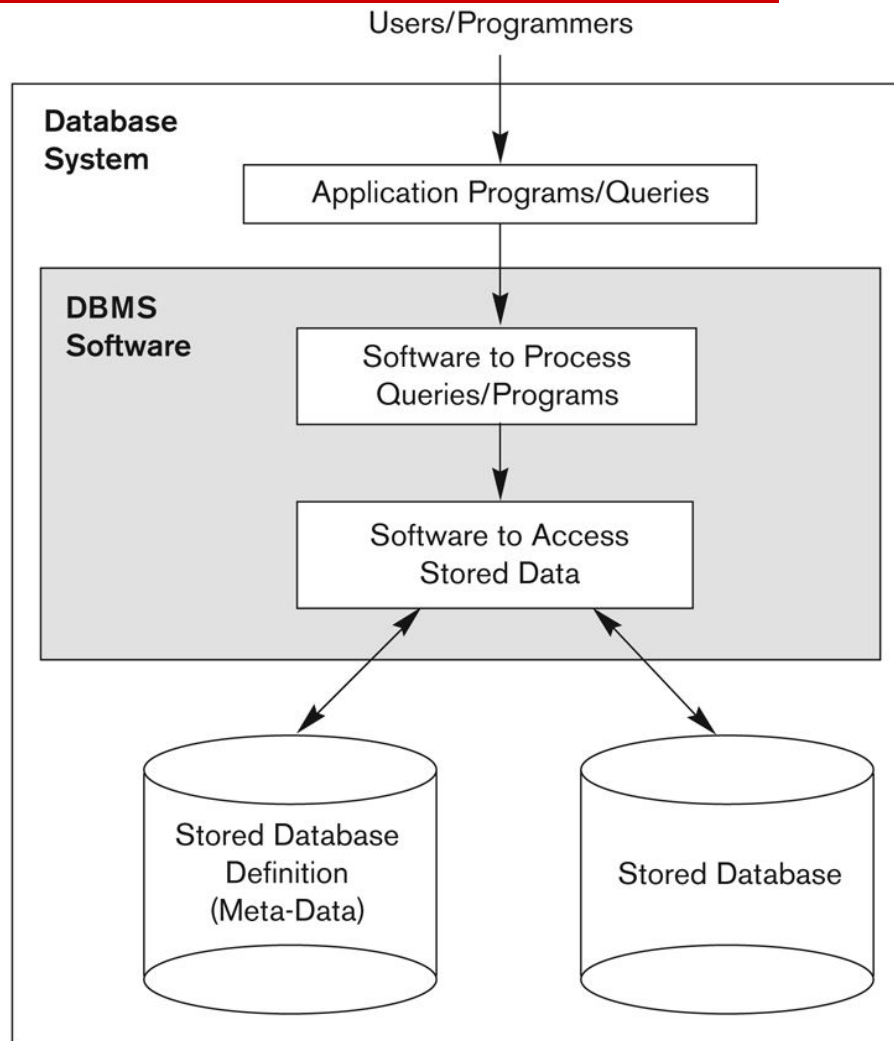


Figure 1.1
A simplified database system environment.

Student Introduction Card

Fill your details in the Handouts given to you

Activity - Quiz Time

When is your First Internals Scheduled ?

What should be carried under self study component of DBMS ?

Thanks for Listening

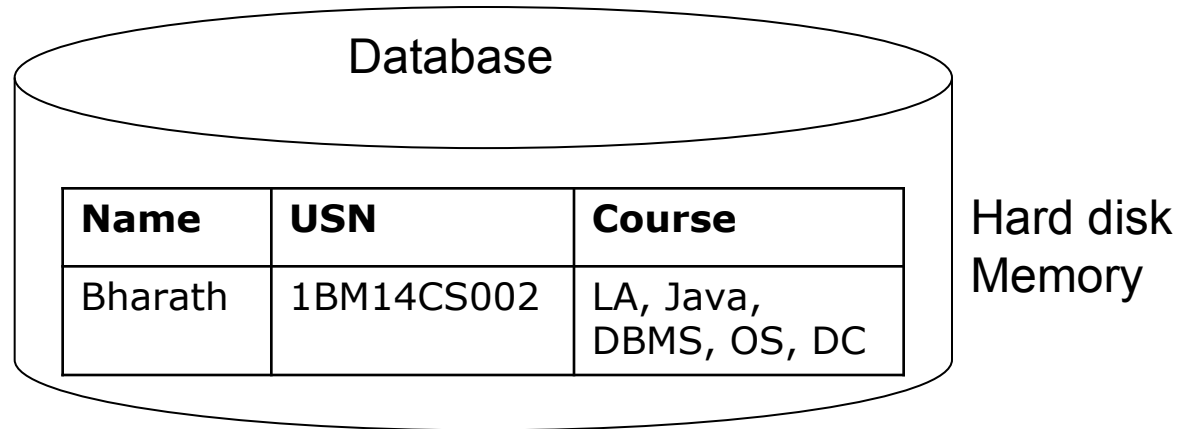
Look for updates at Course Webpage:

<https://sites.google.com/site/drvmadevi/teaching/dbms-jan-2016>

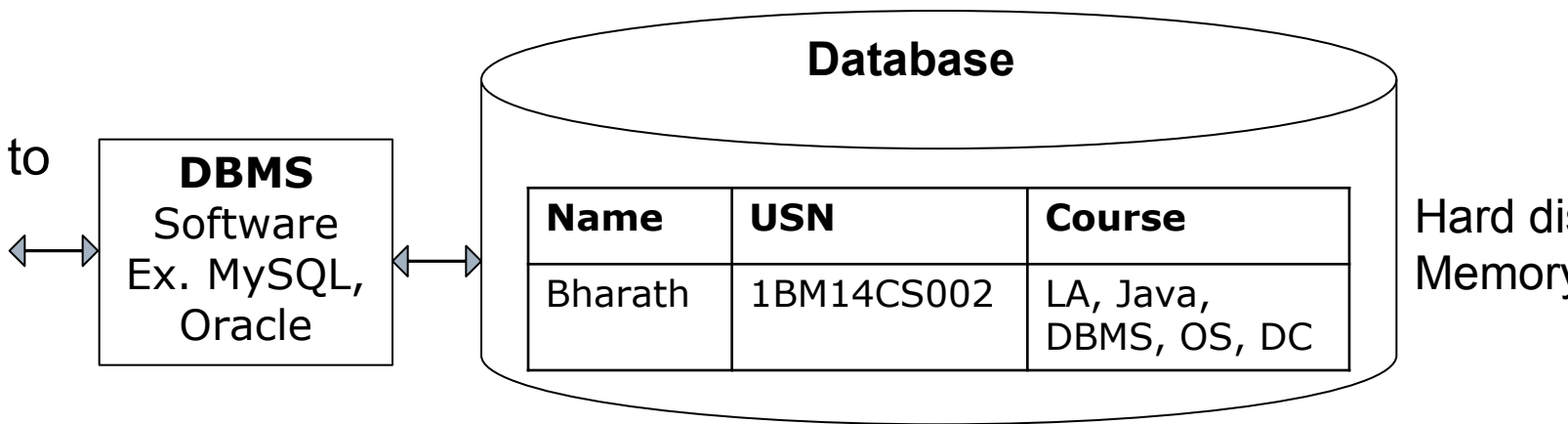
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No need to remember the webpage URL
Do Google Search - ☺ - “**Umadevi BMS**”, you will find
teaching webpage

Data, Database, Database Management System



ion Software to
Delete,
and Search
base records



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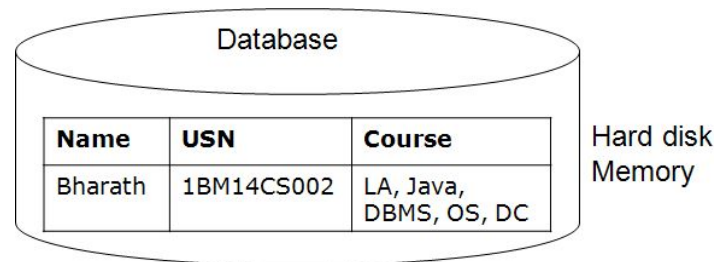
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