

Welcome to MySQL Workbench

MySQL Workbench is the official graphical user interface (GUI) tool for MySQL. It allows you to design, create and browse your database schemas, work with database objects and insert data as well as design and run SQL queries to work with stored data. You can also migrate schemas and data from other database vendors to your MySQL database.

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MySQL Connections

 Filter connections

Local instance MySQL80

root

localhost:3306

Scanned with CamScanner



Query 1

Limit to 1000 rows

```
1 • create database External;
2 • use External;
3 • create table Branch(
4   br_name varchar(20) primary key,
5   br_city varchar(15) not null,
6   assets float not null
7 );
8 • insert into Branch values('BOI Kolhapur', 'Kolhapur', 20000);
9 • insert into Branch values('BOI Rajerampuri', 'Kolhapur', 17000);
10 • insert into Branch values('BOI Warananagar', 'Warananagar', 24999);
11
12 • create table Customer(
13   cust_id int primary key,
14   cust_nm varchar(50) not null,
```

Output

Action Output

#	Time	Action	Message
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Duration / Fetch

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Q2. What four main types of actions involve databases? Briefly discuss each.

→ The DBMS is a software system that explains the four types of actions, which are defining, constructing, manipulating and sharing databases among various users and applications.

(1) Defining a database:

It includes the data types, structures and constraints of the data have to store in the database. The database descriptive information is also stored by the dbms in form of a database catalog or dictionary.

(2) Constructing the database:

It is the process of data storing on some storage medium that is maintained by DBMS.

(3) Manipulating a database: It includes functions such as retrieve the database by using queries, updating the database to reflect changes in the system and generate reports from data.

(4) Sharing a database:

It allow multiple users and programs to access the database simultaneously

Q3 Discuss the main characteristics of the database approach and how it differs from traditional file system.

→ In a traditional file processing system, each user defines & implements its own modifications to the file needed for a selected software application as a part of programming the appliance.

In the database approach, one repository maintains data which is defined once then accessed by various users in database.

• Approach 1.

Self destructing nature of a database system - Database Management software can access various databases by extracting the database definitions or schemas from the catalog and using these definitions.

• approach 2 -

Isolation between programs and data and data abstraction.

- In a file system traditional file, is embed within the application programs so changes were difficult.

- against this DBMS access programs don't require such change in most cases no independence is achieved between them.

- Approach 3 -

Support for multiple views of the data.
- A database sometimes has many users each of whom may require a special perspective or view of database.

- Approach 4 -

sharing of knowledge & multiuser transaction processing -

A multiuser DBMS as its name implies, must allow multiple users to access the database at an equivalent time or concurrently.

Q4 Difference between controlled and uncontrolled redundancy.

- Redundancy is when the same fact is stored multiple times in several places in a database.

- eg - say the name of the student with roll no = 8 is vish is stored multiple times.

- Redundancy is controlled when the dbms ensures that multiple copies of same data are consistent.

- If the DBMS has no control over this, we have uncontrolled redundancy.

Q5 Specify all the records relationships among the records of the database shown in fig.

→ (a) each ~~section~~ SECTION record is related to COURSE record.

(b) each GRADE-REPORT record is related to one STUDENT record and one SECTION record.

(c) each PREREQUISITE record relates two COURSE records: one in the role of course and the other in the role of prerequisite to that course.

Q6 Give examples of systems in which it may make sense to use traditional file processing instead of a database approach.

→ 1. Small internal utility to locate file.

2. Small single user application that does not require security. (phonebook, personal address)

(3) Real time navigation system
(with heavy computation & real
time data.