



Practical - 1 (1 Lab)

1. What is DBMS? Explain advantages of DBMS over FPS.
2. List 15 applications of Database. Explain how Database can be helpful in managing any 3 applications.
3. Create the Database for the following:
 - A. Student Details using Excel.
 - B. Employees Details using MS Access.
 - C. Facebook using Excel.

1. A DataBase Management System (DBMS) is software that allow user to store, manage, retrieve, and control data efficiently in a structured way. It act as an interface between user/applications and the database, ensuring data is organised, secure and consistent.
examples:-

- mysql
- Oracle database
- microsoft SQL server

Advantages of DBMS Over FPS

- ① Reduce data Redundancy :- In DBMS there is control on duplication of data while in FPS same data may be stored in multiple files.
- ② Better Data Consistency :- In DBMS, update in data reflects everywhere while in FPS changes in one file may not update others.
- ③ Improved Data Security :- DBMS provides passwords, userroles, and access control while FPS have limited security.
- ④ Data Integrity :- DBMS enforces rules (constraints) but FPS have no proper integrity control.

① Backups and Recovery :- DBMS can backup automatic but in FPS manual backup required.

② Ans :- These are the 15 application of DBMS.

- (1) ATM management System
- (2) Stock market/Trading System
- (3) Online food delivery System
- (4) Ride-sharing system.
- (5) movie Ticket Booking System.
- (6) Online learning platforms
- (7) Customer Relationship Management System
- (8) Supply chain Management system
- (9) manufacturing management System
- (10) Real Estate management System
- (11) Sports Tournament Management System
- (12) Courier & Logistic System
- (13) vehicle registration System
- (14) Content management System
- (15) Hotel management System

movie Ticket Booking System

A database helps in

- storing movie details (name, timing, theatre).
- managing seat availability.
- preventing double booking
- Handling Online Payment
- Generating booking history

DBMS allows real-time update, so when one person books a seat, it becomes unavailable instantly.

Customer Relationship management

A database helps in

- Storing customer contact details
- Tracking sales history
- Managing customer Complaints
- Analyzing customer Behaviour
- Generating reports for Business decision.

DBMS helps companies improves customer service and increase sales.

ATM management System

A database helps in

- Storing account information
- authentication & security
- Tracking Transaction
- Realtime Balance update

3. (A) Student details using excel.

Student

GR-NO	Name	Course	Phone-no	Enrollment-no
792288	Satyam Kumar	CSE	9999988888	925000001101
869432	Rahul Tiwari	CSE	7777766666	10110000529
679248	Santanu Raj	CSE	5555544444	73200001234
592616	Yuvraj Singh	CSE-AD/ML	4843567890	95276000129
781245	Gopal Krishna	MBBS	9786534201	86646232001



(B) Employee Details using ms Access.

Emp ID	Emp_name	Designation	City	Gender
001	Sundar Pichai	CEO	California	Male
002	Shantanu Narayanan	COO-CTO	California	Male
003	Sam Altman	CHRO	San-Francisco	Male
004	Elon Musk	CFO	Astro City	Male
005	Asmita Dubey	CMO	California	Female

(C) Facebook using Excel

Username	follower	following	Post
Nahi_batanga	100	130	17
Kya_karoge_jaan_ke	1700	180	500
Kyu-nahi_ho_sakhe_Padhai	1.9k	11	783