

Zahid Notes

1st Year Computer Science

Chapter 8: Database Development

Federal Board (FBISE) | Proper Notes for Exam Preparation

PROPER NOTES IN ENGLISH: Detailed explanations, examples, solved short and long answers, MCQs and a revision plan.

These notes are written in original words for practice and exam preparation. They are not a copy of the official textbook and they are not a board paper. Students should also read the textbook, because board questions come from the prescribed syllabus.

1. Introduction and Detailed Explanation

Database development means planning, designing and making a database fit for use. First it is decided what data is needed, then tables are made, then data is entered.

In a good database, the same data is not written again and again. This repeated writing is called redundancy, and it should be avoided, because it increases mistakes and confusion.

After a database is made, its testing is necessary. Testing shows whether data is being saved correctly, whether searching works properly, and whether any record is going to the wrong place.

Steps of Database Development

First, the requirements are collected. It is decided what data will be kept and who will use it. Second, tables and fields are designed. Third, the database is made and data is entered. Fourth, it is tested. Fifth, it is used and improved when needed.

Data Integrity

Data integrity means that data is correct, complete and trustworthy. If data is wrong or incomplete, decisions based on it will also be wrong. A good database therefore has rules to stop wrong data from being entered, such as not allowing a blank roll number.

2. Important Definitions

Database Development

The process of planning, designing and making a database.

Redundancy

The same data written again and again, which causes mistakes.

Data Integrity

Data being correct, complete and trustworthy.

Query

A question asked to find particular data from a database.

3. Solved Short Questions

Q1. What is database development?

It is planning, designing and making a database fit for use.

Q2. What is redundancy and why should it be avoided?

It is the repeated writing of the same data. It increases mistakes and confusion.

Q3. Why is testing necessary?

To check whether data is being saved correctly and searching works properly.

Q4. What is a query?

A question asked to find particular data from a database.

4. Solved Long Questions

Q1. Describe the steps of database development and the importance of data integrity.

Database development starts with collecting requirements, that is, deciding what data is needed and who will use it. Then tables and fields are designed. After that, the database is made and data is entered. Then it is tested to check that data is saved correctly and searching works. Finally, it is used and improved when needed. Data integrity is very important in this whole process. It means that data must be correct, complete and trustworthy. If data is wrong, every decision based on it will also be wrong. Rules are therefore made to stop wrong or incomplete data from being entered.

5. MCQs, Fill in the Blanks and True / False

1. The process of making a database is:

- A. Redundancy
- B. Development
- C. Query
- D. Field

Correct answer: B

2. Repeated writing of data is called:

- A. Integrity
- B. Query
- C. Redundancy
- D. Table

Correct answer: C

6. Important Points and Revision Plan

Plan, then tables, then data, then testing

Avoid redundancy, keep data correct

Query = a question to find data

- Read the detail once and write the definitions in your own words.
- Write the short and long answers yourself, then match them with the notes.
- Solve the MCQs and read the important points box again before the test.