**SMALL QUESTIONS**

**CHAP 6**

**ONE**

* **Entity (Person, Place, Thing):** This is the basic unit of information you want to store. Think of it as a specific folder in your filing cabinet, like "Customers" or "Products." Each folder represents a particular category of information.
* **Attribute (Characteristic):** These are the details that describe an entity. Imagine the individual files within a folder. In the "Customers" folder, each file might represent a customer, and the attributes (information within those files) could be their name, address, phone number, and purchase history.
* **Field (Single Piece of Information):** Each attribute is made up of smaller pieces of data called fields. Think of these as the individual sections within a customer file, such as "First Name," "Last Name," "Street Address," and "City."
* **Record (Collection of Fields):** A record groups all the related fields that describe a single entity instance. Imagine a complete customer file containing all the fields (sections) that define a specific customer. Each customer file in the "Customers" folder would be a record.
* **File (Collection of Records):** This is a group of records of the same type. Think of it as a folder in your filing cabinet that holds all the files related to a particular category, like the "Customers" folder. Each file within that folder would be a record about an individual customer.
* **Database (Collection of Files):** Finally, a database is the ultimate organizer. It's a collection of related files that store information about a particular subject area. Imagine having multiple filing cabinets, each dedicated to a specific department or function, like "Sales," "Marketing," or "Inventory." All these cabinets (databases) work together to store and manage your company's information.

**TWO**

**The Data Hierarchy: Your Computer's Filing System Explained Simply**

Imagine your computer's storage like a filing cabinet with folders and files. Data hierarchy is all about how information is organized within this system, from the smallest building block to the bigger picture. Here's a breakdown:

* **At the Core: The Field** - Think of this as the smallest unit of data, like a single word or number. In a customer file, a field might be "First Name" or "Phone Number."
* **Grouping Fields: The Record** - A record is a collection of related fields that describe a single entity. Imagine a complete customer file containing all the information about a specific customer, like their name, address, and phone number. Each record is like a single file in the "Customers" folder.
* **Organizing Records: The File** - This is a group of records of the same type. Think of it as a folder in your filing cabinet that holds all the files related to a particular category, like the "Customers" folder. Each file within that folder would be a record about an individual customer.
* **Mastering the Files: The Database** - Finally, a database is the ultimate organizer. It's a collection of related files that store information about a specific subject area. Imagine having multiple filing cabinets, each dedicated to a specific department or function, like "Sales," "Marketing," or "Inventory." All these cabinets (databases) work together to store and manage your company's information.

**THREE**

**What is a DBMS?**

A DBMS is a software system specifically designed to organize, store, retrieve, and manage data in a structured way. Think of it as a powerful tool that keeps your computer's information organized and easy to access, just like a librarian keeps a library running smoothly.

**FOUR**

**PRIMARY KEY**

A primary key is a special field (or a combination of fields) within a database table that uniquely identifies each record.

**FOREIGN KEY**

A foreign key is a field (or combination of fields) within a table that references the primary key of another table. It creates a link between related data, allowing you to connect information across different tables.

**FIVE**

**Data Definition**

Data, in essence, is a collection of individual pieces of information, facts, or statistics. It can be numbers, words, symbols, or even images that convey some meaning. Think of it as the raw materials from which information and knowledge are built. Data itself doesn't necessarily tell a story, but it holds the potential to be analyzed and interpreted to reveal patterns, trends, and insights.

**Data Dictionary**

A data dictionary, also known as a metadata repository, is like a catalog for your data. It provides a central location where you can define and document the structure, meaning, and usage of your data elements. Imagine it as a key that unlocks the understanding of your data.

**Data Manipulation**

Data manipulation refers to the processes of transforming, modifying, and organizing data to make it more useful for analysis or other purposes. This can involve a wide range of techniques, including:

* **Sorting:** Arranging data in a specific order (e.g., alphabetical, chronological).
* **Filtering:** Selecting specific subsets of data based on certain criteria.
* **Aggregation:** Combining data points to create summaries or totals.
* **Merging:** Combining data from multiple sources into a single dataset.
* **Cleaning:** Identifying and correcting errors or inconsistencies in the data.

**CHAP 8**

**ONE**

**CHAP 13**

**ONE**

**Outsourcing**

**SaaS (Software-as-a-Service)**

SaaS is a software delivery model where the software is hosted by a provider and delivered to users over the internet. Users typically access the software through a web browser or mobile app, eliminating the need for local installation or maintenance. SaaS applications are often subscription-based, with users paying a monthly or annual fee.

**Offshore Outsourcing**

Offshore outsourcing refers to the practice of contracting work or services to companies in a different country, typically one with lower labor costs. This can be applied to various industries, including software development.