

Slide One - Title Screen:

N/A

Slide Two - Introduction:

N/A

Slide Three - Tools & Techniques:

- What is a database?
A database is a collection of organised data in the form of one or more tables.
- Table Structures
Table Structures is the way a database is laid out. This consists of fields with the field title on the header row. Records are the horizontal rows. And the cells being the data.
- Field Characteristics
Field Characteristics are the types of data assigned to a field within a database. These characteristics consist of things regarding data types, character count, etc. These could be used to specify data input to what's desired. It could also be used to limit the size of data imported into the database, making queries have faster searching times, and decreasing the spaces used within the database server(s).
- Validation Rules
Validation rules are restrictions assigned onto fields to set rules. Validation Rules might be put in place to prevent inconsistencies within a database that could cause problems.
- Indexing
Indexing is a structured method that speeds up the retrieval of data from a database. This is done by using data from two fields. Those fields are the primary key and the field under search criteria.
- Records
Records are found along the row of a database and will hold information on all data linked to the primary key at the start of the record. The data of a record is held within the fields. And they'll provide information linked to the primary key.
- Relationships
Relationships is a technique that allows the creation of a more complex database besides flat-file. This is achieved by creating relational links between two or more tables. The way relationships are formed between tables of a database is by putting the primary key of one table into a different, this makes the primary key from the other table a foreign key.
- Forms
Forms are digital documents designed for inputting data into a database without needing access to the database directly. Typically used outside a business environment by a consumer to interact with a database. This might be logging into a website, or possibly on a commercial site buying goods.

- Sorts
Sorts are the process of arranging data within a database in some meaningful way to visualize data within a database to make it easier to understand or go through. There are different sorts depending on the data types of that field. For example, text can be sorted alphabetically or reversed alphabetically. Whereas numbers can be sorted in an ascending order or a descending order.
- Queries
Queries are a set of parameters to isolate records within a database that match the set parameters. Queries are useful for finding specific pieces or sets of data. This can either be queries set by whoever is admin to the database, or queries made by the users of the database.
- Reports
Reports are the visualization and collection of the resulting queries. Reports are made to be more user friendly or presentable within a professional standard.

Slide Four - Amazon: Database Type and Use:

Database: Online Relational Database. An online relational database is a database of two or more tables with a linking field between them that's available online, either publicly or privately within a local network.

What do they use this database for?

Amazon utilizes its database to manage its broad range of digital products. This includes their large online store, streaming services, and servers managing their branded devices, such as the Amazon Echo.

Why do they use this database?

One of the main reasons Amazon uses a database is to improve productivity and efficiency. Because with such a large network of services they offer and the large customer base that comes with it, managing such a system manually would be near impossible. As such, using a database makes for a smooth operation on both the company's end as well as the customers'. One of the tools that might be used to achieve this could be the utilization of data validation. This plays a large part in the productivity improvements from the database. This is because if data within the database wasn't put under rules when being input, that either directly or indirectly (Through the use of forms), there'd likely be conflicting inputs. For example, there might be multiple spellings of codes of a single object, evidently slowing down the system and productivity of the overall database functionality.

Another reason this database is used is to automatically calculate payments for customers. This is yet another key use for the network as it allows payments to be adjusted where needed, depending on variables such as Amazon Prime's free delivery, or discounts on products. When purchasing something from the Amazon Store, for example, a customer could add any number of products to their cart, some possibly on discount, and when they go to check out, the total of their products would be displayed accurately before they go to finalize the payment. One tool used to display that this is in effect is the reports.

The database would also be used to support decisions made by the company. Whether to lower prices for subscriptions or products made by the company. This is because they can use the data within the database to make graphs visualizing trends in purchases or traffic among their network. [___](#)

Slide Five - Amazon: Tools And Techniques Used In The Database

What tools and techniques are used within the database?

Considering the scale of the database, a large number of database tools and techniques are implemented into it. This ensures that the database runs smoothly with minimal errors.

One of the largest tools used is database relationships. One of the possible links could be between customers and payment information. These links must be made to provide correlation between separated information and a user account. Allowing for seamless interaction between the user and the database.

A secondarily large function of this database is its forms. These allow customers to input data into the database without having to input it directly. The most common type of form for online stores or other apps is the signup form, allowing a user to sign up for the site's services. And acting as the primary table that the other tables within the database attach to. An example could be the addition of a product to their roster. The company would utilize forms to input data on new products to prevent problems.

Slide Six - Local School