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TITLE: DATABASE SYSTEMS

Github-link:

[https://github.com/Ahmed-Hasona/HTML-proget-
Repository](https://github.com/Ahmed-Hasona/HTML-proget-Repository)

Github-pages(published-website):

<https://ahmed-hasona.github.io/HTML-proget-Repository/>

Section screenshots:

Database Basics page

Links:

- [Main Page](#)
- [Importanc Databse](#)
- [Types of databases](#)
- [Advantages Databse](#)
- [images of Database](#)
- [Database System Updater](#)

Database Advantages Page

Links:

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advantages database

Data management

A DBMS provides an organization with a framework to handle the data more easily.

Data independence

The data is kept independently of the application programs which use it in a database system. Changes in the data or how it is stored do not necessarily affect the programs which use the data.

Data sharing

Information storage in a centralized data archive and maintenance of DBMS allows data collection to be connected with growing apps and consumers.

Reducing Data Redundancy

Many remote users will concurrently access the database, and distribute the data among themselves. Integrity of Data.

Backup

Database Management System takes care of the backup and recovery automatically.

Details

Source-code:

```
<html>
  <body>
    <h1>Database Advantages Page</h1>

    <h2> Links: </h2>
    <ul>
      <li><a href="Mainpage.html">Main Page</a></li>
      <li><a href="importancedatabase.html">Importanc Database</a></li>
      <li><a href="Typesofdatabases.html">Types of databases</a></li>
      <li><a href="advantagesdatabase.html">Advantages Database</a></li>
      <li><a href="databaseimages.html">images of Database</a></li>
    </ul>

    <table style="width:100%">
      <tr>
        <th><h2>advantages database</h2></th>
        <th><h2>Details</h2></th>
      </tr>
      <tr>
        <td>Data management</td>
        <td>A DBMS provides an organization with a framework to handle the data more easily.</td>
      </tr>
      <tr>
        <td>Data independence</td>
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      </tr>
      <tr>
        <td>Data sharing</td>
        <td>Information storage in a centralized data archive and maintenance of DBMS allows data collection  
Be connected with growing apps and consumers.</td>
      </tr>
      <tr>
        <td>Reducing Data Redundancy</td>
        <td>Many remote users will concurrently access the database, and distribute the data among themselves.  
Integrity of Data.</td>
      </tr>
      <td>Backup</td>
      <td>Database Management System takes care of the backup and recovery automatically.</td>
    </table>
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</html>
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<html>
  <body>
    <h1>Database images page</h1>

    <h2> Links: </h2>
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      <li><a href="Mainpage.html">Main Page</a></li>
      <li><a href="importancedatabase.html">Importanc Database</a></li>
      <li><a href="Typesofdatabases.html">Types of databases</a></li>
      <li><a href="advantagesdatabase.html">Advantages Database</a></li>
      <li><a href="databaseimages.html">images of Database</a></li>
    </ul>

    
    
    

  </body>
</html>
```

Application brief:

The data base is:

A collection of structured information so it can be easily accessed managed and updated. Computer databases usually contain aggregations of data records or files which contain sales transaction information or customer-specific interactions.

Server management systems are designed for data bases maintenance.

❖ A Database Management System (DBMS) is a software framework used to store and coordinate data using a structured procedure. Using through regular algorithms and queries the data can be inserted, modified, discarded or traversed.

From this simple definition, we conclude that there is an important data base characteristic, which is "continuity" or "permanence" in data preservation.

Database Properties Were:-

Integrated: Formerly, separate data files were to remove or minimize complexity and encourage data access.

Shared: To use in a range of operations, all eligible participants in the enterprise have access to the same info.

Interrelated: Structured in a logically meaningful manner for the organization.

Important Database definitions include:

Schema-The data structure and constraints Data, The actual DB content representing the data, Language for the application structure, used to define the schema Data handling and query language, used to modify and test the results

A vast volume of information is stored, organized and managed by database management system.

Using this system increases efficiency in operations and reduces overall costs.

Businesses and organizations need data base management systems because they offer a highly efficient method for managing multiple data types.

The database is composed of:

1- Structure of the database Conceived as a single entity comprising a collection of interrelated files.

2- Repository Including rules for users to access data and rules for organizing data, i.e. metadata.

3- End users accessing the database.

Important for databases:

- A database management system is critical because it manages the data efficiently and enables users to easily perform multiple tasks.
- A large amount of information is collected, organized and handled by a database management system.
- Using this system increases efficiency in operations and reduces overall costs.
- Businesses and organizations need data base management systems because they offer a highly efficient method for managing multiple data types.

Types of Database Management Systems:

- 1- Hierarchical databases
- 2- Network databases
- 3- Relational databases
- 4- Object-oriented databases
- 5- Graph databases
- 6- ER model databases
- 7- Document databases
- 8- NoSQL databases.

Database Advantages:

- 1- Data sharing: Information storage in a centralized data archive and maintenance of DBMS allows data collection be connected with growing apps and consumers.
- 2- Reducing Data Redundancy: Many remote users will concurrently access the database, and distribute the data among themselves.
- 3- Backup: Database Management System takes care of the backup and recovery automatically.