Bangladesh Open University

Diploma in Computer Science and Application Program (DCSA)

**Database Management System**

TMA - 1

Microsoft Access, tasks, forms, queries, and reports

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Let's dive into the details of tasks, forms, queries, and reports in Microsoft Access, along with examples to illustrate their functionality:

**Tasks:**

Tasks in Microsoft Access refer to the operations performed within a database. These can include data entry, modification, deletion, validation, and other actions required to manage data effectively. For example, a task could be entering new customer information into the database, updating employee records, or deleting outdated inventory items.

**Example:**

Let's consider a scenario where you have a database for managing a bookstore. A task in this context could be entering new book details into the database, including information such as the book's title, author, genre, publication date, and price. By performing this task, you populate the database with the necessary information to track and manage your bookstore's inventory.

**Forms:**

Forms in Microsoft Access provide a user-friendly interface for entering, viewing, and modifying data. They simplify the data entry process and enhance the user experience by presenting information in a structured and intuitive manner. Forms can be customized to include various controls and design elements.

**Example:**

Continuing with the bookstore database example, you can create a form that allows you to enter new book information conveniently. The form may include text boxes for entering the book's title, author, and price, dropdown lists for selecting the genre and publication date, and buttons to submit the entered data. By utilizing the form, you can input book details more efficiently compared to directly modifying the underlying tables.

**Queries:**

Queries in Microsoft Access enable users to retrieve, manipulate, and analyze data from the database. They allow for the extraction of specific information based on defined criteria and perform calculations and aggregations on data.

**Example:**

In our bookstore database, you may want to retrieve a list of books published in a specific year. You can create a query that filters the books based on the publication date and returns the desired results. The query can be designed to display the book title, author, and price of books published in the chosen year. By executing the query, you obtain a focused and customized result set that meets your specific criteria.

**Reports:**

Reports in Microsoft Access are used to present data in a structured and visually appealing format. They allow for summarizing, organizing, and presenting data from tables or queries. Reports can include headers, footers, groupings, subtotals, totals, charts, graphs, images, and other design elements to enhance the presentation of data.

**Example:**

In the bookstore database, you may want to generate a report that provides an overview of the top-selling books by genre. The report can include a summary of sales, the number of books sold per genre, and a chart displaying the distribution of sales across genres. By creating this report, you can visually communicate essential information and insights about the performance of different book genres.

By leveraging tasks, forms, queries, and reports, Microsoft Access empowers users to effectively manage and interact with their databases. These components facilitate data entry, retrieval, analysis, and presentation, making the database more accessible and usable for users with varying levels of technical expertise.