Forms, Reports and Applications in DBMS: A Study

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ABSTRACT:

Forms and reports are an important part of the database application. Decision makers and clerical workers use forms and reports often. Designers use them to create an integrated application .Users can perform their tasks easily by using forms and reports. Forms are used to collect data, display results of the queries, perform computations etc.

Reports are used to give the summary data. The report may be given as in graphical manner. Generally it would occupy one page. Applications are built as a collection of related Forms and reports. All the users access the database using forms and reports. So it should be designed to match the user's tasks.

Keywords:- triggers, forms, task, frame, reports, hyperlink.

EFFECTIVE DESIGN OF FORMS AND REPORTS

Forms and Reports are the primary contact with the user. Before designing the form we must analyze the user requirement. All the forms and reports within the application must be a consistent one. The commands, Keystrokes, Icons should be used for the same purposes throughout the application. Color and structure must be coordinated so users can understand the data easily on any form or report.

HUMAN FACTORS DESIGN

In the current operating system the primary fact is that the users and not the application should always have control. For example, do not expect the users to enter the data. Instead make the users to select the data from the list. So based upon the users choice various events are triggered. Our application must respond to the user's triggers or events by performing calculations, storing data and offer new choices. Both the design and color must be consistent throughout the application. If the

application has multiple forms and reports organize them according to user tasks. There should be clarity in our application.

Clarity means keeping our application simple and well organized. For example if a company refers the employees as Associates use the term, instead of Employees. Aesthetics also play an important role in the user interface. Use color and design to enhance the forms and reports. But don't change the color often. Maintain the same color for different forms will be better instead of using different colors for different forms for the within a particular application. Feedback is fundamental and essential to most human-computer interactions. The user wants to know that if they press a key the computer recognizes their actions and it respond to their action. The uses of feedback include accepting input, acknowledging changes of data, high lighting completion of a task, signifying the task. Some systems use audio feedback when user selects a task. If we are using audio feedback means we should be sure that there should be no noisy music .Because some users will not like that. So give a list of choices of music themes to the users and make them to select.

WINDOW CONTROLS

The components of the window consist of the frame, the title bar, a control menu box and various standard buttons. The frame can be resized by the user. The title for each form must be short and meaningful. The control menu box provides standard commands to move, resize and close the form. Common window buttons include Maximize and Minimize and Close. Scroll bars enable the users to scroll the form horizontally and vertically. Menus are an important feature of any application. The most common menu is a drop-down menu displayed at the top of the screen. The menu contains list of actions. Mnemonic letters are generally underlined. (Example the F in the File command).Many applications also define shortcut keys. These commands generally include with Ctrl key combination.(example Ctrl+C command to copy a selection.) Developers use a pop-up or shortcut menu. To trigger a pop-up menu click the right mouse button .The pop-up menu is usually context sensitive. A context-sensitive menu is one that changes depending on the object selected by the user. Message box is an example for the pop-up menu. Message box is used to display short one-line messages (usually yes/no) responses from the user. In general it is best to avoid the use of message boxes because they remove the control from the user.

USER INTERFACE-WEB NOTE

In many ways the web environment is similar to the standard Windows environment. All the web pages and forms are standararized because they are displayed the same way on almost any type of computer. Clicking a hyperlink brings a new page, buttons are used to submit a form, and drop-down lists are used to select an item and so on.

USER INTERFACE-ACCESSIBILITY ISSUES

The greatest strengths of the windows interface is its graphical orientation. We can

make our applications accessible to many users. Microsoft guidelines provide some suggestions for making our application accessible to more users. Detailed ideas and current developments are found on the website. Don't use red -green color combination. Try to use high contrast colors so that most people can differentiate the colors. We can use black, white, red, blue and yellow. Give the list of colors and make the users to select their desired color from the list. Avoid requiring rapid user responses. Don't put time limits on input because many users have slower data entry skills. Avoid controls that flash rapidly on the screen. Enable the users to customize their screens. Make them to choose the font size, font style and screen colors. If you use sounds, let people control the volume, even pitch. Also test your application on various computers because some video systems will be incapable of displaying your forms at the desired resolution.

FORM LAYOUT

There are four basic types of forms. They are
1. Tabular Forms
2. Single-row Forms
3. Sub form Forms.
4. Switchboard forms.

Tabular forms display data in rows and columns. Single-row forms show data for one row at a time in which the designer can arrange the values in any format in the screen. Sub form forms display data from two tables that have a one-to-many relationship. Switchboard forms or menus direct the user to other forms and reports in the application.

Forms have several things in common. They have properties which are used to control the look and style of the form. Forms also have controls which includes labels and textboxes. Several events can occur in the forms. Opening and Closing are the basic events in the form. Although a form can have multiple controls only one control will have the focus. The control which has the focus will receive the keystrokes entered by the user. This control is highlighted with an outline or different color. The users can make use of the tab order. If we set the tab order means the users can easily move from one control to the next by just pressing the tabs.

CONCLUSION

Form is an interface with components for displaying, entering, selecting data. With the different types of forms we can enrich our application interactive to the users. Also always make the users to select the data from the forms. Use the different types of form according to the projects. To display the datas in tabular view use tabular forms. Use sub form and switchboard forms according to need of the application.

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