MODULE 3 QB

-PP

1) Explain the guidelines to be followed in phrasing menus during the development of system menus.

Ans) Following are guidelines to be followed in phrasing menus:

❖ **Main menu:**

- Menu title should immediately make the viewer understand the menu's content and purpose.
- Should be short, clear, distinctive and descriptive.
- Title should represent the entire series of choices.
- It is an important contextual and navigation component.

❖ **Submenus:**

- Submenu titles must be worded exactly the same way as the menu choice previously selected to display them.
- This will provide structural continuity.
- It assures users that they are progressing as expected through a menu hierarchy.

❖ **General:**

- Locate the title at the top of a listing of choices, in the title bar.
- Display title in uppercase or in a mixed-case font using the headline style of presentation.
- For headline style, capitalize the first letter of each significant title word.
- Case style chosen should be consistently used on all menus.
- Titles that add nothing to the understanding of menu content and context, may be omitted.
- Better to have a pop-up menu request during a text editing task.
- Message windows do not need a title either; the text of the message provides the context.

❖ **Menu Choice Descriptions:**

- Create meaningful choice descriptions that are familiar, fully spelled out and distinctive.
- Descriptions may be single words, compound words, or multiple words or phrases.
- Place the keyword first, usually a verb.
- Capitalize the first letter of each significant word in the choice description.
- Exception: Menu bar items should be a single word (if possible).

❖ **Menu Instructions:**

- Left-justify the instruction.
- Leave a space line, if possible, between the instructions.

❖ **Intent Indicators:**

- Provide an indication of what will happen when a menu item is selected to enhance predictability.
- Items causing a direct action will have no indicator.

❖ **Keyboard Equivalents:**

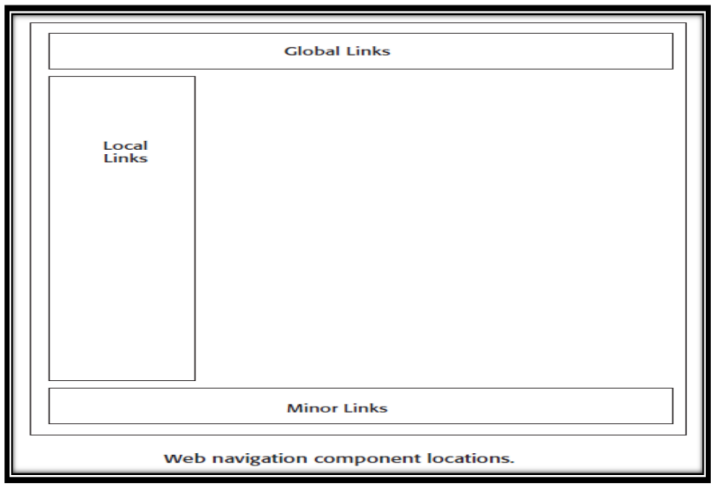
- Ability to select a menu alternative through the keyboard should always be provided.
- The mnemonic should be the first character of the menu item's description.

❖ **Keyboard Accelerators:**

- (Take few points from 7th Ans)

2) Explain the components of web navigation system with illustration.

Ans)



1. Browser Command Buttons:

- Provides navigation controls within the application for the movement within the application.
- They can take the form of links or command buttons such as Next and Previous.

2. Web Site Navigation Bars:

- Provides a global navigation bar at the top of each page.
- Provides a minor illustrative or footnote links at the end of the page.
- Consistency that reduces learning and avoids user confusion.
- For long pages, provide a navigation bar repeating important global or local links at the bottom of the page.

3. Textual Phrases:

- Textual phrases are words, or short pieces of highlighted text, serving as links.
- Textual phrase links possess two distinct structures - explicit and embedded.

4. Graphical Images or Icons:

- They may appear in an array in the form of a navigation bar or be individually located at relevant points in a page.

5. Command Buttons:

- They may appear in an array in the form of a navigation bar or be individually located at relevant points in a page.

6. Other Web Site Navigation Elements:

i) Overviews:

- It provides a top-level view of a site's organization and content.
- It will permit review of major topics and the subtopics within.

ii) Historical Trails:

- Provides information to user by showing them where they have come from, or where they have been.
- Displayed paths also provide a means to easily return to places of interest.

iii) Search Facility:

- Navigation support is provided within larger sites.

3) Explain the different elements of menu contents.

Ans) A menu consists of four elements, its context, its title, its choice descriptions and its completion instructions.

1. Menu Context:

- Provides information to keep the user oriented.
- Feedback necessary that tells users where they are in a process, what their past choices were and possibly how much farther they still have to navigate.
- Verbal linkage, spatial linkage, or both may be used to provide navigation feedback.
- Verbal linkage - involves providing a listing of choices made on previous menus that have led to this position.
- Spatial linkage - can be accomplished by graphic methods.

2. Menu Title:

- A menu's title provides the context for the current set of choices.
- Title must reflect the choice selected on the previously displayed menu.

3. Choice Descriptions:

- Choice descriptions are the alternatives available to the user.
- Can range from a mnemonic, numeric, or alphabetized listing of choices to single words or phrases to full sentences or more.
- Style chosen will reflect
  - experience of the user (novice or expert)
  - nature of the choices (well-learned alternatives or not)
  - nature of the selection mechanism (keyboard or mouse)
  - nature of the system (business system application or Web page).

4. Completion Instructions:

- Completion instructions tell users how to indicate their choices.
- Explicit instructions may be needed for first time or casual users of a system.
- Experienced users will find very wordy instructions unnecessary.
- Needs of all system users and the nature of the system, must be considered in creating this kind of on-screen guidance.

4) Explain the guidelines to be followed for formatting menus.

Ans) The following are the guidelines for formatting menus:

1) Consistency:

- Menu design consistency is an integral component of system usability.
- Provide consistency with the user's expectations.

2) Display:

- If only occasional references to menu options are necessary, the menu may be presented on demand.
- Critical options should be continuously displayed.

3) Presentation:

- A menu and its choices should be immediately recognizable by the user as being a menu of choices.
- Techniques chosen should be consistent throughout the system.

4) Organization:

- Provide a general or main menu.
- Display: - All relevant alternatives.
  - Only relevant alternatives.
- Delete or gray-out inactive choices.

- Match the menu structure to the structure of the task.
- Minimize number of menu levels within limits of clarity.
- Never require menus to be scrolled.

5) Complexity:

- Providing two sets of menus will more effectively satisfy the differing needs of the novice and expert user.
- Expert may prefer a full set of options.

6) Item Arrangement:

- For easy scanning, menu choices should be left-justified and aligned vertically into columns.
- Do not array a menu in multiple columns.

7) Ordering:

- Options must be ordered in meaningful ways.
- Understanding structure and relationships helps in focusing attention on that which is relevant.

8) Groupings:

- Create groupings of items that are logical, distinctive, meaningful, and mutually exclusive.
- Provide immediate access to critical or frequently chosen items.

5) List the different types of graphical menus. Explain any three in detail.

Ans)

1) Menu Bar

2) Pull-Down Menu

3) Cascading Menus

4) Pop-up Menus

5) Tear-off Menus

6) Iconic Menus

7) Pie Menus

Menu Bar:

- A menu bar is the starting point for many dialogs.
- It often consists of a series of textual words.
- It will have a pull-down menu associated with it, detailing the specific actions that may be performed.

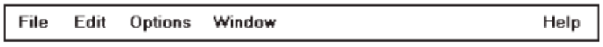


Figure 3.19: Menu bar composed of text

Figure 3.20: Menu bar composed of buttons

Advantages:

They

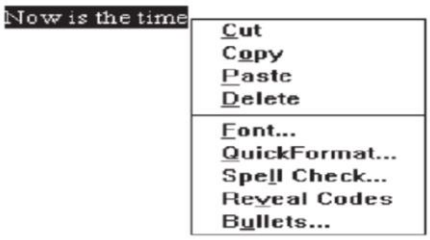
- Are always visible to the user
- Are easy to browse through.
- Are easy to locate consistently on the screen.
- Usually do not obscure the screen working area.

Disadvantages:

- They consume a full row of screen space.
- Their horizontal orientation is less efficient for scanning.
- Their horizontal orientation limits number of choices that can be displayed.

Pop-up Menus:

- Use to present alternatives or choices within the context of the task.
- When positioned over text, for example, a pop-up might include text-specific commands.



Advantages:

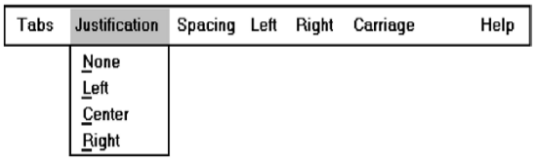
- They appear in the working area.
- They do not use window space when not displayed.
- Their vertical orientation is most efficient scanning.
- Their vertical orientation most efficient for grouping.

Disadvantages:

- Their existence must be learned and remembered.
- They require a special action to see the menu (mouse click).
- Their display locations may not be consistent.

Pull-Down Menu:

- The choices are displayed in a vertically arrayed listing that appears to pull down from the bar.
- Most useful for a small number of rarely changing items.
- Items are represented textually.



Advantages:

- No window space is consumed.
- Easy to browse.
- Most efficient for scanning, grouping.
- More choices to be displayed.

Disadvantages:

- Require searching and selecting.
- Items are smaller.
- They may obscure the screen working area.

Pull-Downs Leading to Another Pull-Down:

Pull-Downs Leading to a Window:

6) Explain the general guidelines that are followed when establishing navigation links.

Ans)

1. Sensible:

- All navigation controls, in the absence of site context, must make sense to the user.
- The user may have "lost" the context, or the page or Web site may have been entered from almost anywhere.

2. Available:

- All navigational controls must be easy to access.
- If they are not readily available, the full advantages of hypermedia may not be achieved.

3. Obvious and distinctive:

- A navigation link or control must look like a navigation control.
- Its appearance to the user must immediately suggest that it is an entity to be clicked or otherwise selected.
- Do not make any other screen element look like a navigation tool if it is not one.

4. Consistent:

- All elements must be consistent in appearance and behaviour.

5. Textual:

- All navigation must have a textual label or description.
- Navigation using textual descriptions is much preferable.
- Textual links are also necessary for users who do not have graphics, or who have chosen not to display graphics.

6. Provide multiple navigation paths:

- Offer multiple paths or ways to move around the Web.
- Provide structural components such as site maps, a table of contents, and indexes to go directly to a point of interest.
- Provide command buttons, such as Next and Previous, to move sequentially.

7) Write a note on keyboard accelerators.

Ans)

- Accelerators are keys, or combinations of keys, that invoke an action regardless of cursor or pointer position.
- Used to activate a menu item without opening the menu.
- Most useful for frequent activities performed by experienced users.
- Some companies call these keys as shortcut keys. They may also be called hot keys.
- They make it easier to accomplish an action.
- Function key shortcuts are usually easier to learn than modifier plus letter shortcuts.
- Pressing no more than two keys simultaneously is preferred; three keystrokes is the maximum.
- Use standard keyboard accelerators when they exist.

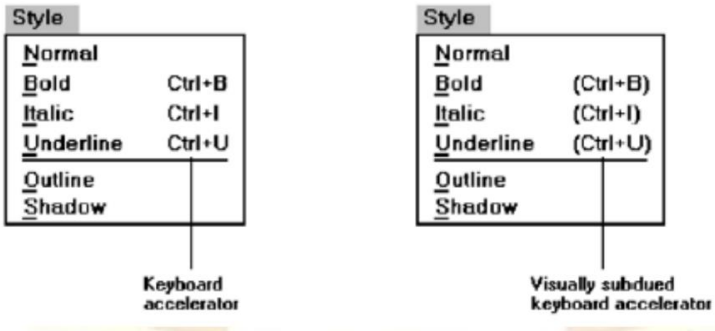


Figure 3.10: keyboard Accelerator

8) Explain the functions of the Menu.

Ans)

1) Displaying information

2) Navigation to new Menu

3) Execute an action or procedure

4) Data or parameter Input

1) Displaying information:

- The main purpose of selecting a menu choice may simply be to display information.
- The user may be searching the database or web.
- The user's focus will be more on information desired rather than on the selection.

2) Navigation to a New Menu:

- Each user selection causes another menu in a hierarchical menu tree to be displayed.
- The purpose of each selection is to steer the user toward an objective or goal.
- Selection errors may lead the user to go in wrong paths, cost time and perhaps, aggravation.
- But these errors are non-destructive and usually unavoidable.

3) Execute an Action or Procedure:

- A user selection directs the computer to implement an action or perform a procedure.
- The action may be something like opening or closing a file, copying text, or sending a message.
- In some cases, execution may only occur after a hierarchical menu tree is navigated.
- In other cases, actions may be performed as successive hierarchical menus are encountered and traversed.

4) Data or Parameter Input:

- Each selection specifies a piece of input data for the system or provides a parameter value.
- Data or values may be input on a single menu or spread over a hierarchy of menus.

9) Explain and illustrate the structure of menus with illustrations.

Ans)

1) Single Menus:

- A single screen or window is presented to seek the user's input or request an action to be performed.
- A single menu may be iterative if it requires data to be entered into it and this data input is subject to a validity check that fails.
- Single menus conceptually require choices from this single menu only, and no other menus will follow necessitating additional user choices.

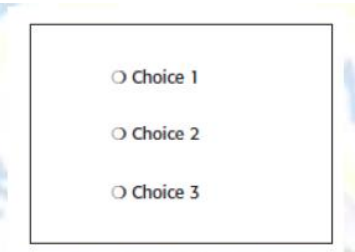


Figure 3.1: Single Menu

2) Sequential Linear Menus:

- Presented on a series of screens possessing only one path.
- Menu screens are presented in a preset order.
- Their objective is to specify parameters or enter the data.
- Length of the path may be short, or long, depending upon the nature of the information being collected.

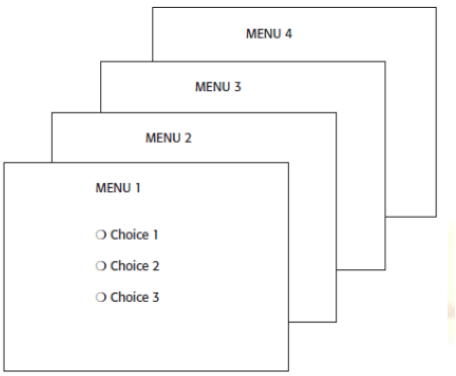


Figure 3.2: sequential linear menu

3) Simultaneous Menus:

- Instead of being presented on separate screens, all menu options are available simultaneously.
- Menu may be completed in the order desired by the user, choices being skipped and returned to later.
- All alternatives are visible for reminding of choices, comparing choices and changing answers.

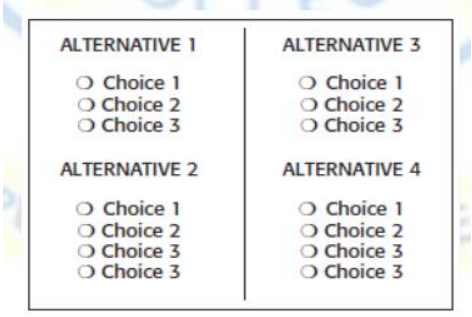


Figure 3.3: Simultaneous Menus

4) Hierarchical Menus:

- When many relationships exist between menu alternatives, and some menu options are only appropriate depending upon a previous menu selection, a hierarchical structure is the best solution.
- A hierarchical structure can best be represented as an inverse tree, leading to more and more branches as one moves downward through it.
- Hierarchies must be consistent with user expectations, and choice uncertainties be reduced as much as possible.
- It must also be easy to back upward through the tree to facilitate exploration of the tree.

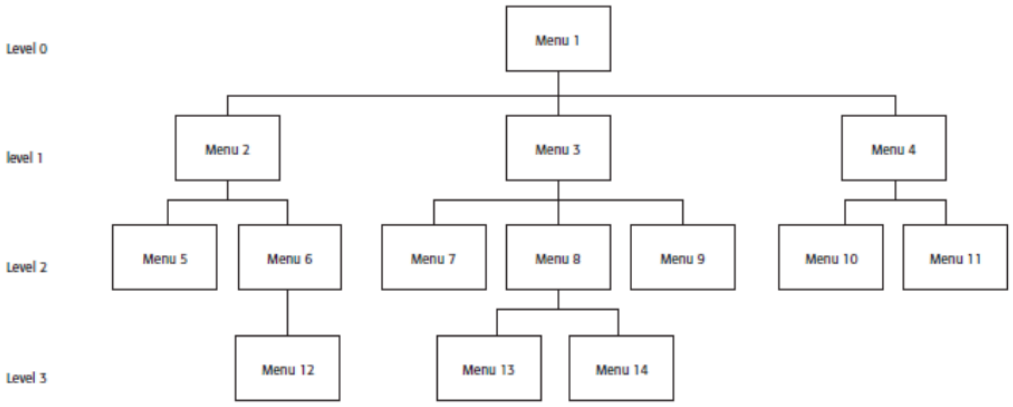


Figure 3.4: Hierarchical Menus

5) Connected Menus:

- Connected menus are networks of menus all interconnected in some manner.
- Movement through a structure of menus is not restricted to a hierarchical tree, but is permitted between most or all menus in the network.
- Advantage: It gives the user full control over the navigation flow.
- Disadvantage: Its complexity, and its navigation may be daunting for an inexperienced user.

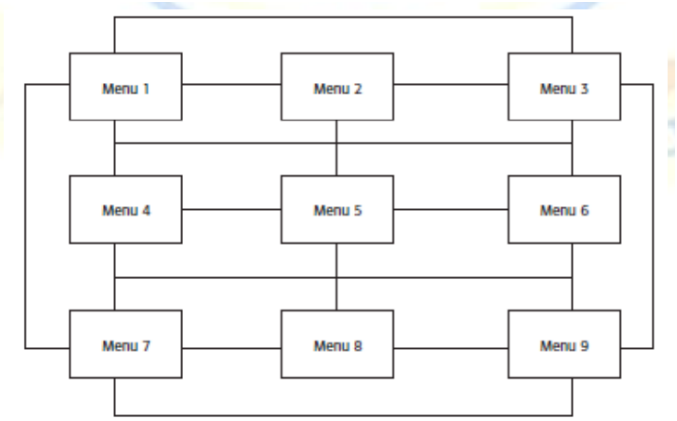


Figure 3.5: Connected Menus

6) Event-Trapping Menus:

- Event Trapping menus provide an ever-present background of control over the system's state and parameters while the user is working on a foreground task.
- They are a set of simultaneous menus imposed on hierarchical menus.
- In a graphical system, for example, existing together are a simultaneous menu, the menu bar, and a hierarchy - the menu bar and its pull-downs.
- These menus can also change content based upon the system state, or an event, existing at that moment.