GALGOTIAS UNIVERSITY

Greater Noida, Gautam Buddha Nagar Uttar Pradesh, India

SCHOOL OF COMPUTING SCIENCES & ENGINEERING

COURSE: USER INTERFACE DESIGN

COURSE CODE:MCAN1241

SEMESTER : 2ND

Submitted By:	Submitted To:
NAME :- SUNNY KUMAR ADMISSION NO :- 21SCSE2030160	DR. GARIMA RATHI

School of Computing Science and Engineering

Greater Noida, Uttar Pradesh

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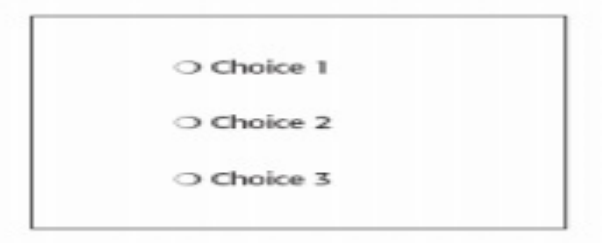
Q.1 Explain the structure of menu and what are its function?

Ans :

SINGLE MENUS

In this simplest form of menu, a single screen or window is presented to seek the user's input or request an action to be performed

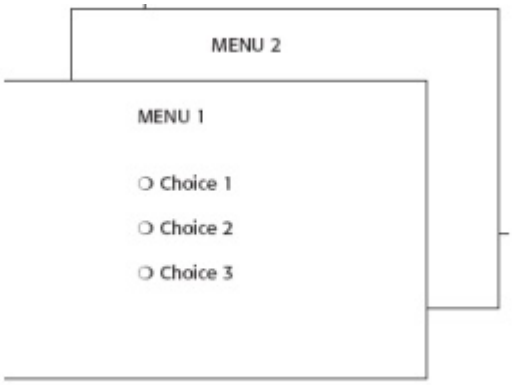


Function: A single menu may be iterative if it requires data to be entered into it and this data input is subject to a validity check that fails. The menu will then be represented to the user with a message requesting reentry of valid data.

SEQUENTIAL LINEAR MENUS

Sequential linear menus are presented on a series of screens possessing only one path.

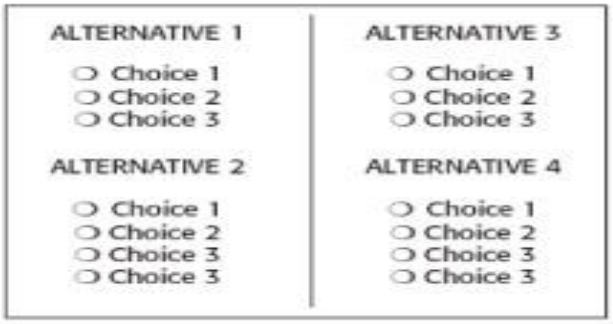
Function: The menu screens are presented in a preset order, and, generally, their objective is for specifying parameters or for entering data.



Sequential path menus have several shortcomings. A long sequence may become tedious as menu after menu is presented.

SIMULTANEOUS MENUS

Instead of being presented on separate screens, all menu options are available simultaneously



Function: Problems with simultaneous menus are that for large collections of menu alternatives screen clutter can easily occur, and screen paging or scrolling may still be necessary to view all the choices.

Presenting many menu dependencies and relationships on a screen, especially if poorly indicated, can also be very confusing

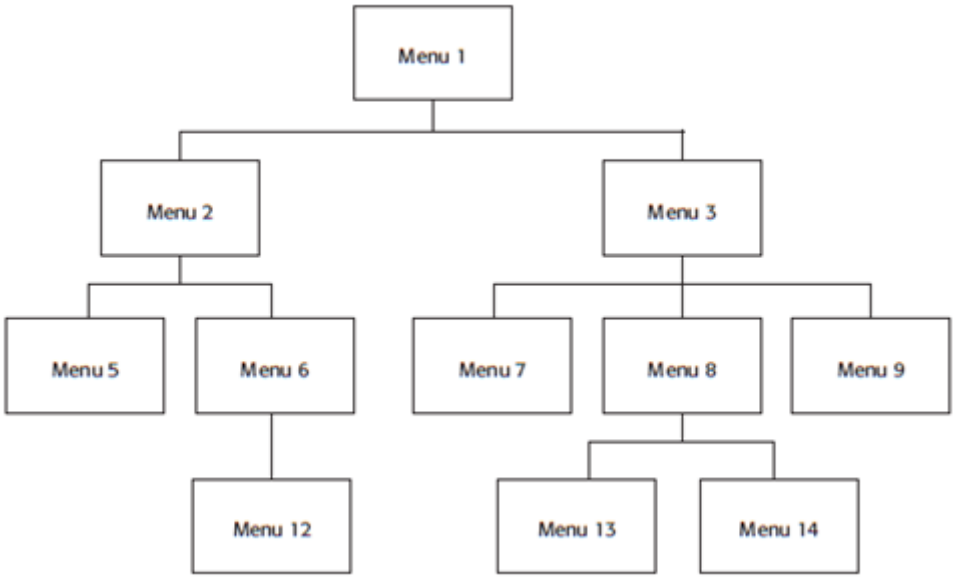
HIERARCHICAL MENUS

A hierarchical structure results in an increasing refinement of choice as menus are stepped through, for example, from options, to suboptions, from categories to subcategories, from pages to sections to subsections, and so on

Function: A hierarchical structure can best be represented as an inverse tree, leading to more and more branches as one moves downward through it.

If users are not familiar with the hierarchical menu, or are unable to predict what suboptions lie below

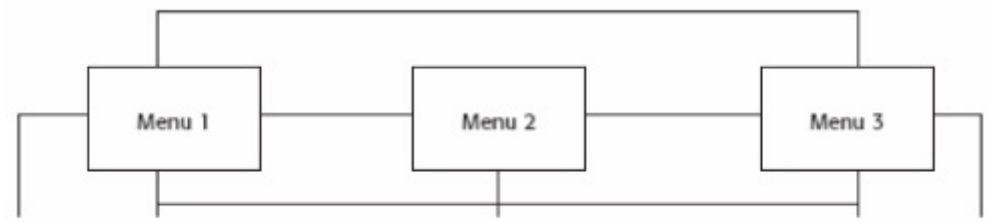
a particular choice, they may go down wrong paths and find it necessary to go back up the tree to change a choice, or perhaps even return to the top-level menu



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.

Function :A connected menu system may be cyclical, with movement permitted in either direction between menus, or acyclical, with movement permitted in only one direction. These menus also vary in connectivity, the extent to which menus are linked by multiple paths.



The biggest advantage of a connected menu network is that it gives the user full control over the navigation flow. Its disadvantage is its complexity,

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.

Function: They may immediately change some parameter in the current environment (bold a piece of text),

they may take the user out of the current environment to perform a function without leaving the current environment (perform a spell check), or

they may exit the current environment and allow the user to move to a totally new environment (Exit).

Q2 Explain the following :

- **i) Graphical Menu**
- **ii) Navigating Menu**
- **iii) Contents of Menu**

Ans:

i) Graphical Menu: **Graphical user interface elements** are those elements used by graphical user interfaces (GUIs) to offer a consistent visual language to represent information stored in computers. These make it easier for people with few computer skills to work with and use computer software.

Kinds Of Graphical Menus

1.Menu Bar:

The highest level graphical system menu is commonly called the menu bar.The Menu bar consists of a series of textual words or buttons.These are used

to represent the application alternatives or choices to the user.All primary window must have a menu bar.All menu bars must have an associated pull down menu which containing atleast 2 choices.It does not allows the user to turn off the display of the menu bar.

2.Pull-Down Menus:

These are the first level menus which is used to provide access to the common and most frequently used application actions that take place on a wide variety of different windows.These are a smaller number of items.No window space is consumed when they are not used.These menus are easy to browse.

3.Cascading Menus:

A cascading menu is a sub menu which is derived from a higher level menu,most typically a pull down menu.It don not exceed 3 menu levels that is 2 cascades.This is called Cascading menus.

4.Popup Menus:

The choices may be presented to the user on the screen through popup menus.These menus appear in the working area.They do not use window space when not displayed.No pointer movement is needed if selected by button.They require a special action to see the menu.Their display location may not be consistent.This is called Popup Menus.

ii) Navigating Menu

The main navigation is often presented in a global navigation area — meaning that it remains the same across the entire website. This area tends to include the site logo and functional navigation such as login and search links.

> The styles for navigation menus are functional, supporting a user's experience, but are also inherently part of the design itself (and are, thereby function AND form). Here, we explore the different types of navigation menu structures, describing and displaying the usage factors for each menu type.

iii) Contents of Menu

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

Menu Context

A menu's context provides information to keep the user oriented.

Feedback is 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.

Choice Descriptions

Choice descriptions are the alternatives available to the user.

These descriptions can range from a mnemonic, numeric, or alphabetized listing of choices to single words or phrases to full sentences or more.

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 overly verbose instructions unnecessary.The needs of all system users, and the nature of the system, must again be considered in creating this kind of on-screen guidance.