**Terna Engineering College**

**Computer Engineering Department**

Program: Sem VIII

**Course: Human Machine Interaction (HMI)**

**Faculty: Umesh B Mantale**

**LAB Manual**

**PART A**

(PART A : TO BE REFFERED BY STUDENTS)

**Experiment No.07**

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| **A.1** | **Aim:** |
|  | Design the logically justifiable menus for selected website/application. |
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| **A.2** | **Prerequisite:**   1. Knowledge of User Interface Designing. 2. Knowledge of Human Centered Design. 3. Knowledge about HTML 4. Knowledge about HMI design Principles |
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| **A.3** | **Outcome:** |
|  | **After successful completion of this experiment students will be able to**   1. Apply HMI principles, guidelines color, vision and memory based principles in designing Interactive user interfaces for any specific application example Menus. |
|  |  |
| **A.4** | **Theory:**  A **menu** is a set of options presented to the user of a computer application to help the user find information or execute a program function. Menus are a major form of navigation through a system and, if properly designed, assist the user in developing a mental model of the system. Menus are effective because they utilize the more powerful human capability of recognition rather than the weaker capability of recall. Working with menus reminds people of available options and information that they may not be aware of or have forgotten. A menu is a set of options presented to the user of a computer [application](http://searchsoftwarequality.techtarget.com/definition/application) to help the user find information or execute a program function. Menus are common in graphical user interfaces ( [GUI](http://searchwindevelopment.techtarget.com/definition/GUI) s) such as [Windows](http://searchwindowsserver.techtarget.com/definition/Windows) or the [Mac OS](http://whatis.techtarget.com/definition/Mac-OS) . Menus are also employed in some [speech recognition](http://searchcrm.techtarget.com/definition/speech-recognition) programs In a graphical drop-down menu, clicking on an item (text word, button or [icon](http://whatis.techtarget.com/definition/icon) ) causes a list of new items to appear below that item. An example can be seen by clicking on one of the text words such as "File" or "Edit" in the horizontal list at the top of the screen in a Windows application. Clicking on an item in the menu executes the indicated function or generates another menu. In a variant of the drop-down menu called a fly-out, the list appears to the side of the clicked item. A pop-up menu appears above the clicked item when the main list is at the bottom of the window or screen. A menu may occasionally appear with apparent spontaneity at a random location in a window. This type of menu, also known as a pop-up, is usually meant to forestall a potential problem or prevent a user from making a mistake. A pop-up menu with only two choices, such as Yes/No, is called a dialog box. Pop-up menus should not be confused with [pop-up ad](http://whatis.techtarget.com/definition/pop-up-ad) s that is used in some commercial [Web site](http://searchsoa.techtarget.com/definition/Web-site) s. In a speech-driven system, a menu is presented as a set of audible choices to which the user can respond by pressing a button or speaking aloud. This type of menu is common in telephone answering systems and automated customer-service programs. Item selection may have to be carried out several times as the user drills down to reach the desired department or information.  **A.4** |
| **A5.**  **A6**. | **Procedure:**  Select any website which you found the give information is much cluttered.  For example consider the news websites like CNN. It takes the user a few minutes to find his way through and maybe more minutes to look for some specific information. Redesign the news websites to make it look less cluttered, provide relevant information (a person sitting in Russia should not get US news as top news), intelligently dig information that he might be interested in based on his searches on the web. The following menu topics can be considered while designing:   * The structure of menus * The function of menus * The content of menus * Formatting menus * Writing menus * Navigation using menus * Types of graphical menu   **Example:**  The below pictures are about two different websites. By viewing itself the designer could understand the drawbacks and advantages of both.  http://img.usabilitypost.com.s3.amazonaws.com/1212/trend_tnw.png |
|  | Image result for guardian online newspaper |

**PART B**

(PART B: TO BE COMPLETED BY STUDENTS)

***(Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the ERP or emailed to the concerned lab in charge faculties at the end of the practical in case the there is no ERP access available)***

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| --- | --- |
| Roll No.: 63 | Name: Naimish Jagdale |
| Class: BE A | Batch: A3 |
| Date of Experiment: | Date of Submission: |
| Grade: |  |

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| --- | --- |
| **B.1** | **Tools used to develop application:**  Html, CSS, JavaScript, Bootstrap 4, PopperJS , jquery |
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| **B.2** | **Choice of User Interface Elements:**  dropdown lists, list boxes, buttons, toggles, text fields, |
| **B.3** | **What is a Menu? Mention the importance of using menus for a user interface designs** |
|  | A menu is a set of options presented to the user of a computer [application](https://searchsoftwarequality.techtarget.com/definition/application) to help the user find information or execute a program function. Menus are common in graphical user interfaces ( [GUI](https://whatis.techtarget.com/definition/GUI) s) such as [Windows](https://searchwindowsserver.techtarget.com/definition/Windows) or the Mac OS . This type of **interface** lets you interact with a computer or device by working your way through a series of screens or **menus**. User Interface (UI) Design is the link between users and your website. It includes the basic design elements that need to be present in order to for someone to navigate your site and make decisions. |
|  |  |
| **B.4** | **User Interface Designs:**  **(**Add screen snapshots of existing and developed sites.)  Existing site:    developed site: |
|  |  |
| **B.5**  **B.6** | **Compare the Redesinged and existing websites in detail**  Existing site has a large menu which creates confusion among users. And redesigned website provides better and clear view to navigate through the website  **Conclusion:**  Learn to design justifiable menus. |
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