**EXPERIMENT NO: 2**

**Aim:** Design an interface for Home appliances.

**Theory:**

* **Interface Design Goals**

To make an interface easy and pleasant to use, then, the goal in design is to

1. Reduce visual work.
2. Reduce intellectual work.
3. Reduce memory work.
4. Reduce motor work.

Minimize or eliminate any burdens or instructions imposed by technology. The result will always be improved user productivity and increased satisfaction. A simple test for good design does exist. A screen that passes this test will have surmounted the first obstacle to effectiveness. The test is this: Can all screen elements (field captions, data, title, headings, text and information, types of controls, navigation elements, and so on) be identified without reading the words that identify or comprise them? That is, can a component of a screen be identified through cues independent of its content? If this is so, a person’s attention can quickly be drawn to the part of the screen that is relevant at that moment. People look at a screen or page for a particular reason, perhaps to locate a piece of information such as a customer name, to identify the name of the screen, or to find an instructional or error message. The *signal* at that moment is that element of interest on the screen. The *noise* is everything else on the screen. Cues independent of context that differentiate the components of the screen will reduce visual search times and minimize confusion.

* **Organizing Elements Clearly and Meaningfully**

Visual clarity is achieved when the display elements are organized and presented in meaningful, understandable, and recognizable ways. A clear and clean organization makes it easier to recognize a screen’s essential elements and to ignore its secondary information when appropriate. Clarity is influenced by a multitude of factors: consistency in design, a visually pleasing composition, a logical and sequential ordering, and the presentation of the proper amount of information, groupings, and alignment of screen items. What must be avoided is visual clutter created by indistinct elements, random placement, and confusing patterns.

* **Consistency**

People strive for consistency in their attitudes, thoughts, and beliefs. Similarly, consistency is a very important component of design. Found that users commit fewer errors when the visual and linguistic aspects of information sites are consistent. Other studies have found that consistency leads to a reduction in task completion times, an increase in user satisfaction, and a reduction in learning time. Quite simply, consistency greatly aids learning. It establishes expectations, permits a person to employ conceptual learning and transfer training, and enables the user to easily anticipate the location of screen elements of interest. Inconsistency forces one to memorize, and remember, a variety of different ways to do something or interpret what is presented on the screen. Inconsistency makes it difficult for a coherent structure to emerge. It can also be distracting, causing a person to wonder why things are different. Inconsistency also creates a screen variation that makes it difficult to notice another variation that may be important for a person’s task or need.

* **Ordering of data and content**

In ordering applications, units of information and screen elements should be prioritized according to the user’s needs and expectations. People develop expectations on how to accomplish certain tasks and find different types of information. A meaningful organization permits faster learning. In Web site design it is also easier to develop a clear navigation system if the site is meaningfully organized. Clear organization also makes it easier for Web users to find what they need, and to predict where a navigation link will take them.

* **Navigation and flow**

Navigation through a screen or page should be obvious and easy to accomplish. Navigation can be made obvious by grouping and aligning screen controls, and judiciously using line borders to guide the eye. Sequentially, direct a person’s attention to elements in terms of their importance. Using the various display techniques, focus attention on the most important parts of a screen. Always tab through a screen in the logical order of the information displayed, and locate command buttons at the end of the tab order sequence. Guidelines for accomplishing all of these general objectives will be found in subsequent pages. The direction of movement between screen items should be obvious, consistent, and rhythmic. The eye, or pointer, should not be forced or caused to wander long distances about the display seeking the next item.

**Conclusion:**

Explanation of interface design goals with respect to GUI.

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| **Program Execution**  **(7)** | **Documentation**  **(2)** | **Punctuality**  **(2)** | **Viva**  **(4)** | **Experiment**  **Marks**  **(15)** | **Teacher**  **Signature**  **with date** |
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