**HMI - EXP - 7** 

St. Francis Institute of Technology

**Department of Computer Engineering** 

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**Subject: Human Machine Interaction** 

**Experiment No:-7** 

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AIM: Learn the importance of menu and navigation

**I-THEORY:** 

1. Explain graphical menus

A system contains large amounts of information and performs a variety of functions. Regardless

of its purpose, the system must provide some means to tell people about the information it

possesses or the things it can do. This is accomplished by displaying listings of the choices or

alternatives the user has at appropriate points.

These listings of choices are commonly called menus. 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. Graphical and Web systems are heavily menu-oriented. In graphical

systems they are used to designate commands, properties that apply to an object, documents, and

windows.

When selected, a graphical menu item may lead to another menu, cause a window to be

displayed, or directly cause an action to be performed. To accomplish these goals, a graphical

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system presents a variety of menu styles to choose from. Included are entities commonly called menu bars, and menus called pull-downs, popups, cascades, tearoffs, and iconic. In Web site design, common menus include textual links to other pages, command buttons, and both graphical and textual toolbars.

## 2. Types of Navigation Menus

Typical navigation menus come in several varieties. While some of these choices are more common than others, they all have their own specialized purpose, and what may seem unworkable for one site might be the perfect choice for another.

# Horizontal Navigation Bar:

The most common type of menu bar is the horizontal navigation. Users rely on this conventional menu to navigate their way around websites. While your more creative instincts might yearn for something unique, a standard top-oriented horizontal navigation bar is not just expected; the absence of one will normally frustrate your website visitors. These types of navigation setups are useful in responsive designs meant to scale for mobile devices, which means that you can provide a uniform experience to users regardless of device. In addition, their familiar nature means that they work well with advanced designs such as drop down or mega menus.

### Footer Navigation Bar:

Another common menu-type is a bottom-oriented horizontal navigation menu. While this places navigation in a spot where users have to hunt for it, there are a couple cases in which a footer navigation bar is preferred. A bottom-oriented navigation bar is frequently used on landing pages, as they provide navigational guidance without distracting readers from the page's primary value proposition. While some advocate for removing navigation from landing pages altogether for the sake of higher conversions, the practice is controversial from a UX standpoint. Typically, users don't enjoy losing navigation elements they expect to see. Footer navigation bars offer an effective middle ground that preserves landing page integrity without "trapping" readers on your site.

# Vertical Navigation Bar

A vertical navigation menu is a modern option typically seen on mobile layouts. These are usually left-oriented but could be on either side of the screen to fit your website's design. One of the big advantages of a vertical navigation bar is that it is able to accommodate more links than a horizontal navigation bar. Since you can stack text instead of trying to cram it into a horizontal format, you will have more flexibility with the types of categories you include. Keep in mind, however, that vertical navigation menus take up valuable real estate where content would otherwise be. Make sure that a vertical navigation bar fits the aesthetic of your webpage and adds value to the overall design.

#### Responsive Menu Bar

While all menu bar designs should accommodate for mobile devices, there are some options that are designed just for that purpose. One of the most common is a hamburger menu, named for its icon's three horizontal lines that resemble a hamburger. These navigation tools keep the menu hidden until the user hovers over it with the cursor or taps it on a mobile device. From there, the menu can expand and collapse to gives users full navigation options, while taking up a minimum of space. If most of your users are accessing your site from a mobile device, this is an excellent option.

#### II - OBJECTIVE:

• To develop system menus and navigation schemes.

# **III - PROCEDURE :**

- 1. Open the justinmind tool and select the prototype that you want to create(options like desktop, mobile,tablets, etc.)
- 2. Now a blank screen will be visible.
- 3. You can select elements like Headers, Text, Paragraphs, Images, Videos, etc. and start creating your prototype.
- 4. You can add input fields, buttons, tables, links, shapes as well.
- 5. Once you draw a shape, on the right hand side you can edit its configuration in properties page.

- 6. Configuration will contain font size, style, color, Background colors, borders and more.
- 7. Above the configuration in the screens panel you can create multiple screens and then link the panels with buttons or text links.
- 8. Things to keep in mind while designing
  - a. Choosing a proper menu structure suitable for the application
  - b. Proper ordering and grouping of menus
  - c. Use of line separators
  - d. Providing short cuts for menus using keyboard equivalents
  - e. Use of keyboard accelerators
  - f. Choosing appropriate menu titles.
  - g. Use of intent indicators
  - h. Providing defaults
  - i. Use of toggle menus wherever required.

## **IV - TOOL:**

## Name: Justinmind

Justinmind is a prototyping and wireframing tool for the creation of high-fidelity prototypes of web and mobile apps. It's known for its ability to render realistic versions of a finished product as well offering collaboration, interaction and design features. Overall, it's grown into one of the most popular prototyping tools in the industry. Software prototypes and wireframes created with Justinmind can be shared on the cloud and simulated with mobile devices. The prototyping tool also generates HTML for entire prototypes.

### **V - IMPLEMENTATION :**

Using the justinmind tool we will be implementing a Internship management admin portal wherein the data of the students can be analysed and managed.



Figure 5.1: Login Page



Figure 5.2: Registration Page

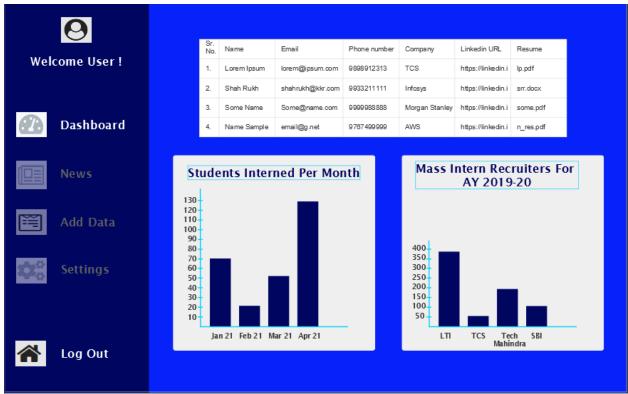


Figure 5.3: Dashboard Page



Figure 5.4: News Page

8	Add Candidate Data		
Welcome User!	Name:	0	
(7) Dashboard	Email : Phone :	User user@gmail.com	
News	Linkedin URL: Company: Job Period:	Upload Resume	
Add Data	From:	Photograph	
Settings	To: Salary:	PAN Card Aadhar Card	
<b>A</b> Log Out			

Figure 5.5: Add Data Page

Welcome User!  Dashboard	Name: <u>User</u> Email: <u>user@gmail.com</u> Phone: <u>9993201234</u>	<b>O</b> User user@gmail.com
News	Address Address Line No. 1 : 123, SomeApartment,	Security Reset
Add Data	Address Line No. 2 : SomeLane, SomeCity.  City: SomeCity	Password Change Email
Settings	State: SomeState  Country: India  Pin Code: 123123	Change Phone Number
<b>A</b> Log Out		

Figure 5.6: Settings Page

## **VI - CONCLUSION :**

From this experiment we learnt about the importance of menus and navigation. A website menu is a series of linked items that serve in navigating between the different pages or sections of a website. Navigation design is the discipline of creating, analyzing and implementing ways for users to navigate through a website or app. Finally obeying the rules of menus and navigation we created an Internship Management system using Justinmind tool.

#### **VII - POST LAB QUESTION ANSWERS:**

1. List down the type of navigation bars :

#### Answer:

- Vertical Navigation Bar
- Horizontal Navigation Bar
- Responsive Navigation Bar
- Footer Navigation Bar

### 2. Explain navigation design in brief.

#### Answer:

Navigation design is the discipline of creating, analyzing and implementing ways for users to navigate through a website or app. Navigation plays an integral role in how users interact with and use your products. It is how your user can get from point A to point B and even point C in the least frustrating way possible.

To make these delightful interactions, designers employ a combination of design patterns including links, labels and other UI elements. These patterns provide relevant information and make interacting with products easier.

### Good navigation design can:

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- Enhance a user's understanding
- Give them confidence using your product
- Provide credibility to a product

# **VIII - REFERENCES :**

- 1. https://en.wikipedia.org/wiki/Justinmind\_(prototyper)
- 2. https://www.justinmind.com/