Session 5

Using Common RWD Patterns in Mobile Designs

Learning Objectives

In this session, you will learn to:

- Define Breakpoints
- Describe Navigation Drawers
- Describe Stacked Pagination
- Explain Fluid Images
- Define Bottom Bar
- Describe Top Bar
- Define Front Action Calls
- Describe Short and Simple Menus

What is Breakpoint?

- Breakpoints are portal widths that have a media query declaration to change the layout once the browser is within the declared range.
- An example that explains the code snippet for page changing from its base 960px layout to 768px:

```
@media only screen and (max-width: 768px){
 /* CSS Styles */
 }
```

- Breakpoints can be placed depending on common screen sizes in a responsive design.
- Every responsive site has a minimum of two breakpoints designed for tablet and mobile devices.

What is Breakpoint?

- There are two types of breakpoints:
  - **Major breakpoints** are conditions when met result in major changes in design. Example: The whole layout changes from two columns to four columns.
  - **Minor breakpoints** are conditions when met result in small changes in design. Example: Moving form labels from above text fields to the left of those fields, while the rest of the design remains unchanged.
- There is no thumb rule on deciding the number of breakpoints in Responsive Web Design. The idea is to ensure that design and content flow seamlessly on any landscape.

Three layouts with 3-columns, 2-columns, and single column layout

Customization of Breakpoints in RWD

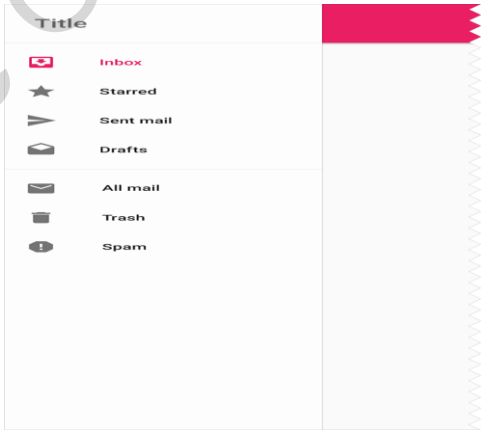
- Creating a custom breakpoint is a very logical process and only requires a familiarity with media queries to create.
- Following rules need to be adhered while creating a custom breakpoint:
  - **Choosing Right Browser Extension**: Resize Window for Chrome is an optimal choice as the current dimensions are shown in the bottom right corner on shrinking the browser.
  - **Explore Between Standard Breakpoints**: Inconsistencies in appearance normally occur between standard breakpoints. Extension such as Resize Window identifies the areas which need correction after looking at every pixel width.

What is a Navigation Drawer?

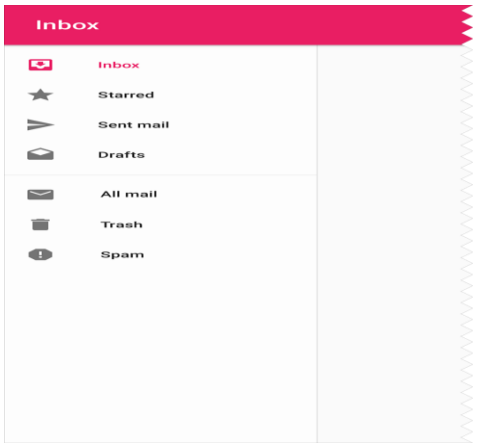
- A Navigation Drawer is used for top-level navigation in an application to swiftly navigate between different parts of the application. It is more like a main menu.
- A Navigation Drawer is required where the user can take multiple paths to navigate which leads to different, independent parts of an application without one dedicated start screen on which everything else depends.
- The Navigation Drawer is required in a user interface that has more than three top-level views and the action bar is too small to be used.
- Drawer design template is almost similar when utilized for iOS and Android, therefore, providing a single design that works flawlessly and enjoys a good level of understanding in both platforms.

Types of Permanent Navigation Drawers

- **Full-height Navigation Drawer**: These are applications focused on information consumption that uses a left-to-right hierarchy.
- **Navigation Drawer Clipped under the Application Bar**: These are applications focused on productivity that requires balance across the screen.



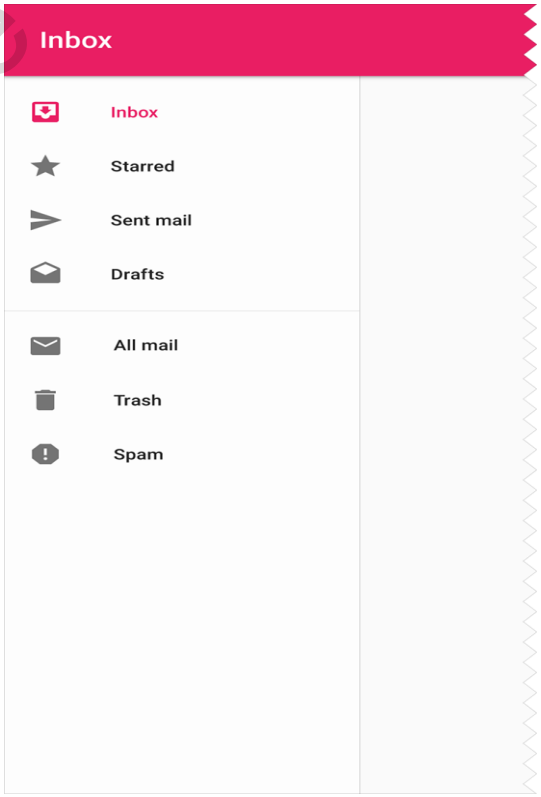
Left-to-Right hierarchy



Clipped Navigation Drawer

Types of Permanent Navigation Drawers

- **Floating Navigation Drawer**: These are applications that require less hierarchy use floating navigation drawer.



Floating Navigation Drawer

Stacked Pagination

- What is Stacking?
  - A Stacking refers to positioning of content elements on top of each other. It is highly effective for small screen where there is an inadequate space to display the content. Stacking results in reducing page width and increasing page length. It is the frequently used responsive action.
- How does Stack work?
  - Responsive frameworks operate space classes to apply a column width to an element. Different widths can be applied depending on the width of the display in a device.
- What is Pagination?
  - Pagination is the process of dividing a document into discrete pages, either electronic pages or printed pages. Pagination comprises rules and algorithms for deciding where page that breaks will fall and which depend partly on cultural applications about which content exist on the same page.

What is Fluid Image?

- Fluid image is a responsive configuration based picture stack. This stack permits the picture to develop and contract in size with the site.
- Fluid image permits the resizing of a picture in relative units instead of outright pixel measurements.

Example of Fluid Image

Creating Fluid Image

- Fluid image is created by quantifying the width of image as a percentage of the overall width of the page.
- Example: A picture with measurements of 500px × 300px in a 1200px wide. Below 1200px, the record will be fluid. The calculation of percentage that the image takes up of the document is easy:

  (500 / 1200) × 100 = 41.66%
- When we create fluid image then the image will consistently remain in scale with the rest of the text.

Fluid Image with % of total width of the page

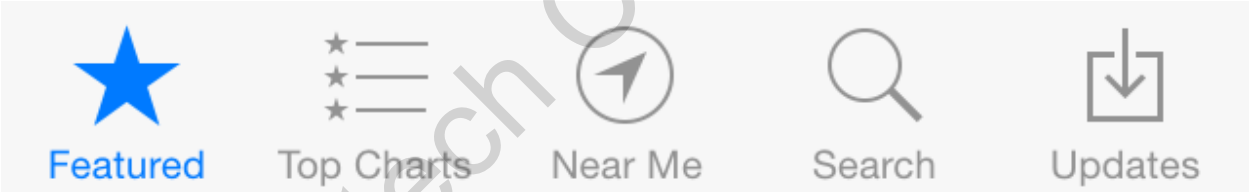
Navigation Menus

Navigation menus are the responsive menus whose treatment and behavior are altered on different devices with different screen widths. Different elements of navigation menu for a Responsive Web Design:

- **Bottom Bar**: It is one of the most delicate parts to be responsified on a Website, which is **'the Navigation'** for the Website accessibility.
- **Tab Bar**: A tab bar is a navigation that provides access to different views in an application.
- **Call to Actions**: It refers to use of elements in a Web page that requires an action from the user. Example: Actionable buttons such as 'Buy' or 'Sell' button.
- **Short and Simple Menu**: They help to craft navigation systems that function flawlessly for small screens and larger screens. Different types of menus are:
  - Slide Down
  - Slide In

What is a Tab Bar?

- A tab bar is a navigation that provides access to different views in an application. It can be used as a standalone object in any application. It allows to:
  - Navigate instantly within an application
  - Understand the application's layout



Tab Bar

Tab Bar in Responsive Web Design

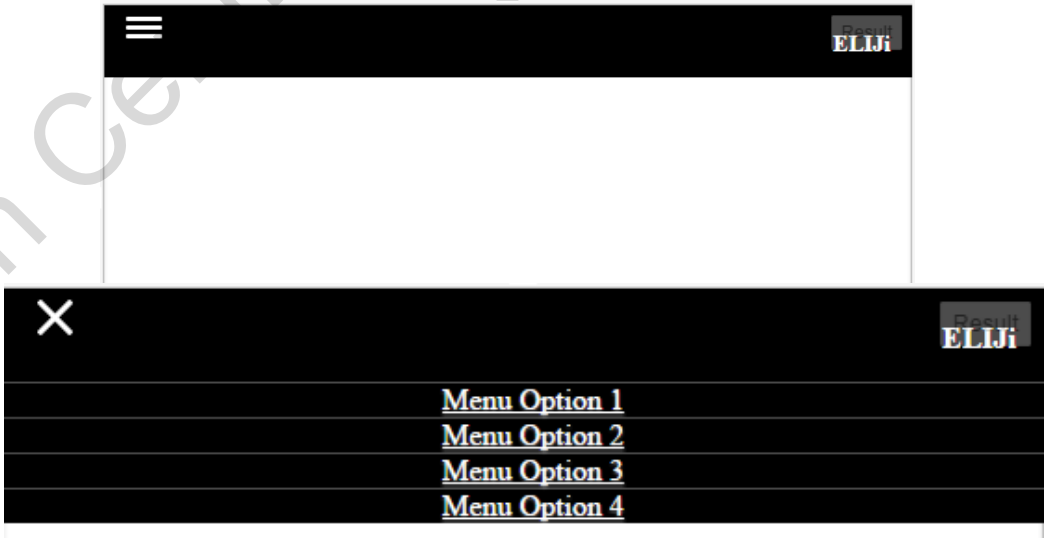
- A tab bar can be used as the main navigation for a site. It provides the user sufficient visibility of the main sections of the site and easy way to identify their location within a Web application.
- The tab bar can be used to quickly control between the segments of a site.
- Tabs offer the user a steady place to go for navigation.

Tab Bar in Responsive Web Design

Slide Down Menu

- Slide Down menu is used to create mobile version of menu. It is an ideal choice if the Website has eight or fewer menu options.
- The basic HTML structure to set up a slide down menu is:

```
<div class="header">
<div class="menuIcon">
<a href="#menuExpand">Menu</a>
</div>
<div class="menu">
<ul>
<li><a href="#">Menu Option 1</a></li>
<li><a href="#">Menu Option 2</a></li>
<li><a href="#">Menu Option 3</a></li>
<li><a href="#">Menu Option 4</a></li>
</ul>
</div>
</div>
```



HTML code for creating Slide Down menu

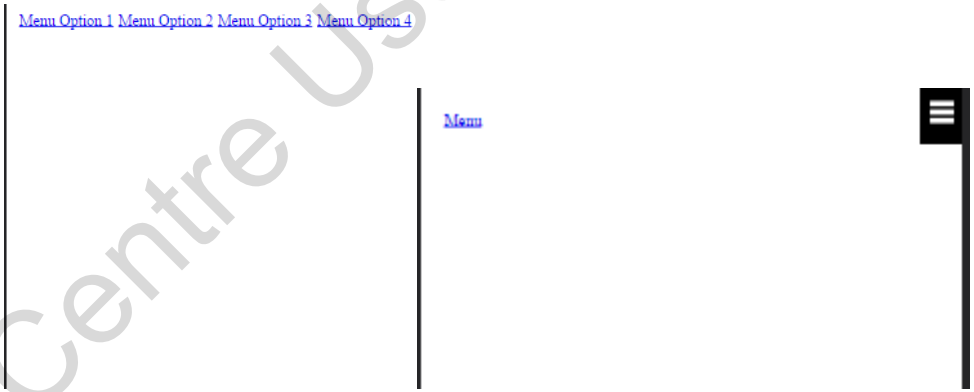
Slide In Menu

- Slide In menu is used to create mobile version of menu. It is used when the Website has a large list of menu options.
- Slide In menu takes a similar approach as Slide Down menu by collapsing into a hamburger menu icon and then takes the screen over by sliding from the side and pushing the body of the Website over.
- The process of developing slide in menu starts with a media query to alter the CSS and jQuery toggle function to add and remove few classes.
- The basic HTML framework that varies for this technique as the mobile menu must be positioned outside of the main Website storage in order to push it to the side.

Slide In Menu

- The HTML framework to build a slide in menu is:

```
<div class="mobileMenu">
<ul>
<li><a href="#">Menu Option 1</a></li>
<li><a href="#">Menu Option 2</a></li>
<li><a href="#">Menu Option 3</a></li>
<li><a href="#">Menu Option 4</a></li>
</ul></div>
<div class="mobileBodyWrapper">
<div class="mobileDimmer"></div>
<header class="header">
<div class="menuIcon">
<a href="#menuExpand">Menu</a>
</div>
<nav class="menu">
<ul>
<li><a href="#">Menu Option 1</a></li>
<li><a href="#">Menu Option 2</a></li>
<li><a href="#">Menu Option 3</a></li>
<li><a href="#">Menu Option 4</a></li>
</ul></nav></header></div
```



HTML code for creating Slide In menu

Summary

- Responsive Web Design involves designing sites to provide an ideal view and interaction experience with ease of navigation across a wide range of devices.
- Breakpoints are browser widths that have a media question presentation to change the format once the program is inside of the pronounced extension.
- Navigation drawer allows swift navigation between different parts of an application.
- Stacking refers to positioning of content elements on top of each other that results in reducing page width and is ideally used for small devices with small screen width.
- Fluid images are crafted to resize the images in proportion to the width of a page.
- Navigation in a Website is responsified to meet the requirement of different devices with diverse screen size.