

Unit 05: Navigation

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Objectives

After studying this unit, you will be able to:

- Understand navigation bas
- Design navigation bar using bootstrap

Introduction

A navigation bar is a particularly important feature because it allows visitors to quickly and easily find important pages on your website, like your blog, product pages, pricing, contact info, and documentation. This improves the chances of visitors browsing your site longer, which can boost your page views and reduce your bounce rate.

One of the most noticeable elements of Bootstrap websites is the navbar. Navbars are responsive "meta" components that act as header navigation for your website or application. When viewed on a mobile device, navbars collapse and turn horizontal as the viewport width expands. The navbar's primary components are style for site names and fundamental navigation.

5.1 Navigability

When using the World Wide Web effectively, the process of checking out and managing resources and information is referred to as "navigability" (WWW) Generally speaking, navigating entails browsing a website or the internet to gather, curate, check out material, and improve usability. A web browser is the platform or user interface utilized for this navigation.

Navigation plays a very crucial role in instructing through and through and also getting the website users to see a much more holistic view of the webpage. The various functions of web navigation allow for a comfortable experience to the user. Navigation shapes the way we look at different things on the web page. It gives curated information about the brand, the value and reflects all the other features as well. Thus, navigation is all about traversing through the nuances and visiting various web pages using a web browser and gaining information that the user finds reliable.

Purpose of navigation.

Without an efficient navigation system, the visitor or the user is unable to find the point of contact and move further on the web page. The purpose of a friendly navigation system is solely to keep the user on your website and make him explore. This can be done by making the website enticing enough for the user to keep exploring with curiosity.

The function of navigation on a website:-

Usability and smooth functioning are the most important purposes of web navigation- usability in terms of user experience and access and smooth functioning all the way.

The use of website navigation tools allows for a glitch-free experience and provides efficiency.

Website navigation is more or less a map of key areas/functions of the website. It's similar to a map of a place where there are multiple places of interest.

5.2 Navigation Bar and Breadcrumbs

Navbar is Bootstrap's responsive navigation header. Here are a few key points you should know about this component:

- Navbars are responsive and fluid by default. Meaning, they expand or contract based on the width of the current viewport.
- Navbars require a wrapping. navbarwith. navbar-expand{-sm|-md|-lg|-xl} classes. These classes determine when content collapses behind a button.
- The <nav> element is a semantic HTML element. Using it ensures accessibility and is preferred over using a more generic element like a <div>.

How it works

Here's what you need to know before getting started with the navbar:

- Navbars require a wrapping. navbarwith. navbar-expand{-sm|-md|-lg|-xl} for responsive collapsing and color scheme classes.
- Navbars and their contents are fluid by default. Use optional containers to limit their horizontal width.
- Use our spacing and flex utility classes for controlling spacing and alignment within navbars.
- Navbars are responsive by default, but you can easily modify them to change that. Responsive behavior depends on our Collapse JavaScript plugin.
- Navbars are hidden by default when printing. Force them to be printed by adding .d-print to the .navbar. See the display utility class.
- Ensure accessibility by using a <nav> element or, if using a more generic element such as a <div>, add a role="navigation" to every navbar to explicitly identify it as a landmark region for users of assistive technologies.

**Example**

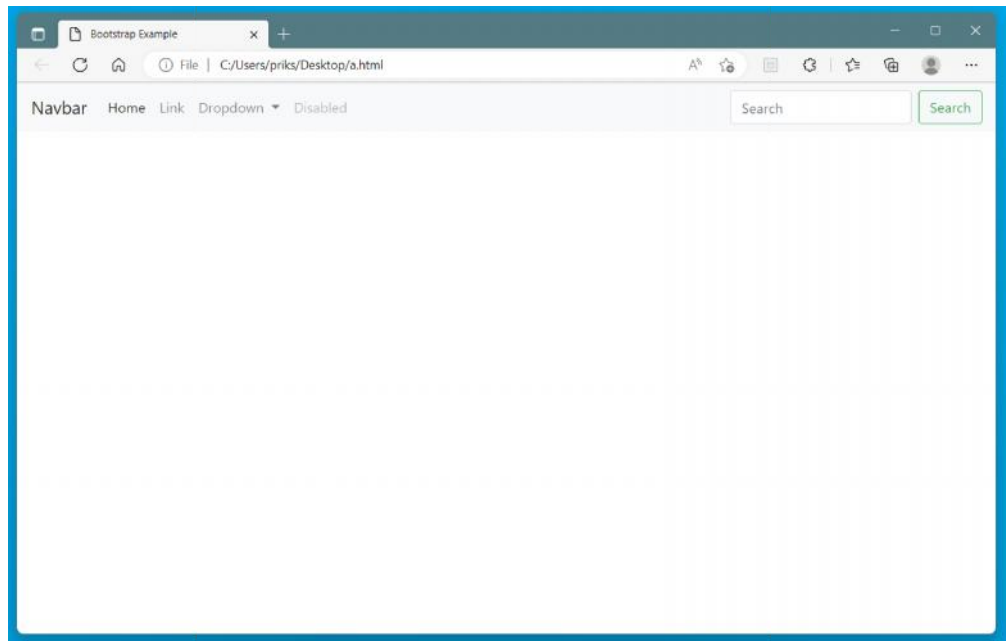
```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/css/bootstrap.min.css">
<script src="https://cdn.jsdelivr.net/npm/jquery@3.6.0/dist/jquery.slim.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></script>
```

```

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav class="navbar navbar-expand-lg navbar-light bg-light">
<a class="navbar-brand" href="#">Navbar</a>
<button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" data-
expanded="false" aria-label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarSupportedContent">
<ul class="navbar-nav mr-auto">
<li class="nav-item active">
<a class="nav-link" href="#">Home <span class="sr-only">(current)</span></a>
</li>
<li class="nav-item">
<a class="nav-link" href="#">Link</a>
</li>
<li class="nav-item dropdown">
<a class="nav-link dropdown-toggle" href="#" role="button" data-toggle="dropdown" aria-
expanded="false">
    Dropdown
</a>
<div class="dropdown-menu">
<a class="dropdown-item" href="#">Action</a>
<a class="dropdown-item" href="#">Another action</a>
<div class="dropdown-divider"></div>
<a class="dropdown-item" href="#">Something else here</a>
</div>
</li>
<li class="nav-item">
<a class="nav-link disabled">Disabled</a>
</li>
</ul>
<form class="form-inline my-2 my-lg-0">
<input class="form-control mr-sm-2" type="search" placeholder="Search" aria-label="Search">
<button class="btn btn-outline-success my-2 my-sm-0" type="submit">Search</button>
</form>
</div>
</nav>
</body>

```

```
</html>
```

Output

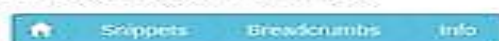
It is used to show hierarchy-based information for a site and indicates current page's location within a navigational hierarchy. Bootstrap uses `breadcrumb` class to define the list into breadcrumb and adds a separator via CSS to the list.

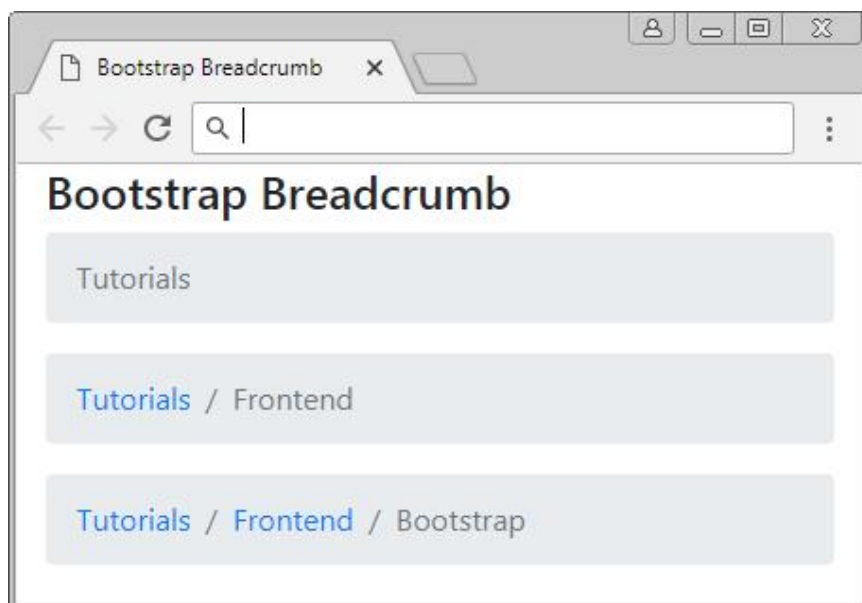


Notes: Breadcrumb - Indicate the current page's location within a navigational hierarchy that automatically adds separators via CSS.



Example: Bootstrap breadcrumb examples -

Breadcrumb Default**Breadcrumb Primary****Breadcrumb Success****Breadcrumb Info****Breadcrumb Warning****Breadcrumb Danger**



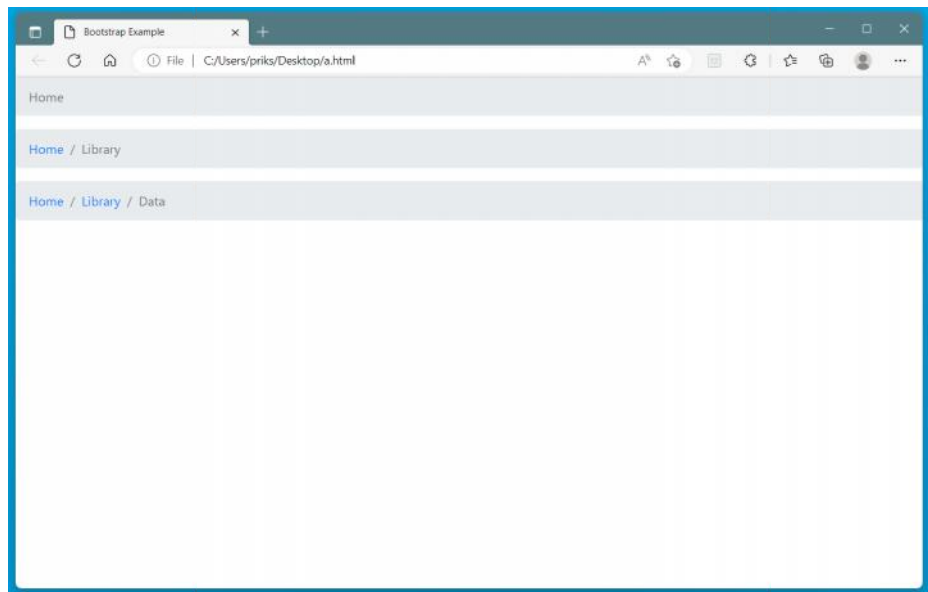
Lab Exercise:

```
<!DOCTYPE html>
<html lang="en">
<head>
<title>Bootstrap Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/css/bootstrap.min.css" rel="stylesheet">
<script src="https://cdn.jsdelivr.net/npm/jquery@3.6.0/dist/jquery.slim.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.1/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<nav aria-label="breadcrumb">
<ol class="breadcrumb">
<li class="breadcrumb-item active" aria-current="page">Home</li>
</ol>
</nav>
```

```
<nav aria-label="breadcrumb">
<ol class="breadcrumb">
<li class="breadcrumb-item"><a href="#">Home</a></li>
<li class="breadcrumb-item active" aria-current="page">Library</li>
</ol>
</nav>

<nav aria-label="breadcrumb">
<ol class="breadcrumb">
<li class="breadcrumb-item"><a href="#">Home</a></li>
<li class="breadcrumb-item"><a href="#">Library</a></li>
<li class="breadcrumb-item active" aria-current="page">Data</li>
</ol>
</nav>
</body>
</html>
```

Output



Summary

- Using Bootstrap 4, you can create a navigation bar.
- A navigation bar is used for containing the navigation interface of a website and is commonly displayed above or on the side of the content.
- Navbars require a wrapping. navbarwith .navbar-expand{-sm|-md|-lg|-xl|-xxl} for responsive collapsing and color scheme classes.
- Navbars and their contents are fluid by default. Change the container to limit their horizontal width in different ways.
- Use our spacing and flex utility classes for controlling spacing and alignment within navbars.

- Navbars are responsive by default, but you can easily modify them to change that. Responsive behavior depends on our Collapse JavaScript plugin.

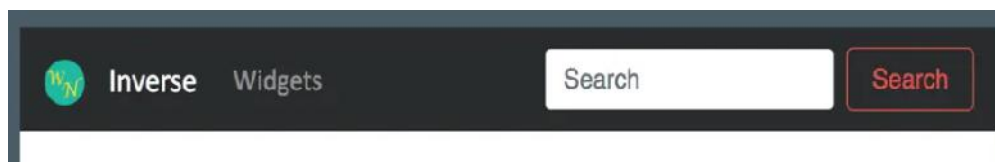
Keywords

Navbar: A navigation bar (or navigation system) is a section of a graphical user interface intended to aid visitors in accessing information. Navigation bars are implemented in file browsers, web browsers and as a design element of some web sites.

Breadcrumb Navigation: Breadcrumbs are a secondary navigation aid that helps users easily understand the relation between their location on a page (like a product page) and higher level pages (a category page, for instance).

SelfAssessment

1. Which of the following bootstrap styles are used to add a dropdown to pills?
 - A. .nav, .nav-tab, .menu
 - B. .nav, .nav-pills, .dropdown-.menu
 - C. .nav, .nav-pills, .dropdown
 - D. .nav, .nav-pills
2. Which of the following bootstrap style is to be used if you want the. navbar fixed to the top of the page?
 - A. .navbar-top
 - B. .navbar-fixed
 - C. .navbar-fixed-top
 - D. None of the above
3. Which of the following is a navbar?
 - A.



B.



C.



D. All of above

4. Website navigation helps people to find the information they want to see very easily and effectively.
 - A. True
 - B. False

5. Good navigation makes the website look more attractive, effective, and good.
- A. True
 - B. False
6. How do we write comments in HTML?
- A. `</.....>`
 - B. `<!.....>`
 - C. `</...../>`
 - D. `<.....!>`
7. Choose the correct syntax for making a breadcrumb using bootstrap.
- A.

```
<nav aria-label="breadcrumb">
  <ol class="breadcrumb">
    <li class="breadcrumb-item active" aria-current="page">Home</li>
  </ol>
</nav>
```
 - B.

```
<ol class="breadcrumb">
  <li class="breadcrumb-item active" aria-current="page">Home</li>
</ol>
```
 - C.

```
<ol class="nav">
  <li>Home</li>
</ol>
```
 - D.

```
<div class="card">
  <div class="card-body">
    HOME
  </div>
</div>
```
8. Which of the following Bootstrap styles is used to create a vertical pills navigation?
- A. `.nav, .nav-tabs`
 - B. `.nav, .nav-pills, .nav-stacked`
 - C. `.nav, .nav-tabs, .nav-justified`
 - D. `.nav, .nav-pills`
9. A standard navigation bar is created using _____.
- A. `<nav class="navbar-black">`
 - B. `<nav class="navbar navbar-default">`
 - C. `<nav class="navbar navbar-inverse">`
 - D. `<nav class="nav navbar">`
10. Which of the following bootstrap style is to be used if you want the .navbar fixed to the top of the page?
- A. `.navbar-top`

- B. .navbar-fixed
 - C. .navbar-fixed-top
 - D. None of the above
11. Which of the following bootstrap style is to be used if you want to create a .navbar that scrolls with the page?
- A. .navbar-static-top
 - B. .navbar-fixed
 - C. .navbar-fixed-top
 - D. None of the above.
12. Which of the following bootstrap style is used to align .nav links, forms, buttons, or text to left or right in a .navbar?
- A. .navbar-align
 - B. .navbar-left, .navbar-right
 - C. .alignment
 - D. None of the above.
13. A standard navigation tab is created with:
- A. <ul class="navigation-tabs">
 - B. <ul class="nav nav-navbar">
 - C. <ul class="nav nav-tabs">
 - D. <ul class="nav tabs">
14. Which class is used to create a black navigation bar?
- A. <nav class="navigationbar navbar-default">
 - B. <nav class="navbar navbar-dark">
 - C. <nav class="navbar navbar-black">
 - D. <nav class="navbar navbar-inverse">
15. Which of the following is the default layout of a bootstrap form?
- A. .inline
 - B. .horizontal
 - C. .vertical
 - D. None of the above.

Answers for SelfAssessment

- | | | | | |
|-------|-------|-------|---------|---------|
| 1. B | 2. C | 3. D | 4. True | 5. True |
| 6. B | 7. A | 8. B | 9. B | 10. C |
| 11. A | 12. B | 13. C | 14. D | 15. C |

Review Questions

1. What is a navbar? How the navbar is useful for the website.
2. Explain the process of creating a navbar using bootstrap.
3. Explain why to choose bootstrap breadcrumb?
4. Differentiate between the bootstrap navbar and the breadcrumb.
5. Write a code that displays the bootstrap navbar in the web browser.



Further Readings

- Bootstrap by Example, Silvio Morato
- Learning Bootstrap 4, Matt Lambert
- Bootstrap in 24 Hours, By Sams
- Jump Start Bootstrap,



Web Links

- <https://getbootstrap.com/docs/4.1/layout/overview/>
- <https://getbootstrap.com/docs/4.1/layout/grid/>