

Lahore Garrison University

DHA Phase 6 Lahore

Lab Task 7



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Section	G
Subject	Web Technologies Lab
Instructor Name	Mr. M Yousaf

Lab 7: Responsive Design with Flexbox & Bootstrap Guide

Task 1:

Convert a Static Layout to a Flexbox Layout

Index.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Flexbox Layout Example</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <header>
    <h1>Website Header</h1>
  </header>
  <div class="main-container">
    <main class="content">
      <h2>Main Content</h2>
      <p>
        This is the main content area. It takes up more space compared
to the sidebar using Flexbox.
      </p>
    </main>
    <aside class="sidebar">
      <h2>Sidebar</h2>
      <p>
        This is the sidebar section, useful for navigation links or
additional information.
      </p>
    </aside>
  </div>
  <footer>
    <p>Website Footer</p>
  </footer>
</body>
```

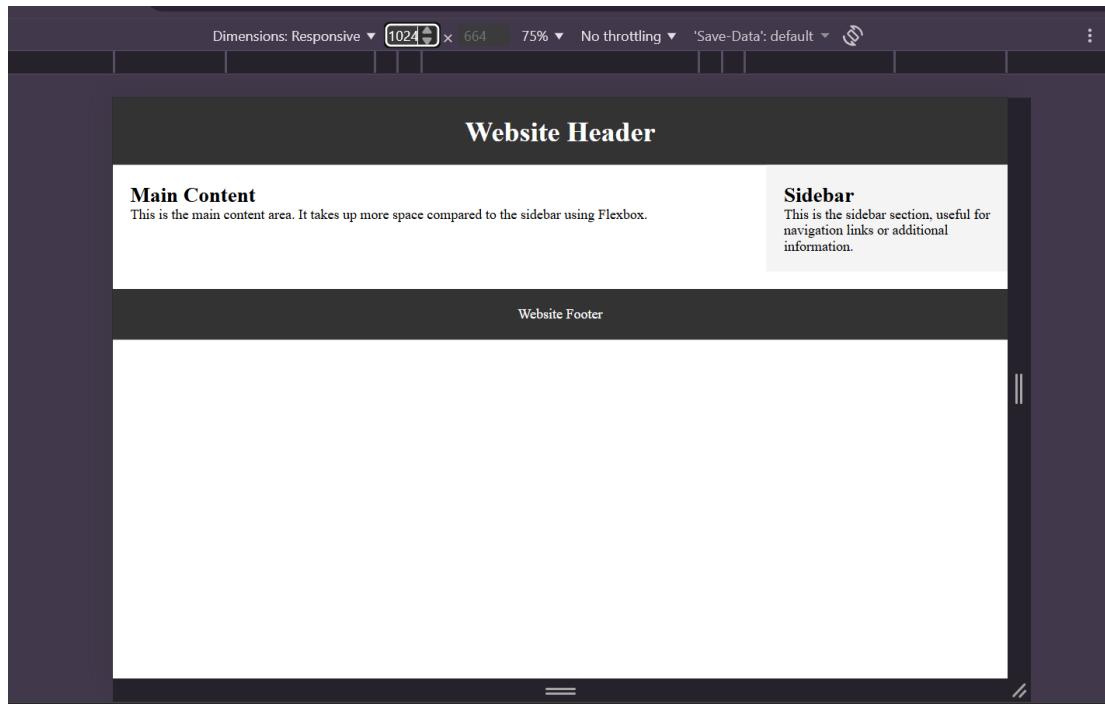
</html>

style.css :

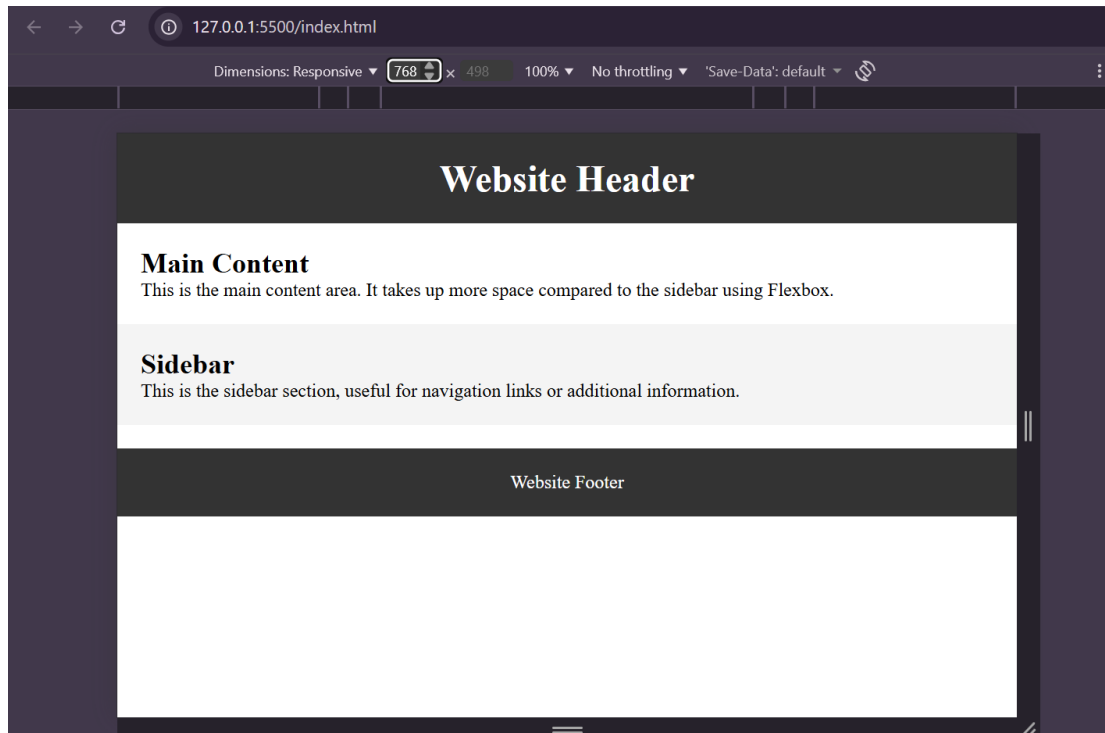
```
* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
}
header, footer {
  background-color: #333;
  color: white;
  text-align: center;
  padding: 20px;
}
.main-container {
  display: flex;
  width: 100%;
  max-width: 1200px;
  margin: 0 auto;
}
.content {
  flex: 3;
  padding: 20px;
}
.sidebar {
  flex: 1;
  padding: 20px;
  background-color: #f4f4f4;
}
footer {
  margin-top: 20px;
}
@media (max-width: 768px) {
  .main-container {
    flex-direction: column;
  }
}
```

Task 2: Add Media Queries to Adjust Layout

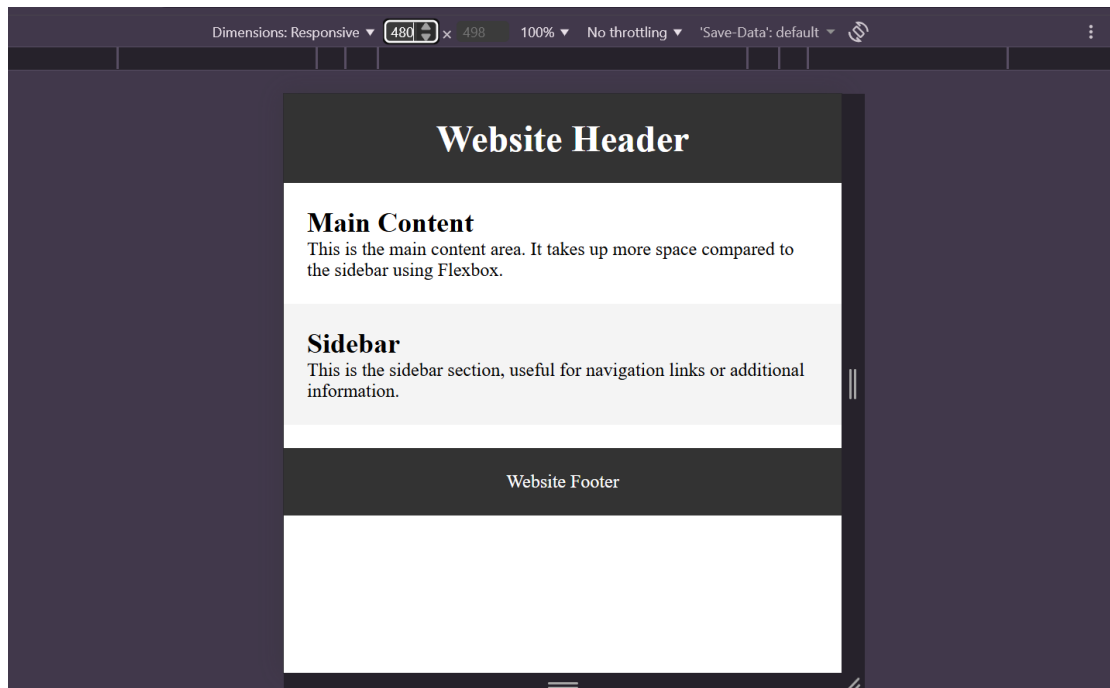
Desktop View:



Tablet View:



Mobile View:



Task 3: Recreate a Component Using Bootstrap Classes

Index.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Flexbox Layout Example</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min
.css"
rel="stylesheet"
integrity="sha384-
QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhj
Y6hW+ALEwIH"
crossorigin="anonymous">
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundl
e.min.js"
integrity="sha384-
YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1
```

```

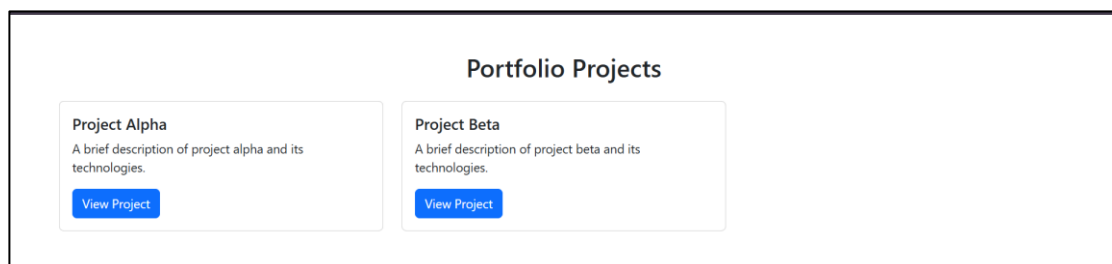
eN7N6jIeHz"
    crossorigin="anonymous"></script>
</head>
<body>
  <section class="container my-5">
    <h2 class="text-center mb-4">Portfolio Projects</h2>

    <div class="row row-cols-1 row-cols-md-3 g-4">

      <div class="col">
        <div class="card h-100">
          <div class="card-body">
            <h5 class="card-title">Project Alpha</h5>
            <p class="card-text">A brief description of project alpha and
its technologies.</p>
            <a href="#" class="btn btn-primary">View Project</a>
          </div>
        </div>
      </div>
      <div class="col">
        <div class="card h-100">
          <div class="card-body">
            <h5 class="card-title">Project Beta</h5>
            <p class="card-text">A brief description of project beta and
its technologies.</p>
            <a href="#" class="btn btn-primary">View Project</a>
          </div>
        </div>
      </div>
    </div>
  </section>
</body>
</html>

```

Output:



CONCLUSION:

In this lab, I created a responsive webpage using Flexbox, Media Queries, and Bootstrap. The layout adjusts correctly for desktop, tablet, and mobile screens. Bootstrap components were used to enhance the design and make the interface more modern.

RUBRICS:

Performance			Lab Report		
Description	Total Marks	Marks Obtained	Description	Total Marks	Marks Obtained
Ability to Conduct practical	5		Structure	5	
Data Analysis & Interpretation	5		Efficiency	5	
Total Marks obtained			Total Marks Obtained		

Instructor Signature _____