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Subject: Web Technology (WT)
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Lab Assignment: 03

Title: Create a website with Bootstrap components: navbar, carousel, cards, and modal dialogs.

Theory:

Objective:

The objective of this project is to **design a responsive website** using Bootstrap and implement key UI components such as the navbar, carousel, cards, and modal dialogs. A major focus is on **Responsive Web Design (RWD)**, which ensures that websites function and look good on devices of all sizes.

1. Bootstrap Framework

- **Bootstrap** is a front-end CSS framework that provides pre-designed components and a responsive grid system.
- It allows rapid development of professional-looking websites without writing much custom CSS.
- Bootstrap uses a **mobile-first approach**, meaning designs are optimized for mobile devices by default and scale up for larger screens.

2. Navbar

- A navigation bar (navbar) helps users access different parts of a website.
- In Bootstrap, it becomes collapsible (hamburger menu) on smaller screens automatically, using responsive classes.

3. Carousel

- A carousel displays a slideshow of images or content.

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- Bootstrap's carousel is touch-friendly, responsive, and allows sliding animations with minimal configuration.

4. Cards

- **Cards are flexible content containers that hold text, images, and actions like buttons.**
- **They are useful for showcasing projects, products, or blog posts in a visually appealing way**

5. Modal Dialogs

- A modal is a popup element that appears over the main content.
- It is used for displaying additional information, forms, alerts, or confirmations without navigating to a new page.

Media Queries

Media queries in CSS allow applying styles conditionally:

```
@media (max-width: 768px) {  
  
  body {  font-  
  
  size: 14px;  
  
  }  
  
}
```

Device Type	Width Range
Mobile (Portrait)	≤ 576px
Tablet	577px–768px
Laptop	769px–992px
Desktop	≥ 993px

Conclusion:

By using Bootstrap's components and grid system, along with media queries, we can:

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- Build modern, responsive websites faster.
- Deliver a consistent experience across devices.
- Reduce the need for complex custom CSS.

This approach makes the site user-friendly, scalable, and visually appealing—meeting modern web development standards effectively.

