**Bootstrap Theory**

**1)What is Bootstrap , and why it is used for website design ?**

Bootstrap is a popular front-end open-source framework for building responsive and mobile-first websites and web applications.

* **The reason for using bootstrap are as below**

It Provides pre-made CSS and JS components, so developers don’t need to start from scratch.

It provides Standardized design elements keep the website appearance consistent.

It provides Simple classes and components which helps beginners to build professional-looking websites easily.

**2) Explain the Bootstrap grid system and how it helps create responsive layouts.**

The Bootstrap Grid System is a flexible and powerful way to create page layouts using a series of rows and columns.

* **How It Helps Create Responsive Layouts:**

1. **Automatic Stacking:**

On smaller screens, columns automatically stack vertically, improving readability.

1. **Customizable Behavior:**

You can specify different column widths for different screen sizes:

Class Applies At Example

.col Always flexible Equal width columns

.col-sm-6 Small (≥576px) Half-width on small devices

.col-md-4 Medium (≥768px) One-third width on medium+ devices

.col-lg-3 Large (≥992px) Quarter-width on large screens

**3. List and explain at least three Bootstrap components (e.g., navbar, cards, buttons).**

1. **Navbar (Navigation Bar)**

A responsive, flexible navigation header that contains links, brand logo, dropdowns, and toggles.

Provides easy navigation across different sections of the website and adapts automatically for smaller screens.

1. **Card Component**

A flexible container for displaying content like images, text, buttons, and more, in a structured box format.

1. **Button Component**

Styled clickable elements that perform actions like submitting forms or navigating pages.

It Provides consistent styling and behavior across browsers.

* **Button Types:**

Class Purpose

.btn-primary Main action button

.btn-secondary Less important action

.btn-success Positive action (e.g., success message)

.btn-danger For destructive actions (e.g., delete)