Learning Consolidation
Develop a Responsive Web Page Using Bootstrap

In this sprint, you learned to:

- Describe Bootstrap framework

- Develop responsive web pages using mobile-first approach

- Apply Bootstrap's mobile-first flexbox grid to build layouts

- Create responsive images, tables and forms using Bootstrap

- Utilize various Bootstrap components

- Apply Bootstrap utilities

What Is Bootstrap?

- Bootstrap is an open-source framework used for faster and easier web development.

- It is the world's most popular CSS framework created for building responsive, mobile-first websites and applications.

- It includes HTML and CSS-based design templates for typography, forms, buttons, tables, navbars, modals, image carousels, optional JavaScript plugins, etc.

- Bootstrap supports the latest, stable releases for all major browsers and platforms.

- It also gives you the ability to easily create responsive designs.

Responsive Web Design Example

Bootstrap Grid System

- Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content.

- It uses a 12-column system with six responsive tiers.

- It's built with flexbox and is fully responsive. The columns, depending on the screen size, re-arrange automatically.
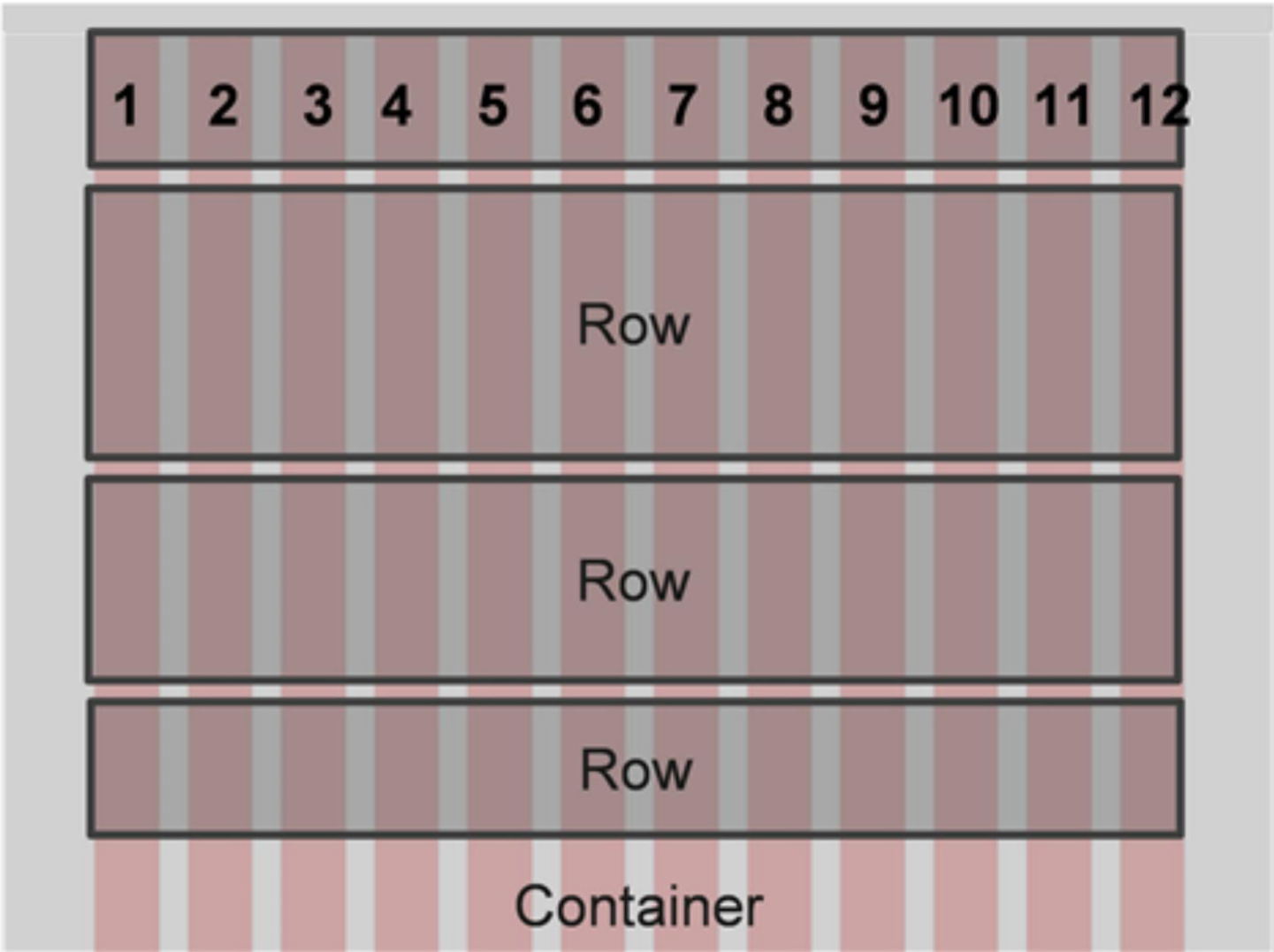
Bootstrap Grid System Example

Source:07Planning

Grid System Breakpoints

Bootstrap's grid system can adapt across all six default breakpoints and any breakpoint you customize. The six default grid tiers are:

- Extra small (xs) : Small Phones

- Small (sm) : Medium Phones

- Medium (md) : Tablets

- Large (lg) : Laptop

- Extra-large (xl) : Desktop

- Extra extra large (xxl) : Large Desktop

Bootstrap Forms

- The <form> HTML element represents a document section containing interactive controls for submitting information.

- It is used to collect user input which is most often sent to a server for processing.

- Bootstrap supports the following form controls:
    - input
    - textarea
    - checkbox
    - radio
    - select

Bootstrap Components

- Bootstrap provides a variety of components that can be customized and reused to provide a good user experience and user interactions.

- Few of them are listed below:

  - Jumbotron
  - Alerts
  - Buttons
  - Button Group
  - Badge
  - Progress Bar
  - List Group
  - Card
  - Carousel

  - Nav
  - Navbar
  - Breadcrumbs
  - Toast
  - Tooltip
  - Drop down
  - Collapse
  - Pagination
  - Spinner

Bootstrap Utilities

- Bootstrap provides various helper/utility classes for specifying the following properties:

  - Background

  - Borders

  - Colors

  - Display

  - Flex

  - Position

  - Shadows

  - Sizing

  - Spacing

  - Text

Self-Check

What happens when a Bootstrap CDN is used?

A. The connection slows down

B. The loading time gets reduced

C. Extra http connection is made

D. None of these

Self-Check: Solution

What happens when a Bootstrap CDN is used?

A.   The connection slows down

B.   **The loading time gets reduced**

C.   Extra http connection is made

D.   None of these

Explanation:

Users would have already downloaded Bootstrap from jsDelivr when visiting another site. As a result, it's loaded from the cache, leading to a faster load time.

Self-Check

Glyphicons are used for _____.

A. using different icons like badges

B. using animations

C. using favicons

D. using slideshows

Self-Check: Solution

Glyphicons are used for _____.

A. **using different icons like badges**

B. using animations

C. using favicons

D. using slideshows

Explanation:

Option B is wrong because Glyphicons are static icons and are not used for animations.
Option C is wrong since favicons are visible alongside the title.
Option D is wrong since the carousel is used for slideshows.