SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER APPLICATIONS
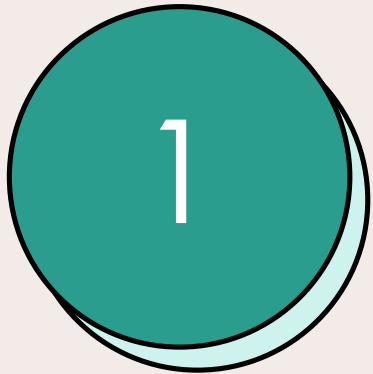
23CAT607- CROSS-PLATFORM APP DEVELOPMENT

I YEAR II SEM

UNIT 1 – INTRODUCTION WEB DESIGN

TOPIC 1 – RESPONSIVE WEB DESIGN

Agenda

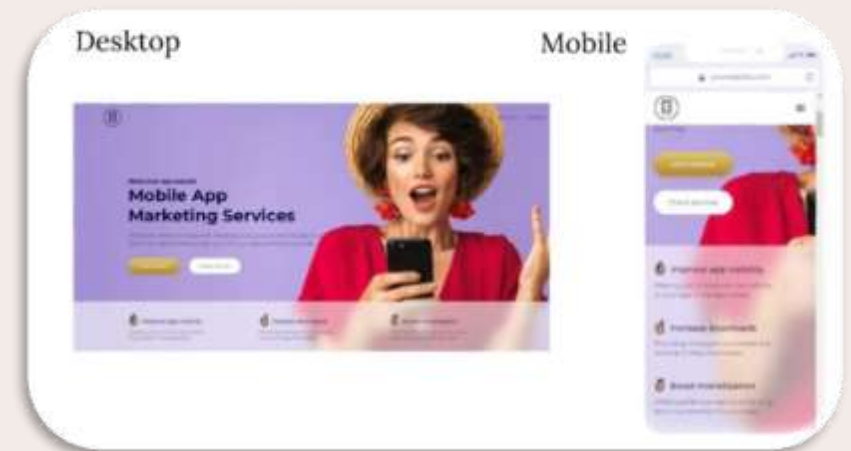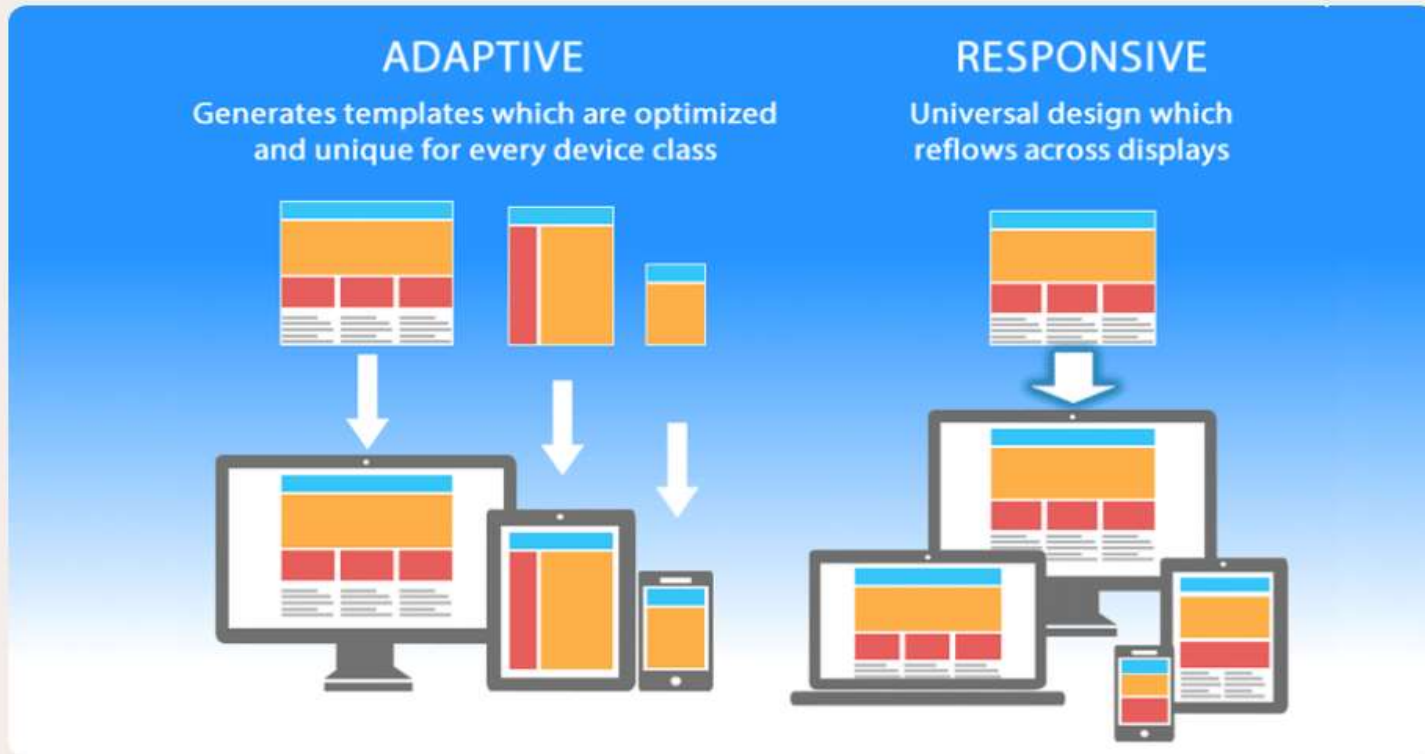|				
1	**2**	**3**	**4**	**5**
Introduction	Difference b/w responsive & Adoptive	Why Responsive web page	Importance	Summary

What is Responsive Web

- ✓ Responsive web design uses code that automatically adjusts the design to different screens based on their sizes and resolutions.
- ✓ It's what allows users to have a smooth experience of a web page regardless of whether they're viewing it on a wide desktop monitor or small mobile screen.

Responsive web design/23CAT607-CROSS PLATFORM APP DEVELOPMENT/Haripriya R/MCA/SNSCT

Responsive Web Design vs Adaptive Web Design

ADAPTIVE
Generates templates which are optimized and unique for every device class

RESPONSIVE
Universal design which reflows across displays

- ✓ Responsive design adapts the rendering of a single page version.

- ✓ Adaptive design delivers multiple completely different versions of the same page.

RWD vs AWD

Responsive web design	Adaptive web design
Dynamically changes a site's page layout based on a device's display type, width, height, etc.	Detects the screen size and loads the appropriate layout for it
Uses CSS media queries to change styles	Uses static layouts based on breakpoints that don't respond once they're loaded
A designer creates one flexible layout that changes according to device.	Requires creating a different layout for every device, for example, separate web and mobile versions
Works best for larger sites that are being designed for the first time	Works best for smaller sites that need to be redesigned or refreshed

Responsive webdesign/23CAT607-CROSS PLATFORM APP DEVELOPMENT/Haripriya R/MCA/SNSCT

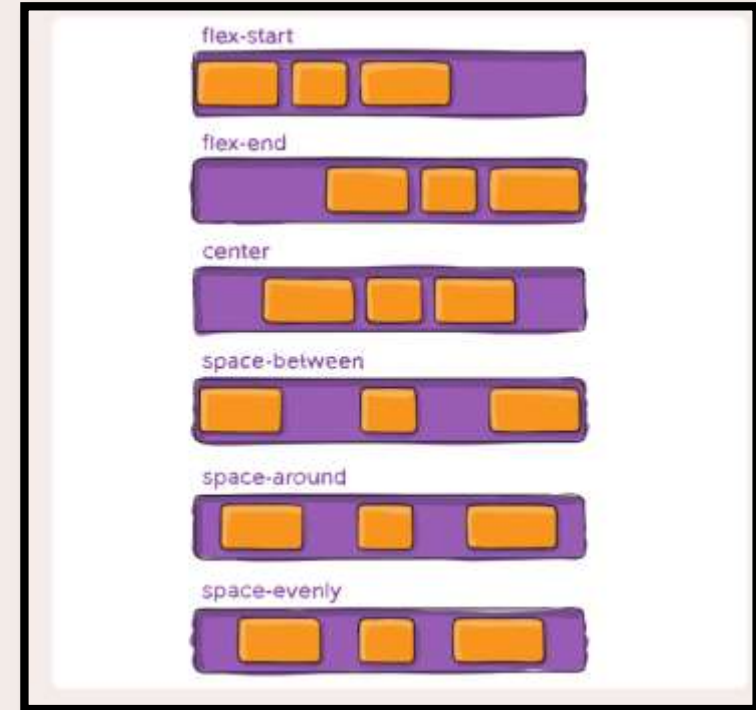# The Building Blocks of Responsive Web Design

CSS and HTML
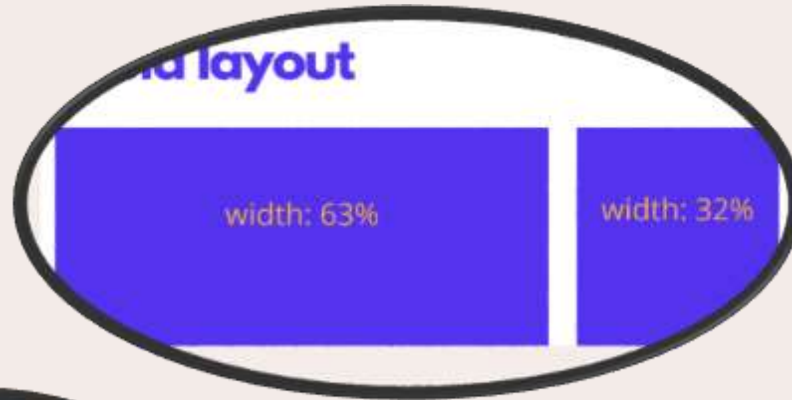
Fluid Layouts

Media Queries

Flexbox Layout

Speed
- ✓ When you're attempting to create a responsive design for your website, the loading speed should be a top priority.
- ✓ Pages that load in 2 seconds have an average 9% bounce rate, while pages that take 5 seconds lead to a 38% bounce rate.

Common Responsive Breakpoints

The "responsive breakpoints" or screen size breakpoints. A breakpoint is the width of the screen where you use a media query to implement new CSS styles.

Common screen sizes
- Mobile: 360 x 640
- Mobile: 375 x 667
- Mobile: 360 x 720
- iPhone X: 375 x 812
- Pixel 2: 411 x 731
- Tablet: 768 x 1024
- Laptop: 1366 x 768
- High-res laptop or desktop: 1920 x 1080

MOBILE FIRST

@media (min-width:...) { ... }
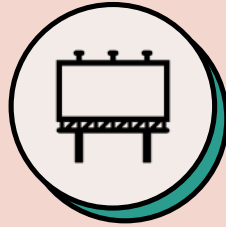
Mobile First ·········▶········· Desktop last

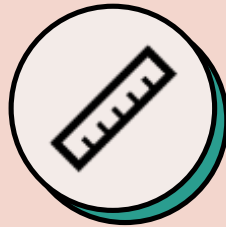– Mobile-first design (Image source: silocreativo.com)
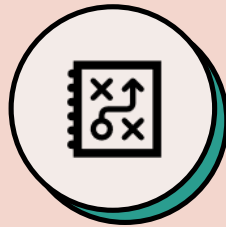
Responsive design is important because it

- Makes your site mobile-friendly

- Improves the way it looks on devices with both large and small screens

- Increases the amount of time that visitors spend on your site

- Helps you improve your rankings in search engines
  Offers better UX

- Improves conversion rates, Makes SEO easier
  Ensures the longevity of your website

Importance of RWD

Better SEO

Responsive web design is improved search engine rankings

Faster Website Loading Times

websites that take more than three seconds to finish loading content

Improved User Experience
website design makes your visitors have a positive experience

Higher Conversion Rates

A good user experience is the key to a higher conversion rate.

Increase in Traffic
79 percent of all global web traffic comes from mobile devices

MCQ

Which of the following is not included in the framework?

- ✓ font sizes
- ✓ CSS reset
- ✓ button styles
- ✓ forms

❖ If we use the framework it can save a lot of time. Framework generally includes a width of the grid, button styles, CSS reset and many more other aspects to build a website

How many columns are used for grid system by bootstrap?

- ✓ 14
- ✓ 11
- ✓ 16
- ✓ 12

❖ Bootstrap uses 12 columns of the grid system. Every column is defined with classes ranging from span1 to span12. After adding several columns, the sum of our span classes should be equal to 12. Columns should be wrapped within <div> element.

EXAMPLES

Online Newspaper:
New York Times

Video Site: YouTube

Online Magazine:
Wired

Responsive webdesign/23CAT607-CROSS PLATFORM APP DEVELOPMENT/Haripriya R/MCA/SNSCT

Thank you

REFERENCE:

- ✓ The Beginner's Guide to Responsive Web Design in 2024 (kinsta.com)
- ✓ importance of responsive web design - Search (bing.com)

Responsive Design