# RESPONSIVE DESIGN





Responsive design means that a web page can automatically stretch or shrink depending on the screen is displayed on

Responsive design is a set of three practices that allows a website to automatically change its visuals

- flexible grids,
- fluid images
- media queries.

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## Flexible Grids

- flexible grids are made up of columns, gutters and margins.
- The space between the columns is called the gutter.
- The spaces between the content and the left and right edges of the screen are called margins.
- Instead of defining website Element sizes based on pixels, flexible grids are defined in percentage values, allowing them to adjust depending on screen size



# Fluid Images

- fluid images by setting the CSS max width property of images to 100%.
- The images will scale down smaller if they're containing column becomes
- narrower than the images size but never grow larger.
- This enables an image to scale down to fit in a flexibly sized column rather than overflow it but not grow larger and become pixelated if the column becomes wider than the image.



## **Media Queries**

- media queries that are part of CSS.
- They allow developers to query the display size orientation and aspect ratio to conditionally apply CSS rules

Remember that I said responsive design is the combination of flexible grids, fluid images and media queries .When these elements are used together, you build a website that will automatically adjust its layout based on the device





#### **BreakPoint**

- The pixel value specified is often referred to as the breakpoint.
- A breakpoint is the point at which a website's content and layout will adapt to provide the best possible user experience.

A Breakpoint can function in different ways across three different grids

- A fixed grid
- fluid or for with grids
- hybrid grids



## A Fixed Grid

- a fixed grid has fixed with columns and flexible margins.
- The fixed grid has a fixed content with that doesn't change in a specific
- breakpoint range while the flexible margins occupy the remaining space on screen.

## Fluid or full width grids

- Then we have fluid or full width grids with fluid with columns and fixed gutters and side margins.
- The fluid grid has a flexible content with that goes edge to edge as per the screen size.
- In a fluid grid, columns either grow or shrink to adapt to the available space



## **Hybrid Grids**

- hybrid grids that have both fluid width and fixed with components.
- Many responsive design frameworks provide multiple CSS rules based on different device sizes to provide the best visual experience.