Q1. What is Bootstrap, Advatages of Bootstrap?

Ans: Bootstrap is a CSS framework developed by twitter. CSS framework means in which number of functionalities already given, such as menu,dropdown,carousel,cards,grid system etc lot of common functionalities already given in CSS framework that's why we should use Bootstrap.

Advantages of Bootstrap:

It saves our time.

It saves line of codes.

By using this we can design website easily.

It makes website device friendly, means responsive website.

Q2. CSS frameworks?

Ans: There are following CSS frameworks:

- Bootstrap
- Foundation
- W3
- Skeleton
- Bulma
- Tailwind

Q3. What is Grid System in Bootstrap?

Ans: Grid System is made up of 12 columns, it is used like col-lg-4 with the row class as parent. We have to first create row and then we can create columns.

Grid system has the following classes for different sizes:

- **xl:** xtra large device such as >1366px resolution.
- **lg:** large device such as desktop , laptop which has 1366px resolution or between 1200 to 1366px
- **md:** medium device such as ipad,tablet etc.
- **sm:** small device such as mobile horizontal view.
- **xs:** xtra small device such as mobile vertical view.

Q4. Bootstrap5 Features?

Ans: Bootstrap5 has the following features:

- It has removed **jquery** and added **vanilla js** for better performance.
- It has added 1 extra grid **xxl**, after adding **xxl** we can manage our design on ipad pro easily.
- It has added number of colors.
- It has added svg icons.
- In this we can add custom utilities.
- It has removed jumbotron.
- It has added vertical spacing.

Q5. Difference between Bootstrap4 and Bootstrap5?

Topics	Bootstrap4	Bootstrap5
Grid System	It has 5 grid system classes (xl,lg,md,sm,xs). **xl:** xtra large screen >1366px resolution. **lg:** large device such as desktop,laptop <1366px resolution. **md:** medium device such as a tablet,iPad. **sm:** small device is used for mobile horizontal view. **xs:** xtra small device is used for mobile vertical view.	It has 6 grid system classes (xxl, xl,lg,md,sm,xs). **xxl:** xx large screen >1400px resolution. **xl:** xtra large device such as desktop, laptop >1200px resolution. **lg:** large device now it is used for ipad pro screen. Screen >992px and less than <1200px **md:** medium device such as a tablet,iPad. **sm:** small device is used for mobile horizontal view. **xs:** xtra small device is used for mobile vertical view.

jQuery	It depends on the jquery file to run the bootstrap.js file.	Now it introduces Vanilla JS for better performance
Color	It has limited colors.	It added some new colors to enhance the website look.
Icons	To use icons on the website, we have to use Font Awesome in bootstrap4.	Now it has owns SVG Icons.
Utilities	We can use bootstrap utilities but could not modify them.	In Bootstrap5 we can modify bootstrap utilities and we can also create our own utilities.
Vertical Spacing	It does no have any class for vertical spacing.	It has vertical spacing classes.
Jumbotron	It supports	It does not support.

Q6. Display Classes in Bootstrap?

Ans: Display Classes in Bootstrap is used to hide or show an element according to device size. It is very helpful when we manage our website design on ipad or mobile size.

Display class has the following classes:

Class	Description
.d-none	This class is used to hide elements on all devices.
.d-none .d-sm-block	Hidden only on Xtra small device and show on small and above devices.
.d-sm-none .d-md-block	Hidden only on small devices and shown on the medium device and above devices.
.d-md-none .d-lg-block	Hidden only on the medium device.
.d-lg-none .d-xl-block	Hidden only on large devices.

Class	Description
.d-xl-none	Hidden only on the extra-large devices.
.d-block	Display block on all devices.
.d-block .d-sm-none	Visible only on Xtra small device.
.d-none .d-sm-block .d-md-none	Visible only on a small device.
.d-none .d-md-block .d-lg-none	Visible only on medium devices.
.d-none .d-lg-block .d-xl-none	Visible only on large devices.
.d-none .d-xl-block	Visible only on extra-large devices.

Q7. Bootstrap Modal?

Ans: Bootstrap Modal box is like a pop up , it is mostly used to show some offers in modal box or it is used for enquiry purpose, we can add form in this.

It can be used on button click or on page load.

Q8. Bootstrap Card?

Ans: Bootstrap Card is used to make a box in which image, heading, paragraph and buttons exists. It is mostly used in a website.

Q9. Bootstrap Spacing Classes?

Ans: Bootstrap provides spacing classes to give space in a design. Bootstrap has the following properties for spacing:

m: stands for margin.

p: stands for padding.

Directions:

- **t:** is used for top margin/padding.
- **b:** is used for bottom margin/padding.
- **l:** is used for left margin/padding. In bootstrap5 we use **(s)** for left margin/padding.
- **r:** is used for right margin/padding. In bootstrap5 we use **(e)** for right margin/padding.
- **x:** is used for left and right margin/padding.
- **y:** is used for top and bottom margin/padding.

Size:

- **0:** 0px sets to margin/padding.

- **1:** 4px or .25rem (if font size is 16px) sets to margin/padding.

- **2:** 8px or .25rem (if font size is 16px) sets to margin/padding.

- **3:** 16px or .25rem (if font size is 16px) sets to margin/padding.

- **4:** 24px or .25rem (if font size is 16px) sets to margin/padding.

- **5:** 48px or .25rem (if font size is 16px) sets to margin/padding.

Example:

<div class="py-5"></div>

<div class="mt-4"></div>

<div class="mx-4"></div>

Q10. Media Object in Bootstrap?

Ans: Media object in bootstrap is used to design a comment system.

Q11. Alerts in Bootstrap?

Ans: Alerts in bootstrap is used to display alerts on a website or web applications. It is mostly used in web applications to show alerts when the user adds update, or delete data.

Q12. Collapse in Bootstrap?

Ans: Collapse in bootstrap is used when the user want to open a div on button click like accordion, mobile menu button.

Q13. Flex Classes in Bootstrap?

Ans: There are number of classes available for fle in bootstrap but here are the most common following:

- **d-flex:** stands for display flex
- **justify-content-center:** It is used to center align an element.
- **justify-content-start:** It is used to left align an element.
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- **justify-content-end:** It is used to right align an element.
- **justify-content-between:** It is used to give space between elements. It does not give space to a first box from left, and does not give a space to last box form right.
- **justify-content-around:** It is used to give equal space form right and left to all the elements .
- **align-items-center:** It is used to center align an element.
- **align-items-start:** It is used to top align an element.
- **align-items-end:** It is used to bottom align an element.
- **align-items-between:** It is used to give space between elements. It does not give space to a first row from top, and does not give a space to last row form bottom.
- **align-items-around:** It is used to give equal space form top and bottom to all the elements .

Q14. Tab panel or Dynamic Pills in Bootstrap?

Ans: Tab panel or dynamic pills is very useful when you want to show more data effectively without disturbing a whole design.

In a tab panel we click on button/any element to show some data after click.

Q15. Popover in Bootstrap?

Popover in bootstrap is used like tooltip; It is used when you want to show some data on mouse click of element.

Q16. Which class is used to style input in bootstrap?

(form-control) class is used to style input in bootstrap.

Q17. Table responsive class in Bootstrap?

(.table-responsive) class is used on the parent of table element to make table responsive, it adds a horizontal scroll in the table.

Important Topics in Bootstrap

- 1. grid, grid on all devices, nested grid
- 2. navbar
- 3. carousel
- 4. form
- 5. colors,typography,tables
- 6. images
- 7. buttons
- 8. spacing classes
- 9. display classes
- 10. media query
- 11. cards
- 12. collapse
- 13. modal
- 14. flex