**Week 9: Research**

Completion requirements

**To do:**Receive a grade **To do:**Receive a passing grade

**Prompts**

1. Name 5 different Bootstrap components and describe how they work.  
  
2. How does the Bootstrap grid system work?

3. What is a highlight of what you have learned this week?

**Instructions**

As developers, research is a constant part of our job. A common saying is that 90% of software development is Googling, and while that is an exaggeration, Google is a highly used tool in the role.

This Research assignment is meant to go beyond the course curriculum and increase your understanding of relevant topics while exposing you to online resources you'll frequently use on the job.

Please write a paragraph for **two (2)**of the above prompts and include URLs from where you found the information to cite your sources. Do not copy and paste text from the internet or any other source; use the information you find in your research, summarize, in your own words, the concepts. Plagiarism will result in a zero for the assignment as well as disciplinary actions.

**This assignment is graded based on participation.**

1. Name 5 different Bootstrap components and describe how they work.

Five different examples of Bootstrap components are Navbar, Card, Media Object, Button, and Badge. Navbar works by creating a navigation element in your website. This navigation element can be any div or html tag that you wish as long as you declare that element with the class .navbar. It has an ‘active’ link in your navigation which has different font style or color, indicating that it is the current active page in your navigation bar. The navigation bar can contain many features like drop down menus, disabled links, and a company brand inside the navigation bar. Cards work as containers for an image, a title and a button. All these elements together create a card. A card can be a description of a link or an example of information you are trying to portray. This can be useful when you are trying to compare two different things and you use cards to display each different or similarity between them. The image will go on the top of the card element, not padding, beneath the image will be a heading, and beneath the heading will be the card body. Finally the button is displayed after the card body which contains information about your card. The button will probably be a link to go somewhere or you can make the button do whatever you want it to do. A Media object is similar to a card. But it is contained horizontally instead of vertically. The media object contains one image and one heading and one media object body. It is the same concept but it is for repeating components. Meaning it can be used for maybe displaying comments on a blog post. It has a picture, the heading can be the username, and the body can be the comment. The button component is a simple button. But bootstrap has made it have more interactive properties. The button can be whatever color you want and it will have a hover affect. The button can have different sizes and different colors. It can have background color or just outline color. It is very versatile. Finally, the badge component is very small. A badge is like a little notification that displays more information about the component. It can be a count of how many new messages that are unread, or It can display information about weather something is unread or new. These have been 5 Bootstrap components and how they work.

url: [Bootstrap documentation](https://getbootstrap.com/docs/4.4/getting-started/introduction/)

2. How does the Bootstrap grid system work?

The boostrap grid system works by having containers that will have the content that will be the grid system. The grid system will not work without the container class in the parent element. Each container must contain a row, and inside the row is where the grid system takes place mostly. Each row can contain max, 12 columns. You can indicate the value of a column by declaring the class, col-12 or whatever number you want that div to take. The grid system also has breakpoints which will indicate the width of the divs. There is 4 breakpoints. Sm, md, lg, xl. Each breakpoint is different and will resize each div col to their corresponding property. For example, if I have 3 columns with breakpoint sm, and each column is 4, then it will be responsive in all breakpoints because anything bigger than small viewport it will divide each column evenly in the row, once it is smaller than the small breakpoint, the columns will start to stack on eachother. The grid system works perfectly for a responsive website. I really enjoyed using it.

url: [bootstrap documentation](https://getbootstrap.com/docs/4.4/layout/grid/)