**START PRESENTATION**

Hi. My name is Arun and I’m doing my presentation on web development. I also wanted to apologize ahead of time. I’m presenting from the computer because I just feel more comfortable this way.

**CLICK TO NEXT SLIDE**

I wanted to start with a brief survey to see where you guys are with the material I will go over and to help you get an idea of what I will be explaining.

**CLICK**

Are you considering a field in computer science or related major?

**HAVE CLASS RAISE THEIR HANDS**

Alright. That would make sense considering you all are taking a computer science class right now

**CLICK**

Now I know we went over this in class, but I want to see if you guys remember the full definition. What is computer science?

**HAVE CLASS RAISE THEIR HANDS**

Yup. Computer Science is the study of computers and computational systems, which is basically what you said.

**CLICK**

Earlier I asked you about pursuing a career in computer science, but how about more specifically, web development. How many of you are considering this field?

**HAVE CLASS RAISE THEIR HANDS**

So that’s BLANK of you. There are currently about 162, 900 people employed in web development in the U.S, and it’s expected to grow by about 15% in the next ten years, making it a popular and expanding industry.

**CLICK**

Now who can tell me what they think web development is?

**HAVE CLASS RAISE THEIR HANDS**

Good. I’ll be going over the precise definition in just a few slides.

**CLICK**

Finally, why do you think web development would be important? I will ask this question again near the end of the presentation, but I want to see what you guys have to say now.

**HAVE CLASS RAISE THEIR HANDS**

Yup. You hit the mark. Again, I’ll be going over this later.

**CLICK TO NEXT SLIDE**

Now I’m going to give a brief overview to show you guys where we are heading for the next fifteen to twenty minutes. I’ll start by answering what web development is. Then I’ll move on to discuss four of the major areas of web development. Next, I will state some of the important skills for this career. Afterwards, we will talk about the overall importance, why you should care about this field. Then we will talk salaries and career advancement, look at a video (two if we have time), I’ll do my live demonstration which I will have you guys interact with on your computers. I’ll end with a little friendly competition and some sources.

**CLICK TO NEXT SLIDE**

So, what is web development. Web development is designing and coding the websites we use every day. They are responsible for a site’s visual presentation, interactive features, capacity and backend structure. In short, developers create websites and shape all of our online interactions. While web developers are responsible for all aspects of a website, their primary responsibility is to convert creative inspiration into code. Using languages like JavaScript, HTML and CSS, developers transform ideas into websites. The [Bureau of Labor Statistics](https://www.bls.gov/ooh/computer-and-information-technology/web-developers.htm#tab-6) expects the web development industry to grow approximately 15% by 2026. It’s a dynamic field with high growth potential and plenty of opportunities for web developers to change the way we interact with the world.

**CLICK TO NEXT SLIDE**

With proper training, web developers can work in any industry. They typically determine the type of projects they’ll do based on the skills they develop as they learn to program.

**CLICK**

SQL or Database Development is one of the fields web developers focus in. These people create and manage databases that interact with websites. Most web applications depend on databases, so knowledge of SQL is crucial.

**CLICK**

Web designers are responsible for the layout and aesthetics of a website. They manage all of its visual elements, from fonts to color palettes, and must know several programming languages and image software programs (such as photoshop).

**CLICK**

Next, PHP development is a server-side scripting language commonly used to create dynamic web content. Though PHP developers do not build the front end of a website, their work behind the scenes fosters the interactivity we’ve come to expect from modern websites.

**CLICK**

Finally, mobile web developers are responsible for creating websites that cater specifically to mobile devices. They should have a detailed knowledge of mobile platforms like Android, iOS and Windows Mobile, and be prepared to design and code websites to display well on any smartphone. It should be noted that these are only four focuses in web development, there are many more.

**CLICK TO NEXT SLIDE**

Web development requires technical skill and a sense for intuitive design. Projects vary in size from small freelance assignments to maintaining and updating massive e-commerce websites. Whatever the scale of the project, web developers need certain skills to succeed. They should have fluency in JavaScript, SQL, PHP, HTML, XML and CSS, depending on the project, familiarity with multiple operating systems and mobile platforms like Android and iOS, an eye for design, and the ability to build visually-appealing websites, excellent communication and visual presentation skills for working with clients, and the ability to perform detail-oriented, creative work independently or with limited supervision. It should be noted that whether you work independently or with a company, the work is almost always unsupervised and very technical. Web developers must write and review thousands of lines of code without any errors or oversights to make their websites work.

**CLICK TO NEXT SLIDE**

So now you know a lot about web developers, but how do you become one? Web developers need a working knowledge of the languages and systems that create modern websites, and most professionals build these skills in school. Some web developers are self-taught, but many entry-level jobs require formal training and most professionals are college graduates. And if you want a four-year degree, colleges with robust IT departments are your best bet, as IT majors can often specialize or concentrate in web development. Some general yet important things to do include taking a class or tutorial, working your way up (do not start with the hard stuff or you will just get stressed out), practice a lot, ask any question that ever comes to your mind as soon as it pops up, and finally, talk to your teachers/professors (they want to see you succeed, at least most of the time, so they will want to talk to you). Most of these tips hold true for a lot of other majors too, so please consider them.

**CLICK TO NEXT SLIDE**

Some of you might be asking why any of this is important. Why should you keep listening? Or in general, why do we need this career? So, I’m going to ask you the question again. Do you guys have any new reasons to share for why web development is important?

**HAVE CLASS RAISE THEIR HANDS.**

Good now let’s see what I wrote down.

**CLICK TO NEXT SLIDE**

**CLICK**

They design webpages. Think about everything we do with websites. We sell and buy products, share information, use social media, watch shows or movies, look for new jobs and opportunities, and so much more. Without web developers, how do we get the websites to do all this?

**CLICK**

We are in a technology driven world, so we then need websites to drive innovation. And on the right side, I listed some common websites we use for all the purposes I mentioned earlier.

**CLICK** **TO NEXT SLIDE**

Now we are going to talk about money. In other words, salaries.

**CLICK TO NEXT SLIDE**

Unlike some industries, there isn’t an established pay scale for web development. Annual salaries vary widely depending on where you work, how much experience you have and the depth of your knowledge and skills. While one website may say the average salary is $68,670, two others that I looked at said 55,000 and 87,000, demonstrating the large amount of variance. Still, web developers earn a high salary relative to most other positions, and experienced employees in competitive markets can earn well over $100,000 per year.

**CLICK**

Now I have a lot of data by state, city, industry, and experience in these charts, but that would take a lot of time to go over all of it. So, I’m just going to focus on the general statements from each chart. If you would like to know the exact statistics, just visit computerscience.org under the web development category. For states, the top five highest for employment per 1,000 people, respectively, are district of Columbia, Oregon, Washington, Vermont, and Utah. And before you ask, I’m not sure why they are considering district of Columbia a state.

**CLICK**

Looking at industries, semiconductor and other electronic component manufacturing pays the most. Following are software publishers, depository credit intermediation, and monetary authorities-central bank.

**CLICK**

By experience, there is an obvious increasing pattern in wage as you work for more years due to raises, inflation, etc.

**CLICK**

The top paying cities, from highest to lowest, are San Jose California, San Francisco California, Seattle Washington, Lowel Massachusetts, and Washington D.C.

**CLICK TO NEXT SLIDE**

Now let’s talk about career advancement. The best way to advance your career as a web developer is to build a stellar and versatile portfolio. Most successful developers build their own website to host their portfolio. On your official portfolio, you should include websites you’ve designed and built, freelance work, and larger projects you’ve helped with. As web developers gain experience, they often move into senior management roles where they oversee a team of designers and developers on large projects. Experienced developers can translate their skills to freelancing or consulting, too. There are also several certification programs web developers can enroll in to supplement their work experience and portfolio. These include general certifications, language-specific programs and design workshops.

**CLICK TO NEXT SLIDE**

So, this is a five-minute video that will re-cap on general things about web development and will go into more specifics on areas in web development.

**PLAY VIDEO FOR CLASS, FULL SCREEN, GOOD VOLUME, BEST TO OPEN FROM WEBSITE**

**CLICK TO NEXT SLIDE**

Do I have time to show another video or should I move on because I still have a few more things to get to.

**PLAY VIDEO IF HE SAYS YES**

**CLICK TO NEXT SLIDE IF HE SAYS NO**

Now it’s time for my live demonstration. I will be using a source we all know by now, wix. I know we did a demo in class, but this will give you a fresh look, and I might show some things you didn’t notice earlier. And if you guys want, you can follow along. Just type in google wix.com and I’ll meet you there. And you should know that you will have to create a free account to follow along.

**CLICK ON WEBSITE**

Now please click on “get started” and it will ask you to sign in. I’d recommend using sign in with google.

**SIGN IN AND WAIT FOR OTHERS TO SIGN IN**

Now you should be on your homepage. Bring your curser to the right-hand corner and click the plus sign to start your website.

You can click on whatever category you want, but I’m just going to click online store.

After that, click what style you want. There is a sidebar on the left where you can pick by category. So I can, for example, click on sports and outdoors because I want to create a website related to this. Now click on your template. I’ll click on the bicycle shop one.

Now we’re almost set, we just need to edit the website to look the way we want.

**SHOW THEM STUFF YOU CAN DO WITH WEBSITE (STUFF ON SIDEBAR, UPLOADING, CHANGING BACKGROUND, ADDING TEXT, CREATING MOBILE PLATFORM, DELETING, ETC.)**

You can click publish when you are done. It will ask you about your website domain, and you can either use theirs or make your own. I’ll just stick with theirs for now. And BAM! You’ve got a website now. By showing you this demonstration, I do not mean to downgrade web development. It is not as easy as this website makes it seem. The code is already in wix, we just click on what we want. Web developers had to make thousands of lines of code to form the same task. This was done to simply give you a taste into web developing.

**GO BACK TO POWERPOINT**

**CLICK TO NEXT SLIDE**

Now it’s time for the fun little competition I mentioned earlier. How many of you have ever played Kahoot or at least know what it is and how to play? For those that don’t, this is a website where you can make quizzes for multiple people to play at the same time. You will have to use your mobile devices and go to Kahoot.it. Once I start up the Kahoot, a code will appear on the screen, and you simply type that code in on your phone, give yourself a screen name, and you are in. Oh, and please use a school-appropriate screen name. Once everyone else is in, I will click start and the competition begins. They are all multiple choice, ten questions, four answer choices. You want to be the first to answer to get the most points. You click the answer you think is correct on your phone. At the end, we will see the top three players and they will get a Starburst. You guys ready?

**OPEN AND GO THROUGH THE KAHOOT**

**GO BACK TO POWERPOINT**

**CLICK TO NEXT SLIDE**

So this is just a list of helpful resources you can use if you want to learn more. I can send the list to anyone who is curious.

**CLICK TO NEXT SLIDE**

And here are the sources I used. Thank you for listening everyone! Oh, and everyone can take a starburst if they would like.