Ensuring my Web Design is User-Friendly:

- 1. As more and more people use their mobile phones to access the Internet, creating a mobile optimized website has become a necessity. This can be made using Bootstrap.
- 2. A user-friendly website should also be accessible to everyone including blind, disabled or the elderly. These users typically use screen-readers to access the Internet.

These are some of the attributes that are designed specifically for screen reader users. Many times these are not spoken or visibly noticeable to a sighted user. *ALT Attribute*

Often called an ALT tag, the ALT attribute is used to provide a text equivalent for an object or image. The ALT attribute actually has several tags defined for it, including:

- img
- area
- input (optional)
- applet (optional)
- 3. Planning my website sections and categories carefully and present information in a way that it is easy for users to find. Always think from the perspective of my users.
- 4. Users tend to scan through key parts of the page quickly to determine if it is relevant to their needs. Correct use of headings, sub-headings, paragraphs, bullets or lists help to break up text, making it easy for readers to scan.
- 5. It is important to ensure my website appears and behaves consistently across all major browsers such as Chrome, Internet Explorer, Firefox, Safari and Opera. Simple things like this set a professionally designed website apart from the rest.
- 6. Good navigation is one of the most important aspects of website usability. It is equally important for the navigation to be clutter-free. Advancement in DHTML, and JavaScript libraries such as Motools and Ajax also opened the doors to many new possibilities for creating innovative navigation systems.
- 7. Forms are a very important element on business websites. They allow users to interact with the site. It is important to ensure the forms are easy to use and accessible to everyone. This can be achieved by
 - Using correct labels for all fields
 - Follow good form design principles
 - ◆ Try to keep the number of fields to a minimum
 - Offer tool tips and suggestions
 - ◆ Display on-screen message on completion
 - ◆ Use correct validation
- 8. The right contrast between the background of the website and content is one of the most basic yet most important web design principles that should never be overlooked. Good contrast between background and text e.g. black text on a white background makes your content legible and easy to read.

Increasing Page Performance:

- 1. Use Gzip, a software application for file compression, to reduce the size of your CSS, HTML, and JavaScript files that are larger than 150 bytes.
- 2. Do not use gzip on image files. Instead, compress them in a program like Photoshop where I can retain control over the quality of the image.
- 3. Minify CSS, JavaScript, and HTML by removing code comments, formatting, and unused code. It can be done by CSSNano and UglifyJS.
- 4. Browsers cache a lot of information (stylesheets, images, JavaScript files, and more) so that when a visitor comes back to my site, the browser doesn't have to reload the entire page. Using a tool like YSlow to see if I already have an expiration date set for my cache. Then setting my "expires" header for how long I want that information to be cached.
- 5. My server response time is affected by the amount of traffic I receive, the resources each page uses, the software my server uses, and the hosting solution i use. To improve my server response time, I can look for performance bottlenecks like slow database queries, slow routing, or a lack of adequate memory and fix them.
- 6. Content distribution networks (CDNs), also called content delivery networks, are networks of servers that are used to distribute the load of delivering content. Essentially, copies of my site are stored at multiple, geographically diverse data centers so that users have faster and more reliable access to my site.
- 7. Making sure that my images are no larger than they need to be, that they are in the right file format (PNGs are generally better for graphics with fewer than 16 colors while JPEGs are generally better for photographs) and that they are compressed for the web.
- 8. Use CSS sprites to create a template for images that i use frequently on my site like buttons and icons. CSS sprites combine my images into one large image that loads all at once (which means fewer HTTP requests) and then display only the sections that i want to show. This means that I am saving my load time by not making users wait for multiple images to load.

Solving Browser Specific Style Incompatibility:

To check my code with the W3C Markup Validation Service to make sure it's standards-compliant.

Using a well-established framework, whether for styling (Bootstrap) or a JavaScript framework (such as Angular or React).

Test with the difficult browsers first (Microsoft Edge).

CSS reset style sheets. Addition of the style sheet ensures avoidance of any layout design issue. Some common reset style sheets used include HTML5Reset, Eric Meyers CSS Reset and the Github based Normalize.css.

It is beneficial to keep the styles separate for each type of browser that the website supports. Once the separation is complete, it can be included within the same HTML page by using conditional comments which help in invoking the right stylesheet for the right type of browser.

Reviewing a Website:

- 1. The first thing I would check is that important information is up to date. If names, addresses, contact information, etc. have changed, these should be updated straight away. I would also check pricing, service offers, delivery costs, policies and terms and conditions.
 - 2. Making sure the theme fits the purpose.
 - 3. Check for broken internal and external links
 - 4. Ensuring strong web security and passwords to prevent data breach and malware.
 - 5. Evaluate the Hosting