

Written test

**Please explain in your own words*

1. What is a JavaScript Framework and explain about **Vue.js** as one of the JavaScript Framework!
2. What is the use of ellipsis?
3. Explain animation properties below:
 - a. @keyframe
 - b. animation-name
 - c. animation-duration
 - d. animation-iteration
 - e. animation-direction
4. Please explain how **lazy load** works in JavaScript!
5. Mention at least 5 **git commands** and describe each function of them!

Answer

1. A JavaScript framework is a collection of pre-written JavaScript code that provides a structured way to build web applications. Frameworks offer a variety of tools and libraries that organize development, making it easier and faster to create complex, dynamic web experiences. Vue.js is a progressive JavaScript framework that is approachable and easy to integrate into existing projects. Vue.js is suitable for projects ranging from simple prototypes to large-scale applications. It's known for its approachable learning curve, excellent performance, and strong community support.
2. Ellipsis often represented by three consecutive dots (...) is used to create a truncated text effect, where text is cut off and replaced with an ellipsis. Imagine we have a box with a fixed width that can only display a certain amount of text. If the text inside that box is too long to fit within its width, it would overflow. Instead of letting the text spill outside the box, we can use text-overflow: ellipsis; to show an ellipsis at the point where the text is truncated.
3. Below is the explanation:
 - a. @keyframe is a rule that allows us to specify styles at various points during an animation. It defines how an element should look at different stages of the animation.
 - b. animation-name is a property that specifies the name of the keyframe animation we want to apply to an element.
 - c. animation-duration is a property that sets the length of time it takes for the animation to complete one cycle.
 - d. animation-iteration-count defines how many times the animation should repeat.
 - e. animation-direction property determines the direction of the animation, which can be normal, reverse, alternate, or alternate-reverse.
4. Lazy loading is a technique used to defer the loading of non-critical resources (such as images, videos, iframes, and scripts) until they are actually needed. It improves initial page loading and performance by reducing the initial fetching and rendering of resources. Lazy loading optimizes the user experience, especially on slow connections or large, content-heavy websites.

5. Git Commands:

- a. `git init`: Initializes a new Git repository, turning an existing directory into a Git repository.
- b. `git clone`: Creates a copy of a remote repository to our local machine.
- c. `git add`: Adds files or changes to the staging area, preparing them to be committed.
- d. `git commit`: Records changes from the staging area to the repository with a commit message.
- e. `git push`: Sends committed changes from our local repository to the remote repository.