

I. 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!

A JavaScript framework is a collection of libraries or tools that provide a structure and functionality for building web applications using JavaScript. Vue.js is one of the popular JavaScript frameworks that is designed to be progressive, approachable, performant, and versatile. Vue.js allows you to create declarative and component-based user interfaces with HTML, CSS, and JavaScript. You can also use Vue.js with other libraries and tools to create more complex and full-featured applications.

2. What is the use of **ellipsis**?

- To represent a range of values or a variable number of parameters in a function.
- To access the parent directory in a path.
- To omit some parts of a code or a text that are not relevant or important.

3. Explain animation properties below:

- a. **@keyframe**

A rule that defines the keyframes or stages of the animation. You can use percentages or keywords to specify the points where the animation changes

- b. **animation-name**

The name of the **@keyframes** rule that you want to apply to the element.

- c. **animation-duration**

The time that the animation takes to complete one cycle.

- d. **animation-iteration**

The number of times that the animation repeats.

- e. **animation-direction**

The direction of the animation. You can use the keywords **normal**, **reverse**, **alternate**, or **alternate-reverse** to specify how the animation plays on each cycle.

4. Please explain how **lazy load** works in JavaScript!

Lazy load is a technique that delays the loading of resources that are not critical or visible until they are needed. This can improve the performance and user experience of a web application by reducing the initial loading time and bandwidth usage. Lazy loading can be applied to different types of resources, such as images, videos, scripts, or fonts. One way to implement lazy load in JavaScript is to use the Intersection Observer API, which allows you to detect when an element intersects with another element or the viewport. You can then use `dynamic import()` expressions or the `loading` attribute to load the resources only when they are in view

5. Mention at least **5 git commands** and describe each function of them!

- **git init**: Initializes a new Git repository in the current directory.
- **git clone**: Clones an existing Git repository from a remote source.

- `git status`: Shows the status of the files in the working directory and the staging area.
- `git add`: Adds the changes in the working directory to the staging area. You can use a file name, a directory name, a pattern, or a dot (.) to specify which files to add.
- `git commit`: Records the changes in the staging area as a new commit. You can use the `-m` option to add a message to the commit.
- `git push`: Pushes the local commits to the remote repository. You can use the name of the remote and the name of the branch to specify where to push.
- `git pull`: Pulls the changes from the remote repository and merges them with the local branch. You can use the name of the remote and the name of the branch to specify what to pull.