# Website Maintenance

Let's talk about the different steps we can take to run our application smoothly over the long run.

In the previous lesson, we briefly discussed the concept of server maintenance. Now, let's focus on the site itself. In order to efficiently handle traffic and provide the ultimate user experience, we need to keep it clean and safe.

Here are some of the things to consider while maintaining your website.

## Frequent Backups #

We must make sure that the latest version of our site is backed up in case of data loss. The optimal solution would be to have a history of all the previous states of the website.

## Statistical Analysis #

We must be observant of the activity that happens on our site. We can use this data to estimate growth and figure out what needs to be improved. The popular Google Analytics is a master in representing all sorts of statistical data for websites.

# Usability Testing #

A great way to refine our website is to take user feedback through periodic usability tests. We should try to spread our user sample over a diverse range of people, from those are familiar with the purpose of the application, to the users who are using it for the first time.

Having a usability test every couple of years or so can keep us up to date with the changing preferences of the customers and can also point our any underlying problems in the system.

# Performance Testing #

We must ensure that the performance and the response speed of our application is not hampered by high user traffic. We can perform stress tests using Loadrunner.

Another good practice is to keep compressed and cached data at our server. This would reduce load time.
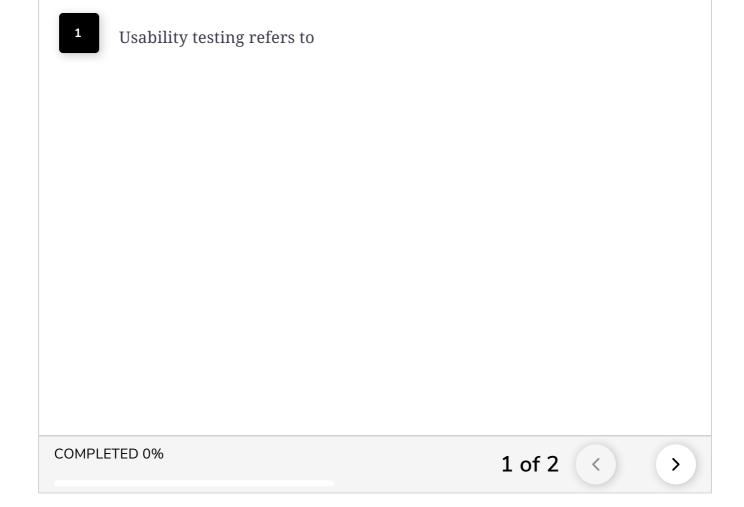
# Security Maintenance #

We should make sure that the security software in charge of every component in our application is updated regularly. Cyber attacks have brought down giant websites in the past, so we must take all measures to secure ourselves from malicious hackers. Burp Suite and Grabber are excellent web application scanners.

# Component Maintenance #

A good website is one which provides the functionality it is built for. We must test out all links, images and input forms to search for any faulty components which could hamper the user experience.

Sometimes, updating the code of our application can make some old components incompatible with the new changes. Hence, component testing is a fundamental of website maintenance.

# Test Your Knowledge! #

In the next lesson, we will discuss a few automated testing softwares.