**SCENARIO 2:**

What are the advantages of automating software builds? How will you automate build and deployment of a Java web application?

* What types of testing would you include as part of the automation?
* How do you approach testing of a web front end?

**Advantages of automating software builds:**

The advantages of build automation to software development projects include

* Improved product quality
* Accelerate the compile and link processing
* Eliminate redundant tasks
* Minimize "bad builds"
* Eliminate dependencies on key personnel
* Have history of builds and releases in order to investigate issues
* Save time and money.

**Automating build and deployment of a Java web application:**

The need here is to start a container and to deploy an application from a build script before to run tests depending on the deployed application. This is a typical need for integration tests, end-to-end or functional tests, UI tests.

**Types of testing in Automation:**

Types of tests are Unit Tests, Integration Tests, and GUI Tests.

**Unit Tests:** Unit Tests are tests that are fast, reliable, and only test tiny bits of code logic. Since automated Unit Tests are quick to develop and can be easily incorporated into your Continuous Integration process, these tests comprise the largest portion of your automated tests.

**Integration Tests:** These Tests are performed for all areas that cannot be Unit Tested. These tests are much more difficult to write, run more slowly, and require a lot of coding.

**GUI Tests:**The Graphical User Interface (GUI) also needs to be automated in order to exercise all the functionality and paths of the application. GUI automation is tricky because it’s usually comprised of numerous dependencies.

**How do you approach testing of a web front end?**

Front-end Testing is testing Graphical User Interface (GUI), functionality and usability of website or application. There are many tools available for front-end testing. Here, are three popular front-end testing tools. They are **Grunt ,Live Reload, Karma.**