Business Scenario

An insurance company XYZ is planning to build a Web Application to host LMS (Learning Management Solutions) for all of its customers. The company is facing a problem of being able to deliver these LMS solutions on weekly basis as the team of developers who develops these solutions is not aware of any automation best practices by which they can continually integrate changes on their production web application.
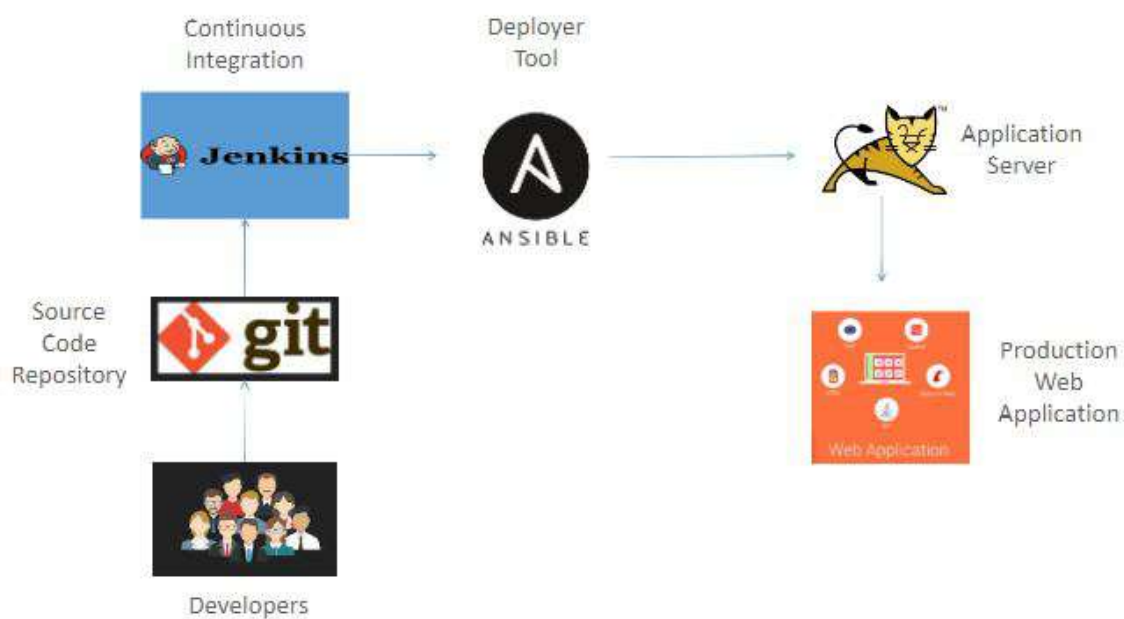
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Objective

The company has now hired a team of DevOps Engineers who can implement automation to integrate the changes done by the developers on weekly basis. This team has expertise on various automation tools like Jenkins, Ansible, Apache Tomcat, and Git/GitHub

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Architectural Diagram

Presentation

Agenda

- We will deploy three AWS RHEL 7 EC2 instances (t2.micro): Jenkins, Ansible, and Tomcat.
- The servers configuration is provided in step-by-step solution guide.
- The team of developers working on weekly LMS Solutions will merge their code to a GitHub repo.
- As soon as the code reaches GitHub, using a CI (Continuous Integration) job, setup in Jenkins, automated builds will be triggered using GitHub web hooks.
- The code is written in Java and will be compiled using Maven plugin.
- The Jenkins CI job will use "Publish Over SSH" plugin to integrate with Ansible and Tomcat servers to automate builds.
- To test the CI functionality, we can use various "git" commands (as given in step-by-step solution guide).

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