DEVOPS PART 4: CI / CD

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CHECKLIST: CONTINUOUS DELIVERY 1/2

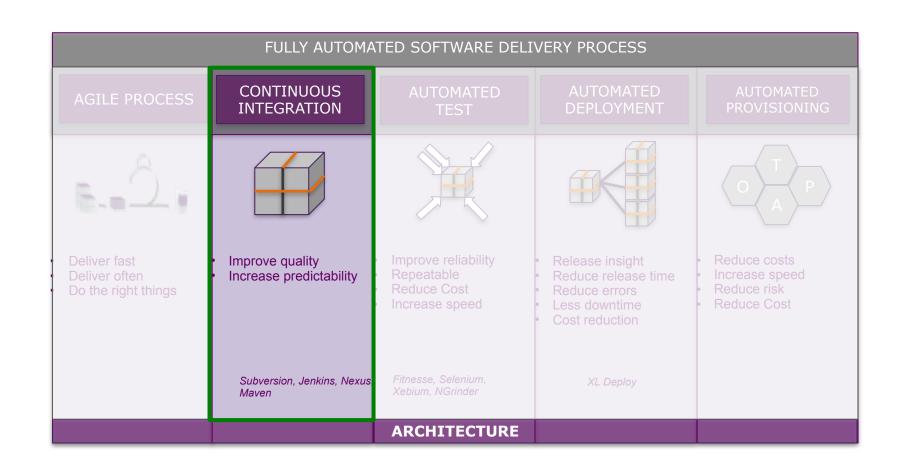
- □ The process for releasing/deploying software MUST be repeatable and reliable.
- Automate everything!
- ☐ If somethings difficult or painful, do it more often.
- Keep everything in source control
- ☐ Done means "released".
- Quality is built in the process.
- Everybody has responsibility for the release process.
- Improve continuously.

CHECKLIST: CONTINUOUS DELIVERY 2/2

- ☐ Build binaries only once.
- □ Use precisely the same mechanism to deploy to every environment.
- Smoke test your deployment.
- If anything fails, stop the line!



AUTOMATED BUILDS



"Continuous Integration is an Attitude, Not a Tool"

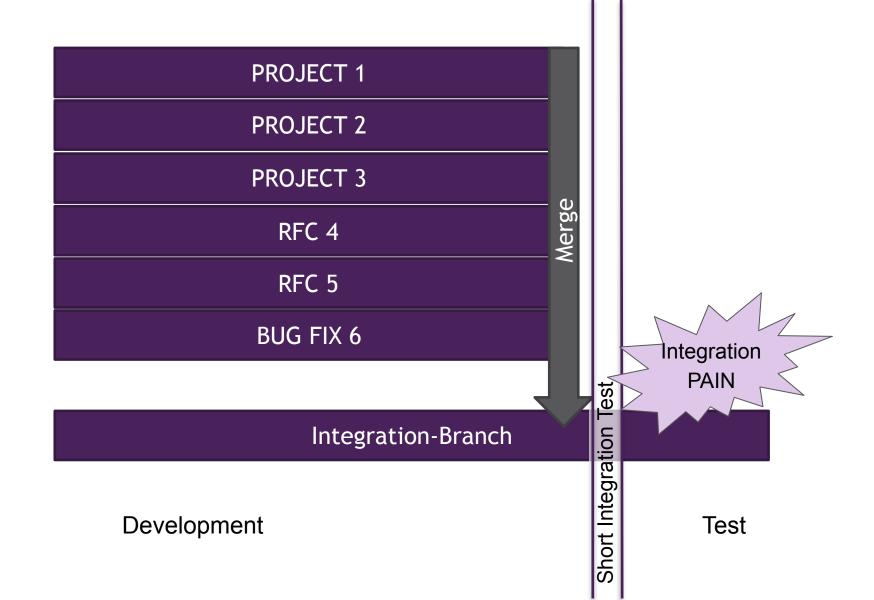
5

CHECKLIST: CONTINUOUS INTEGRATION

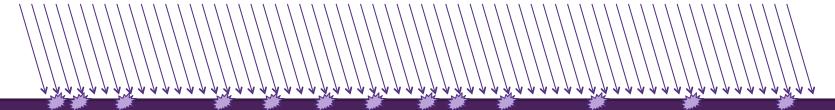
Automate Deployment

Maintain a Single Source Repository. Automate the Build Make Your Build Self-Testing **Everyone Commits To the Mainline Every Day** Every Commit Should Build the Mainline on an Integration Machine ☐ Fix Broken Builds Immediately Keep the Build Fast Test in a Clone of the Production Environment Make it Easy for Anyone to Get the Latest Executable Everyone can see what's happening

LATE INTEGRATION



CONTINUOUS INTEGRATION



Single-Branch

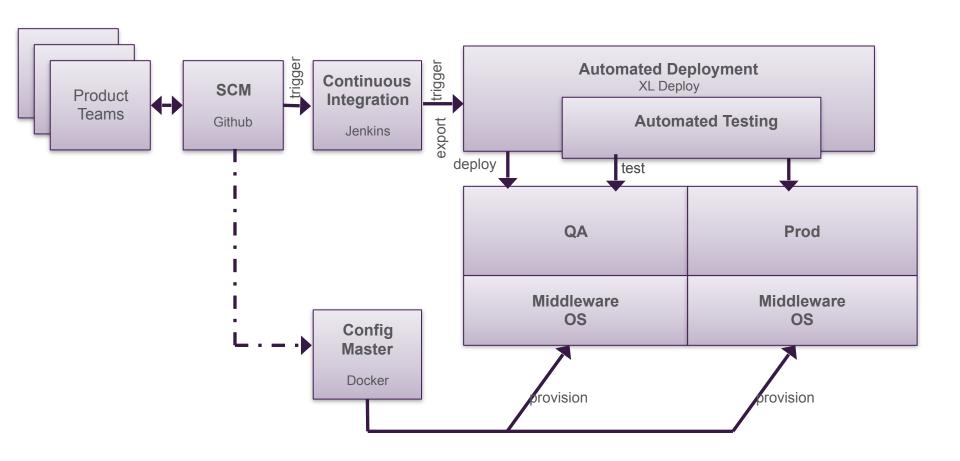
Full Sprint Integration Test



LET'S TRY JENKINS

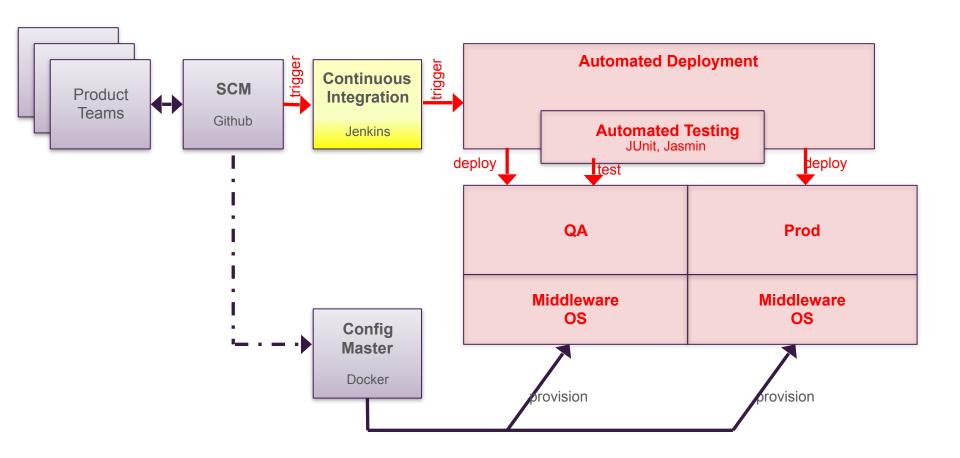


OUR ENVISIONED CONTINUOUS DEPLOYMENT PIPELINE

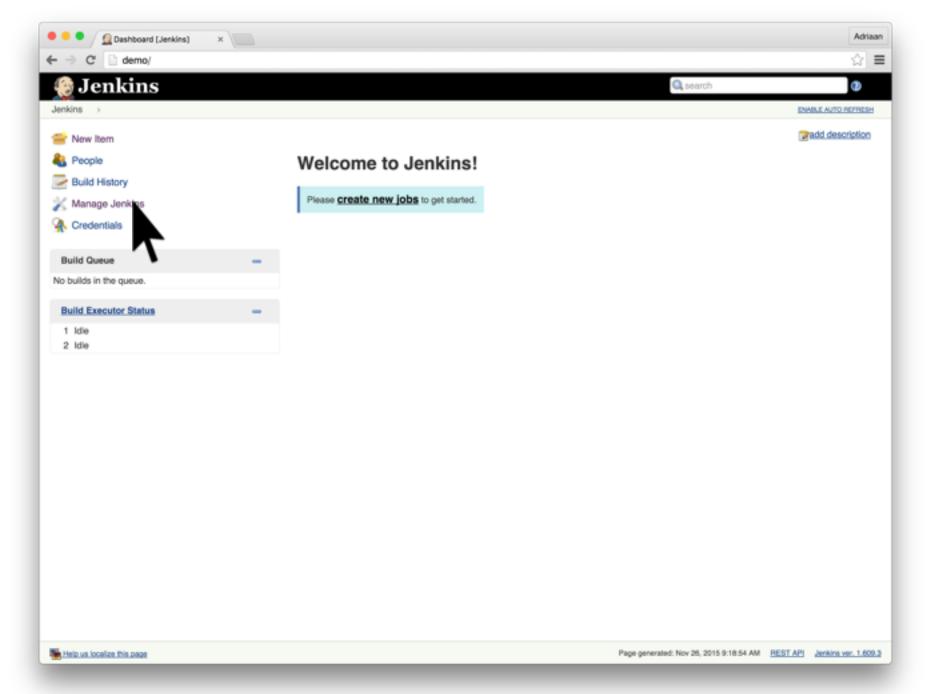


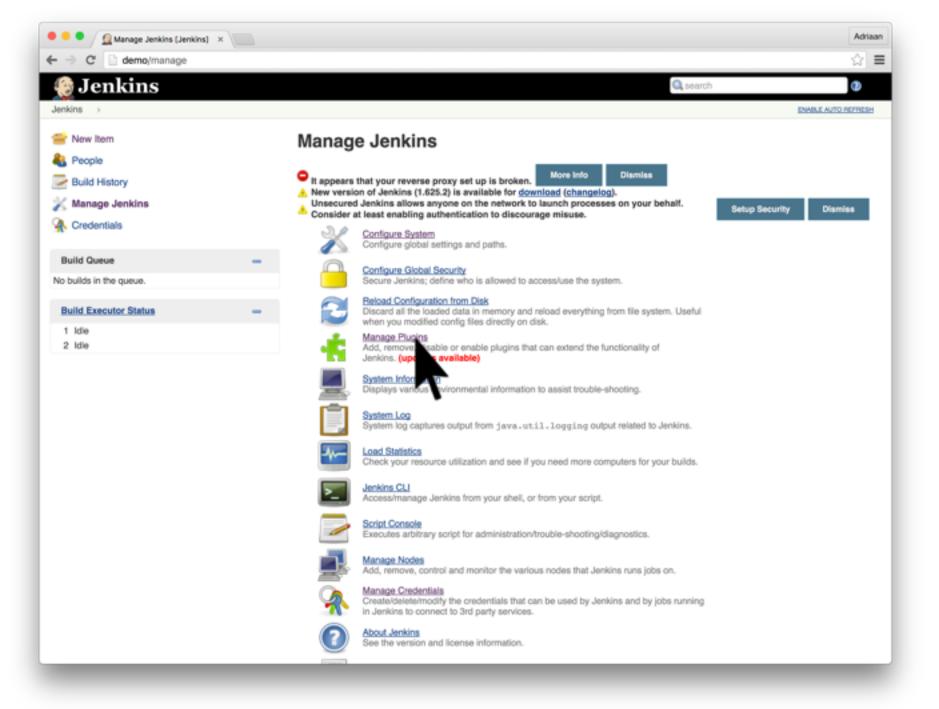


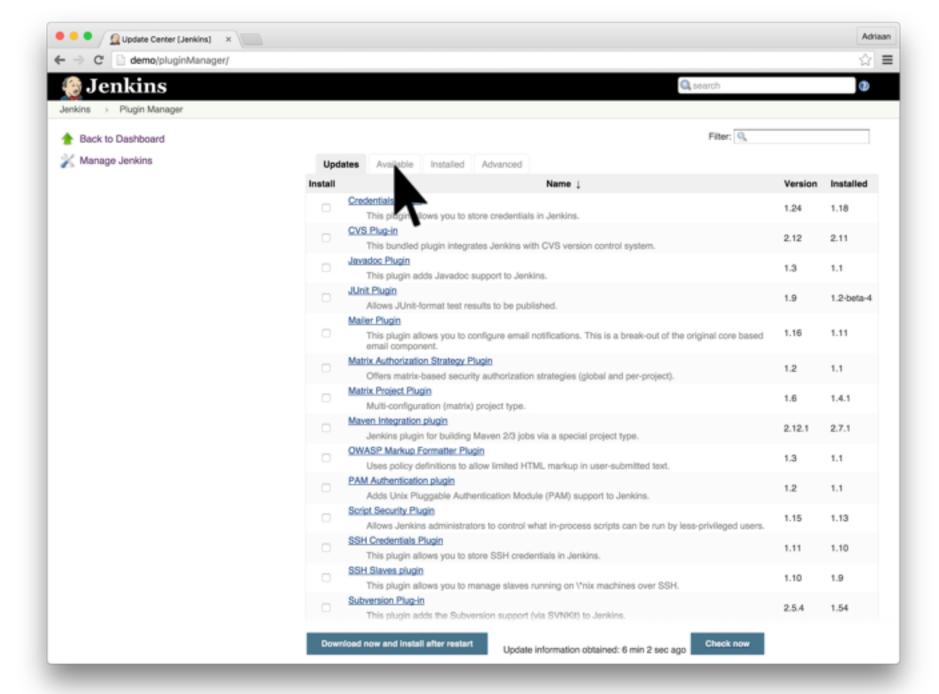
THE MISSING PARTS – SO FAR

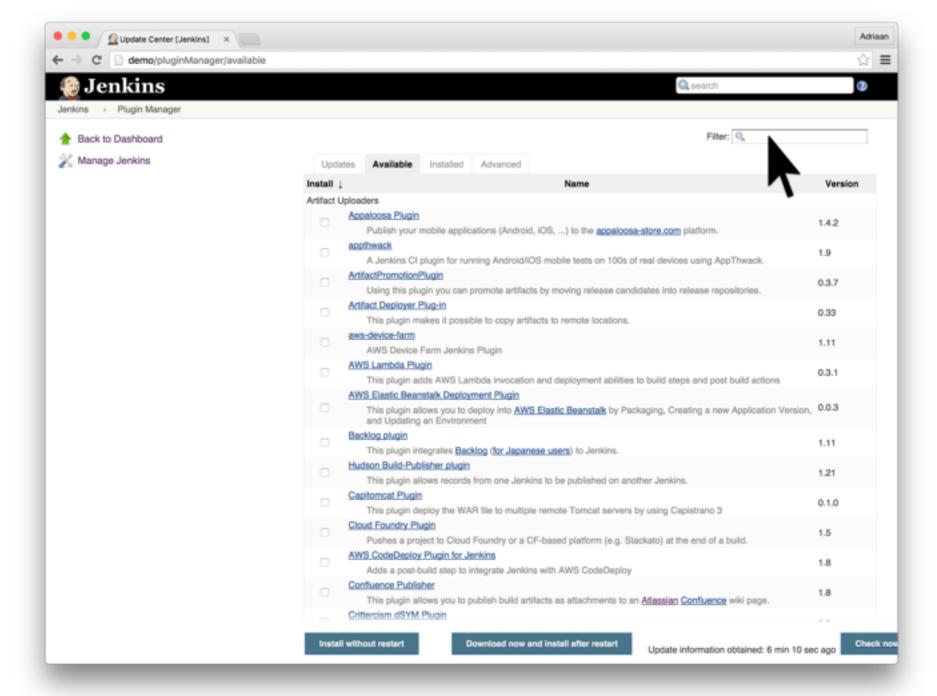


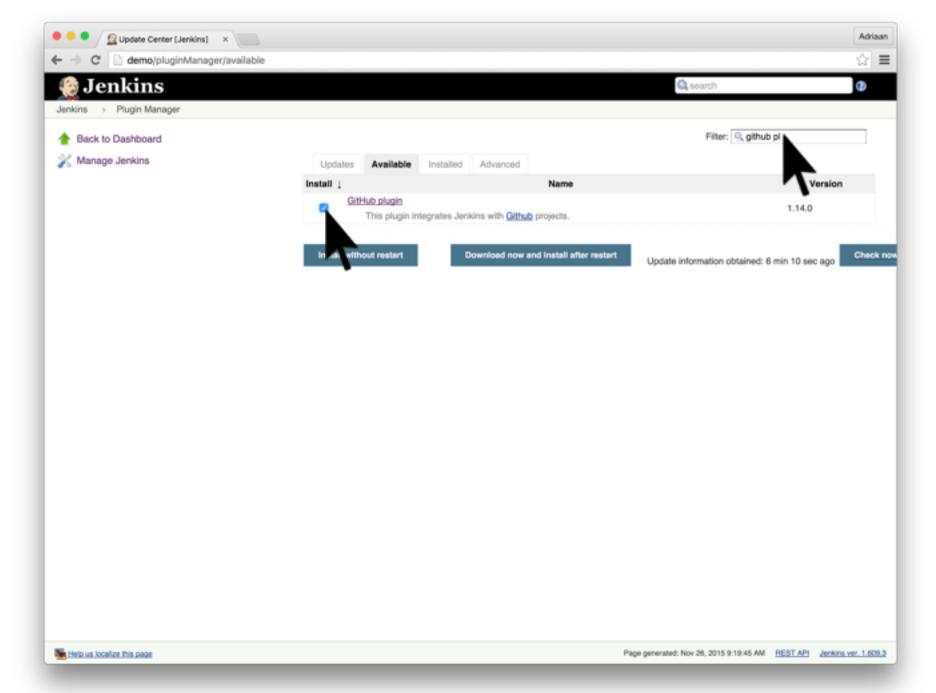
INSTALL JENKINS PLUGINS

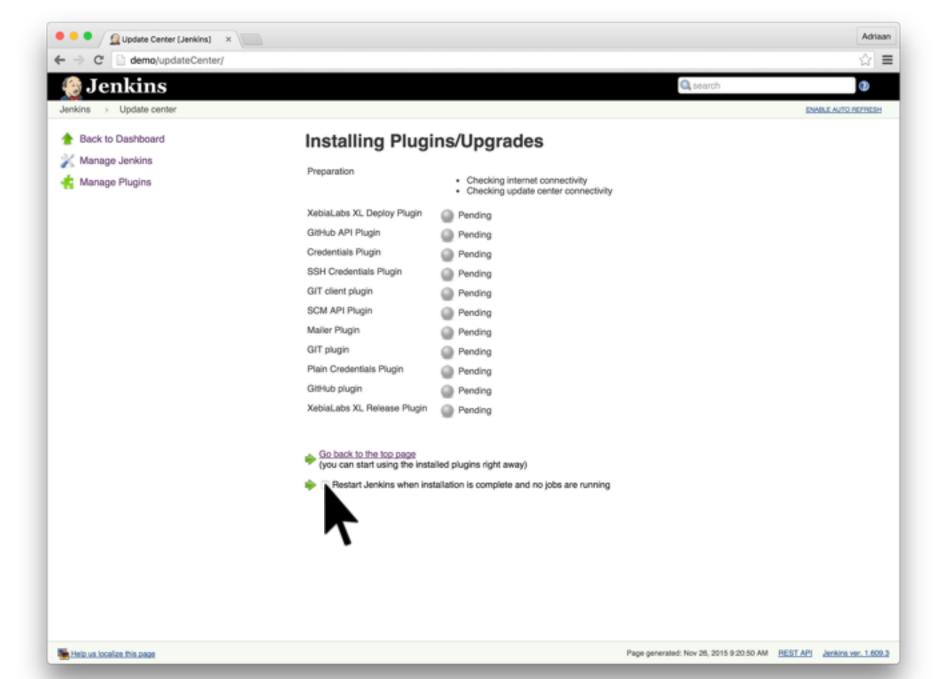


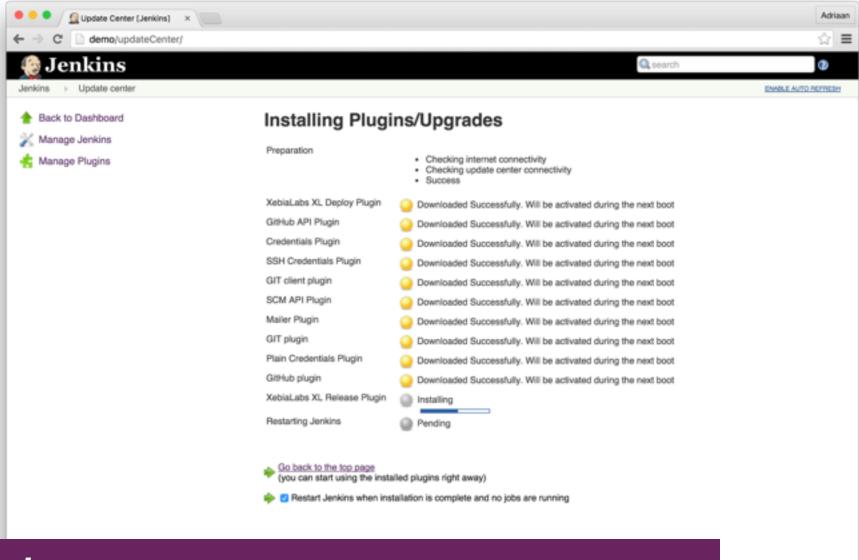






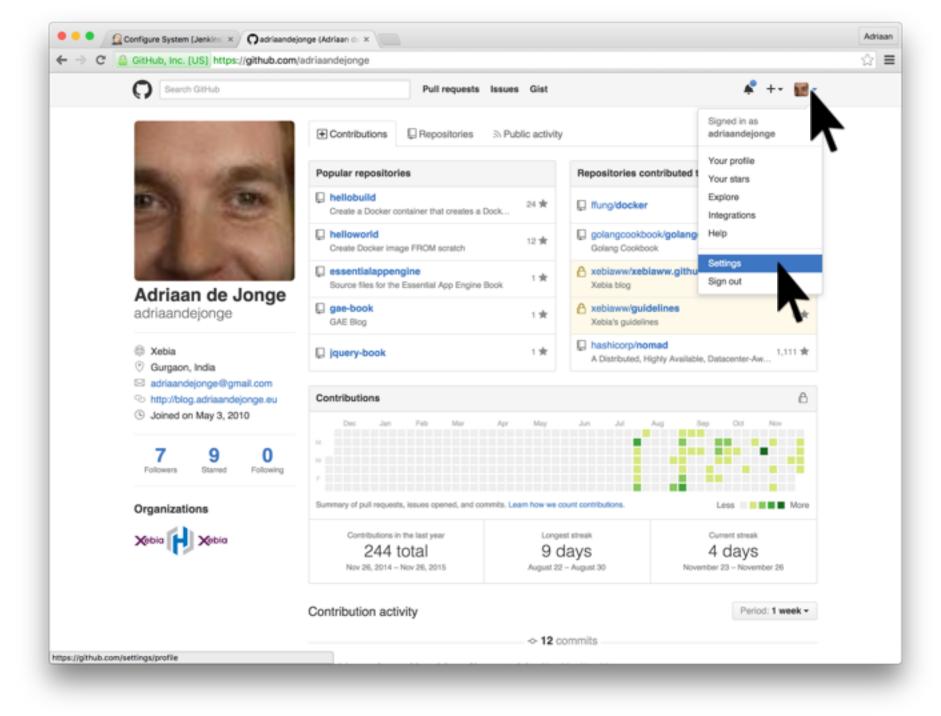


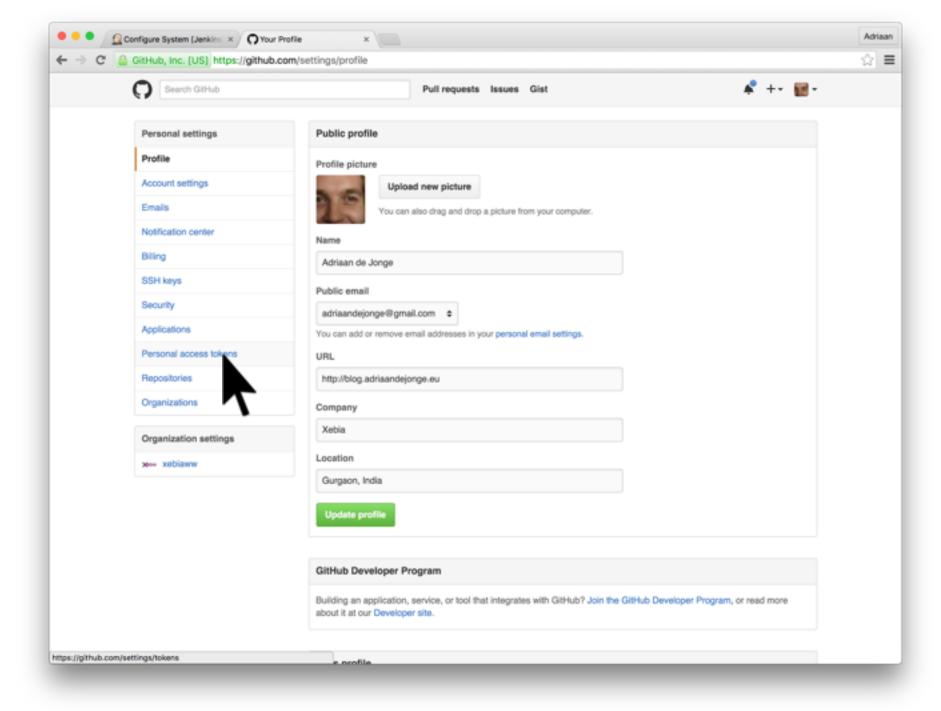


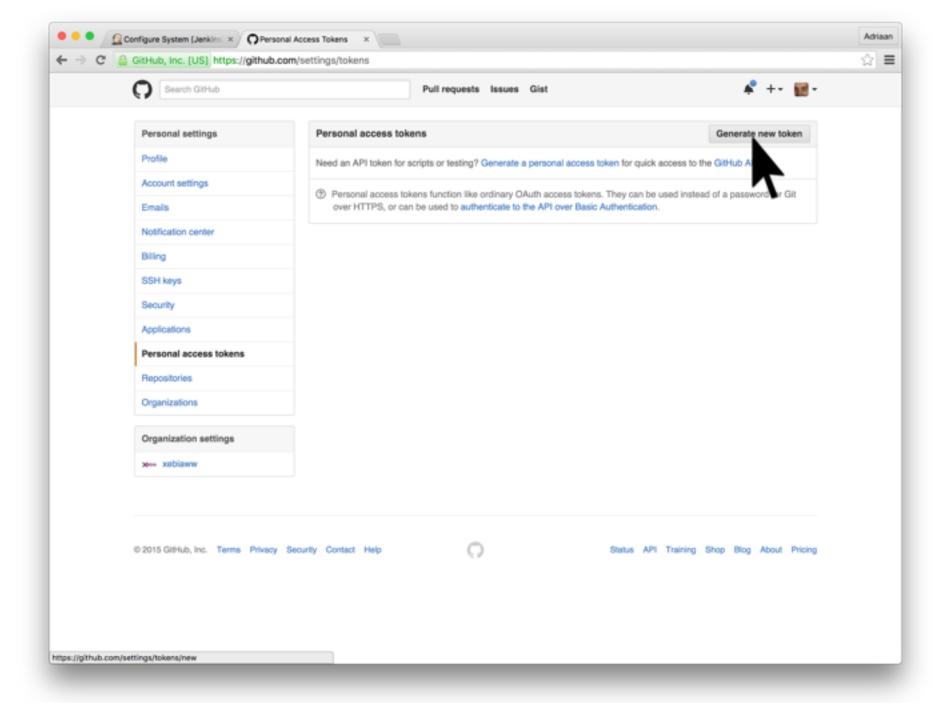


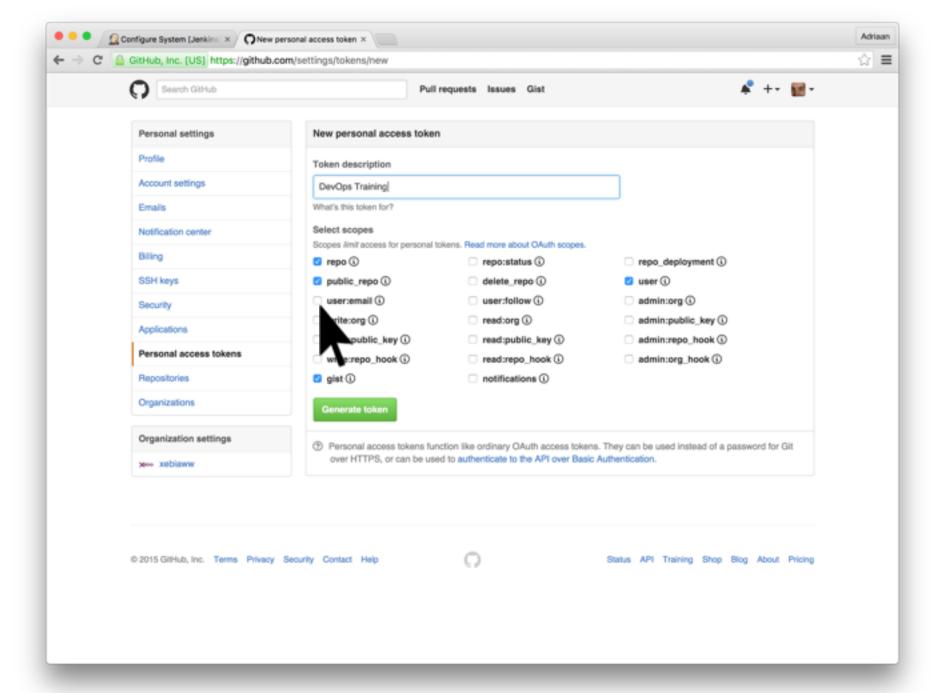
DON'T WAIT, CONTINUE TO NEXT STEP

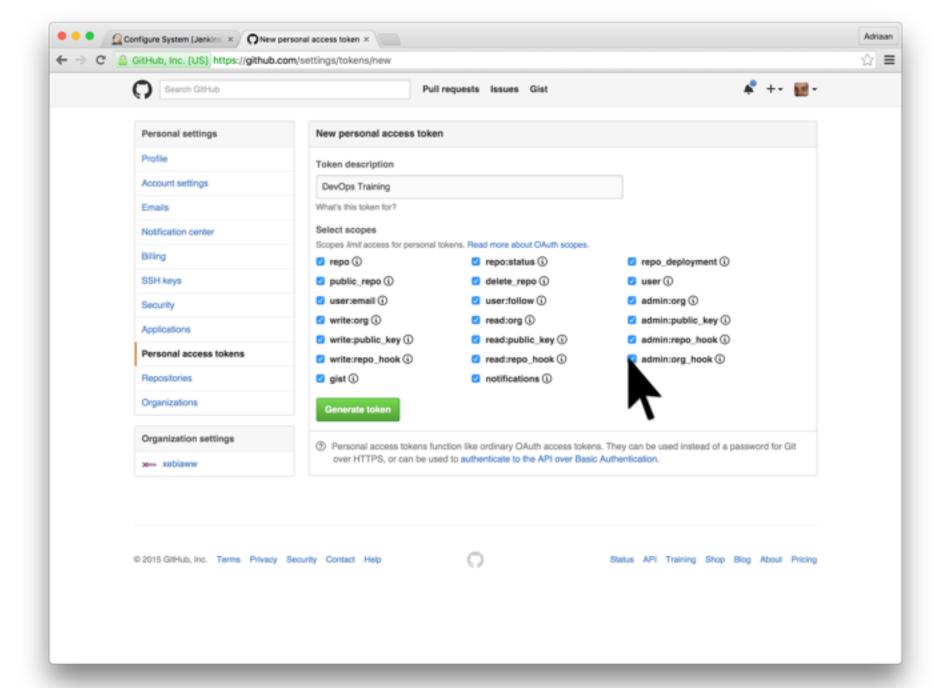
IN THE MEANTIME, CREATE A PERSONAL ACCESS TOKEN IN GITHUB...

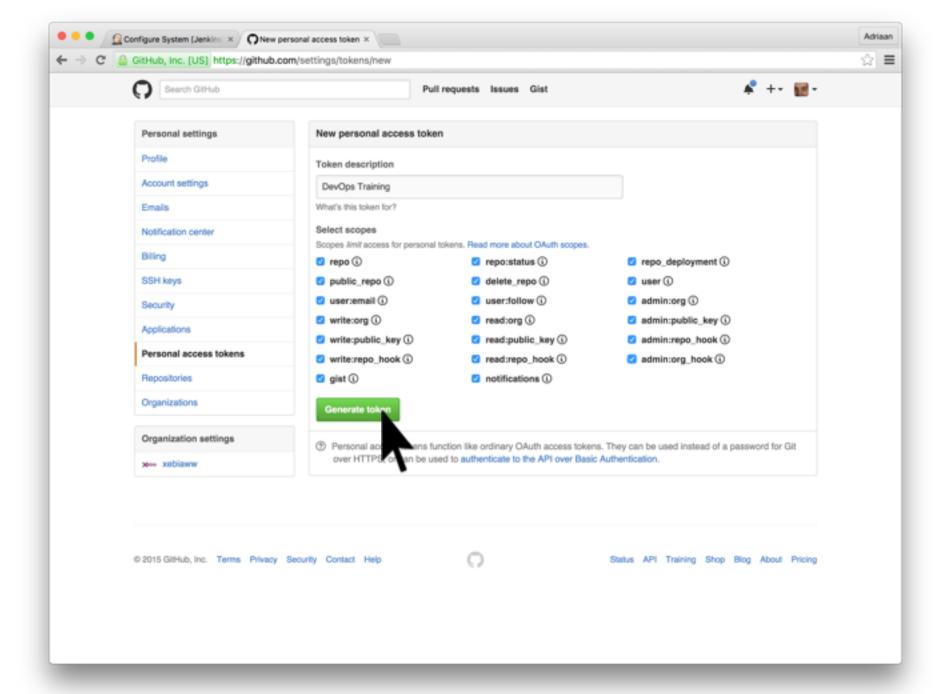


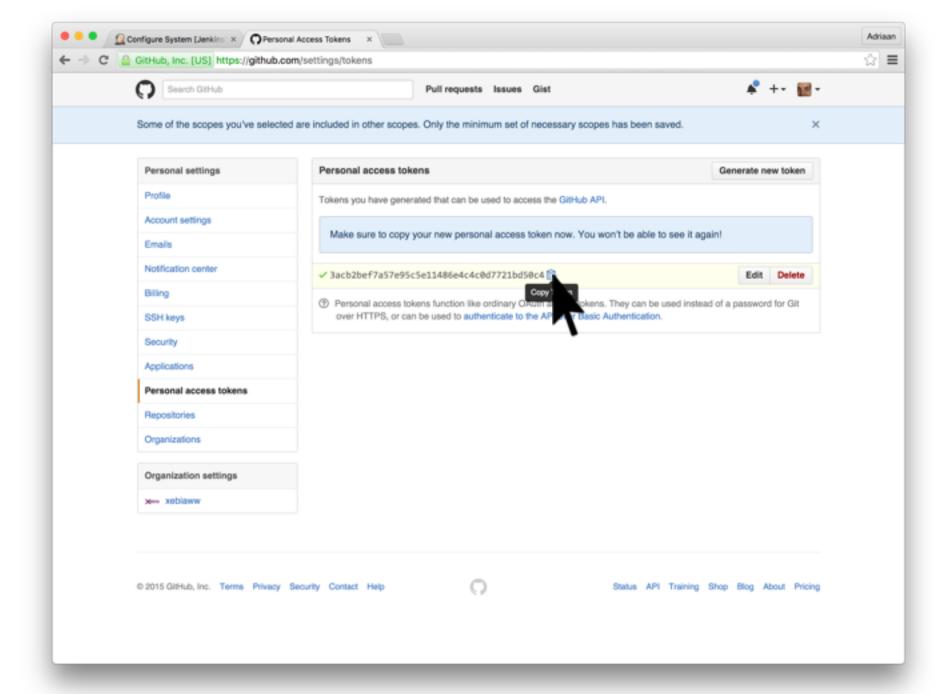


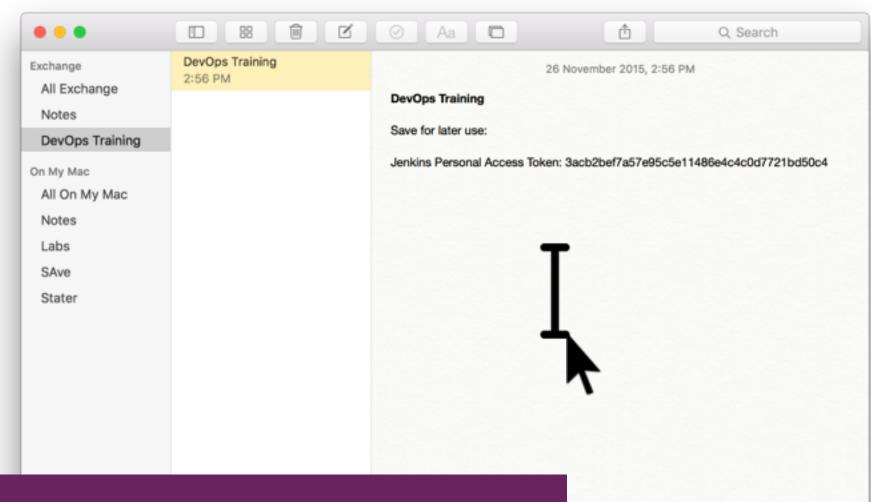






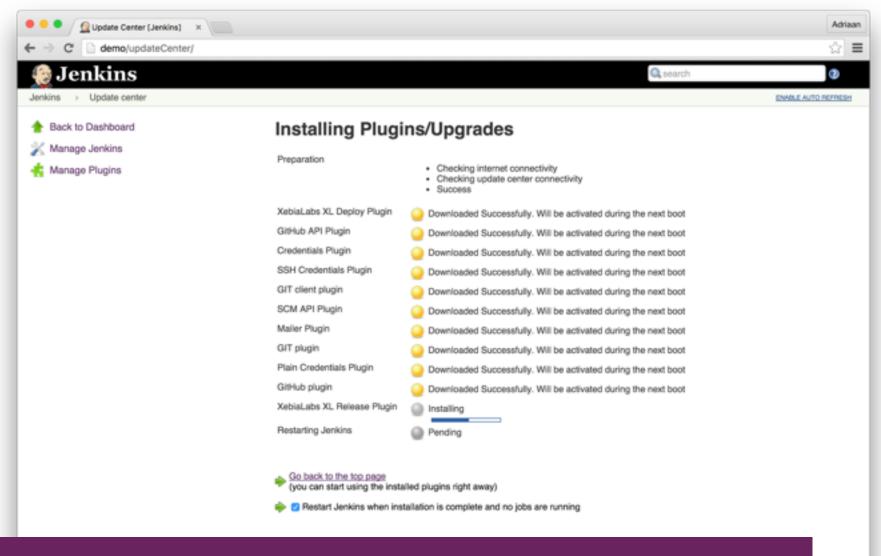






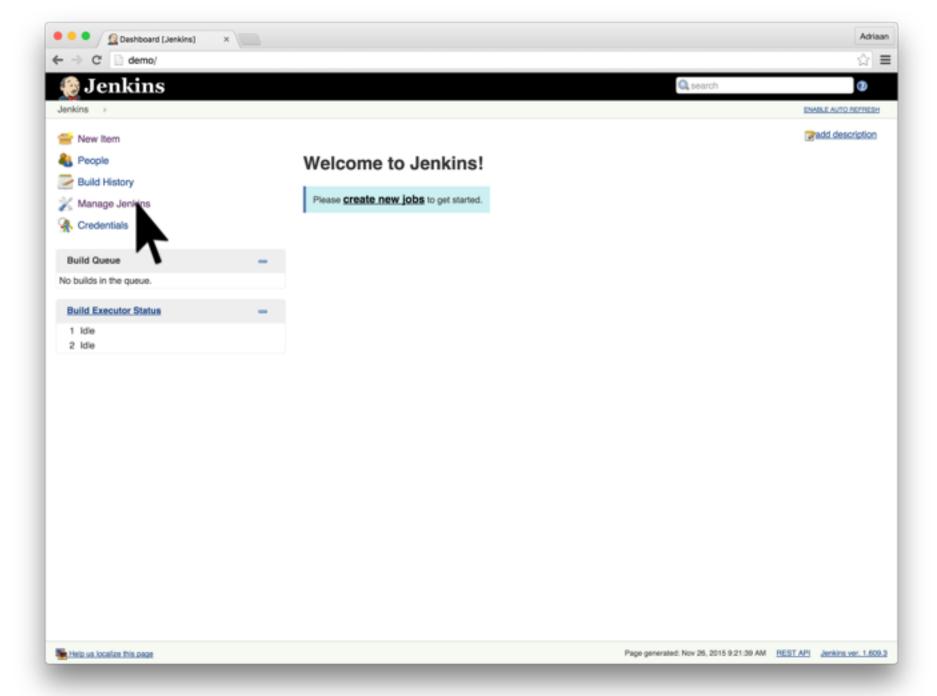
SAVE KEY FOR LATER USE

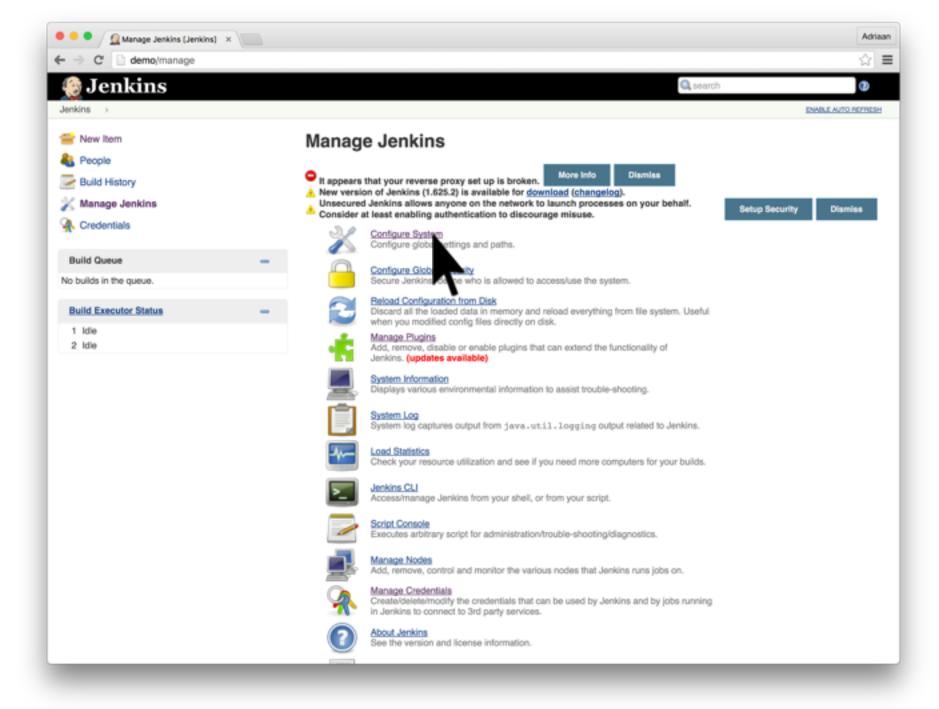
JENKINS GLOBAL CONFIG

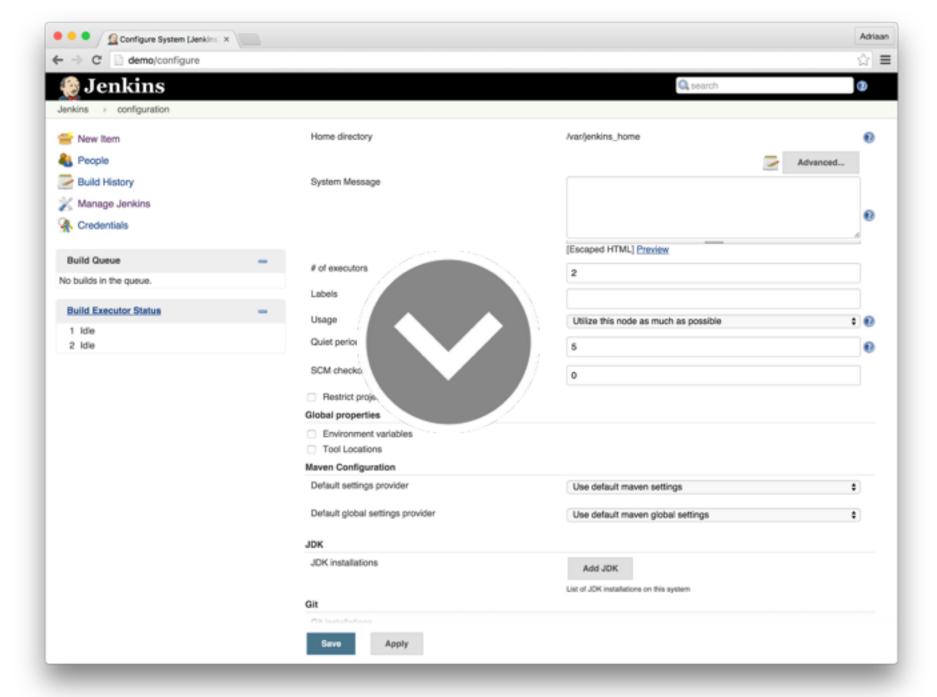


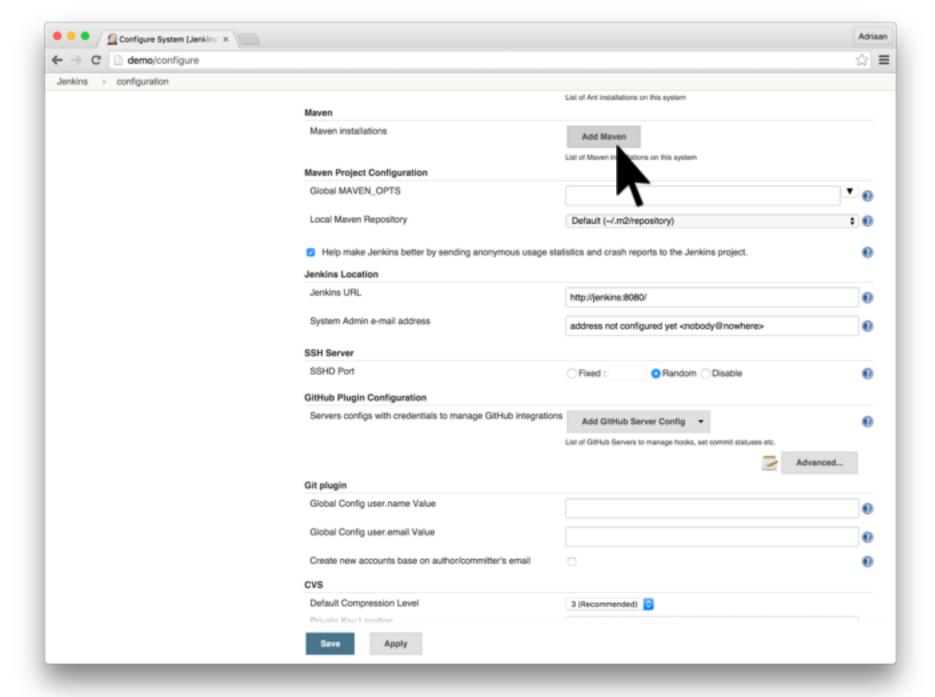
IF THIS SCREEN STILL SHOWS, CLICK THE JENKINS LOGO; PROBABLY JENKINS IS ALREADY RESTARTED BUT THE SCREEN FAILED TO REFRESH

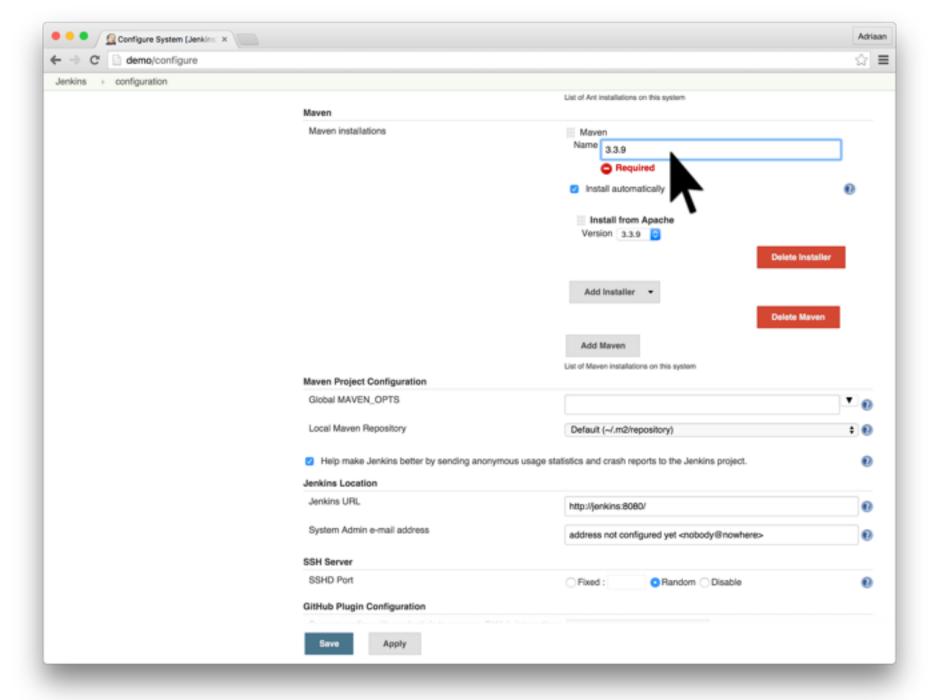
is ver. 1.609.3

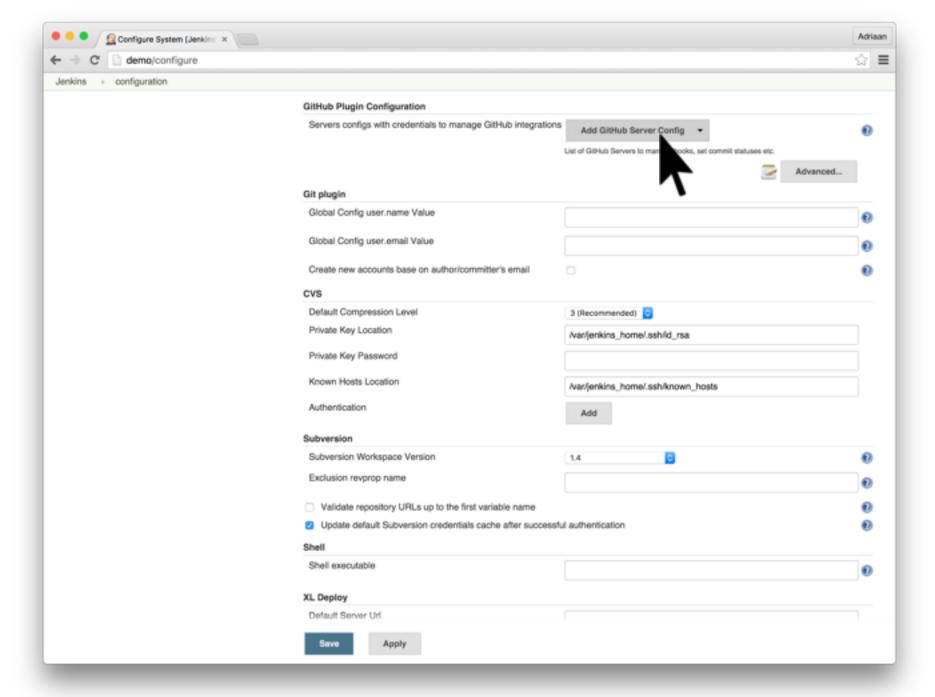


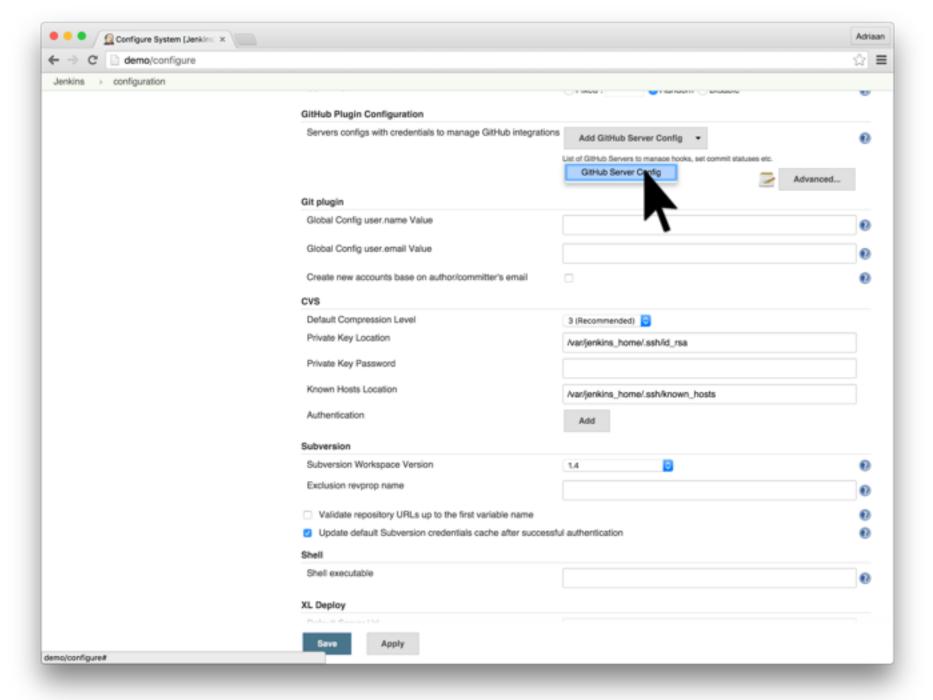


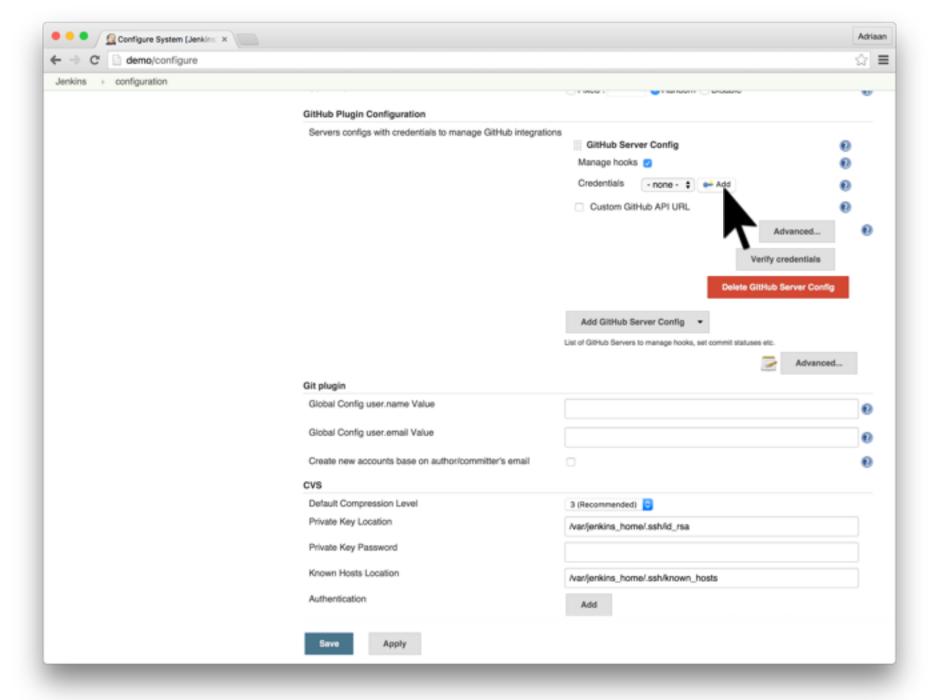


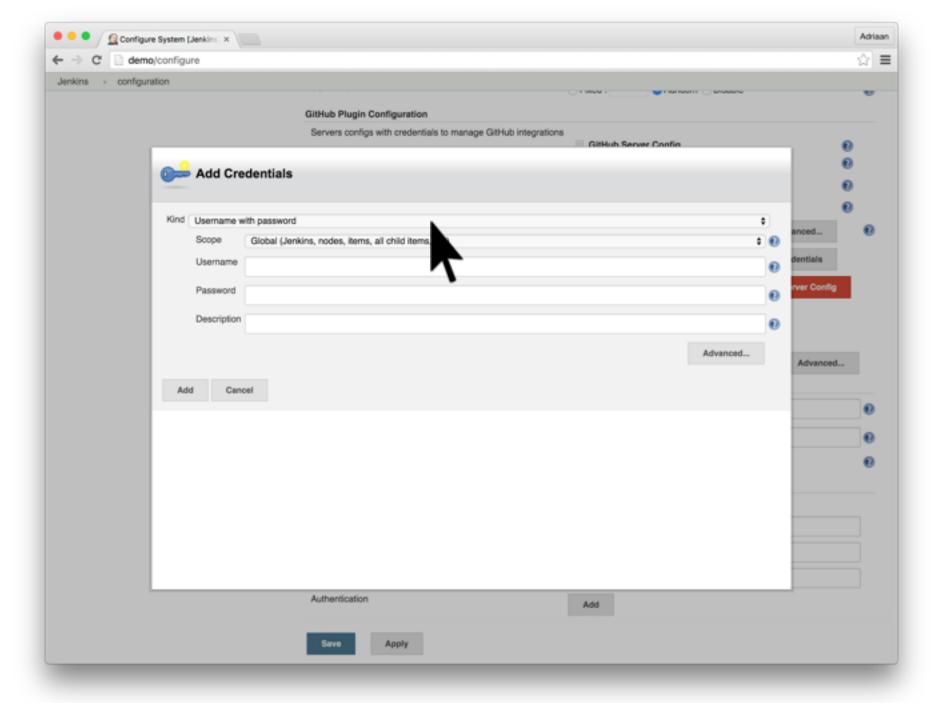


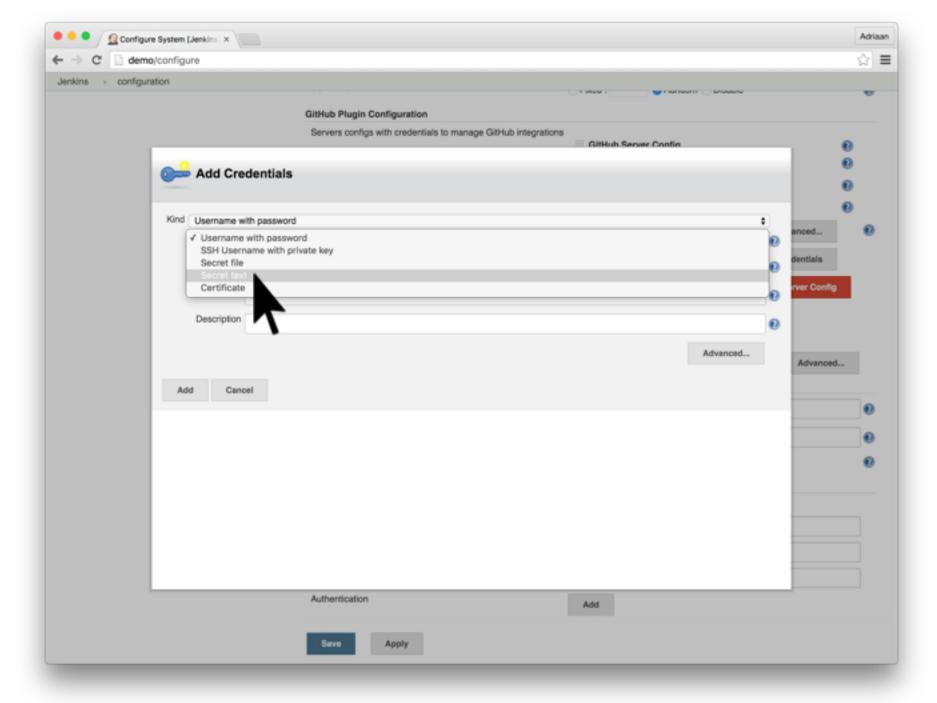


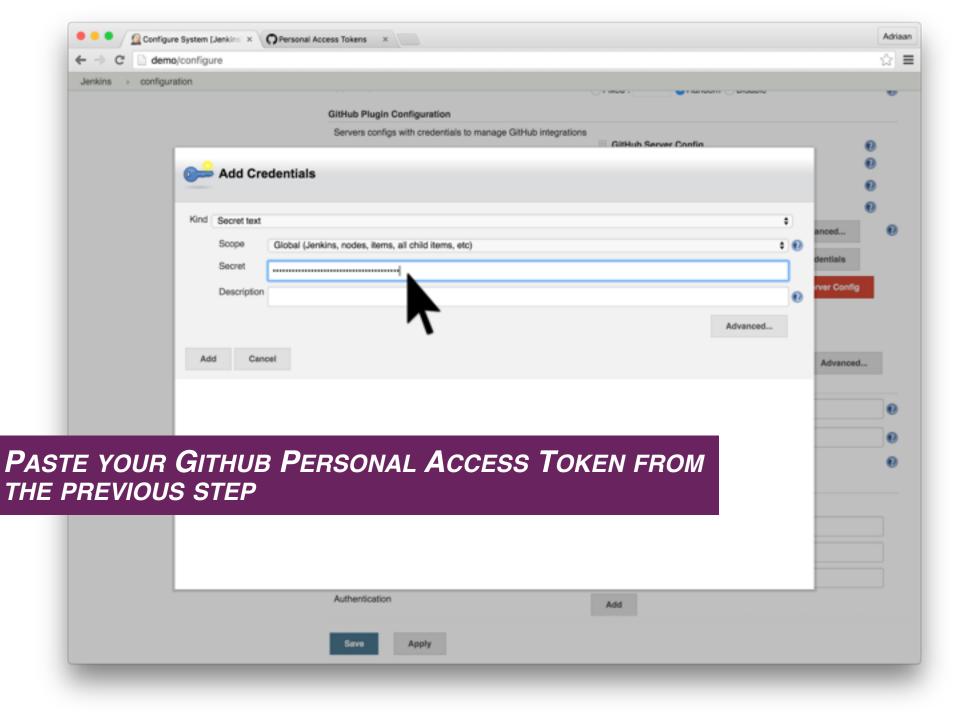


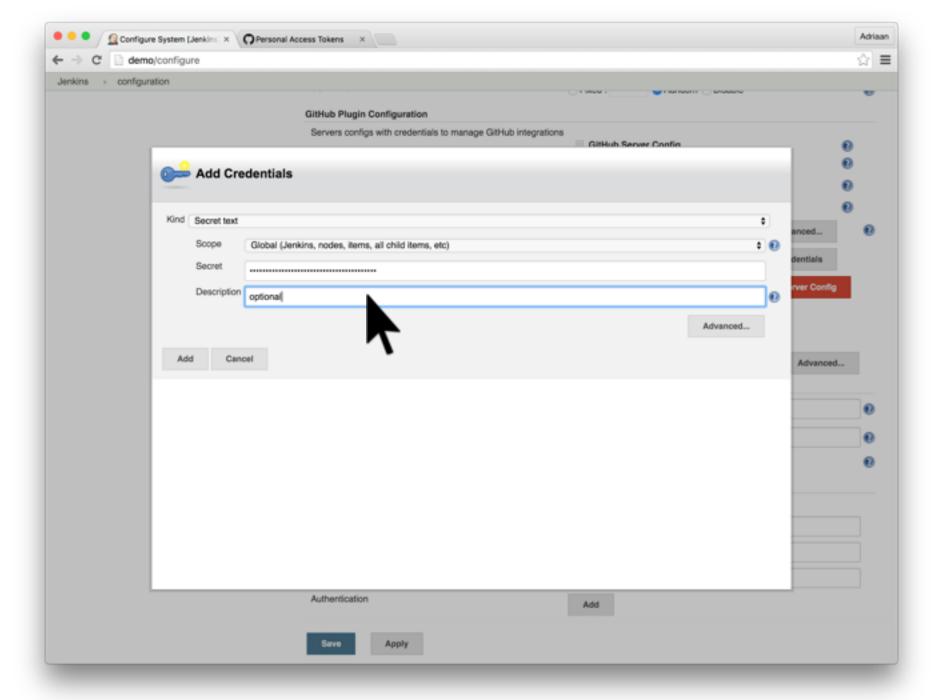


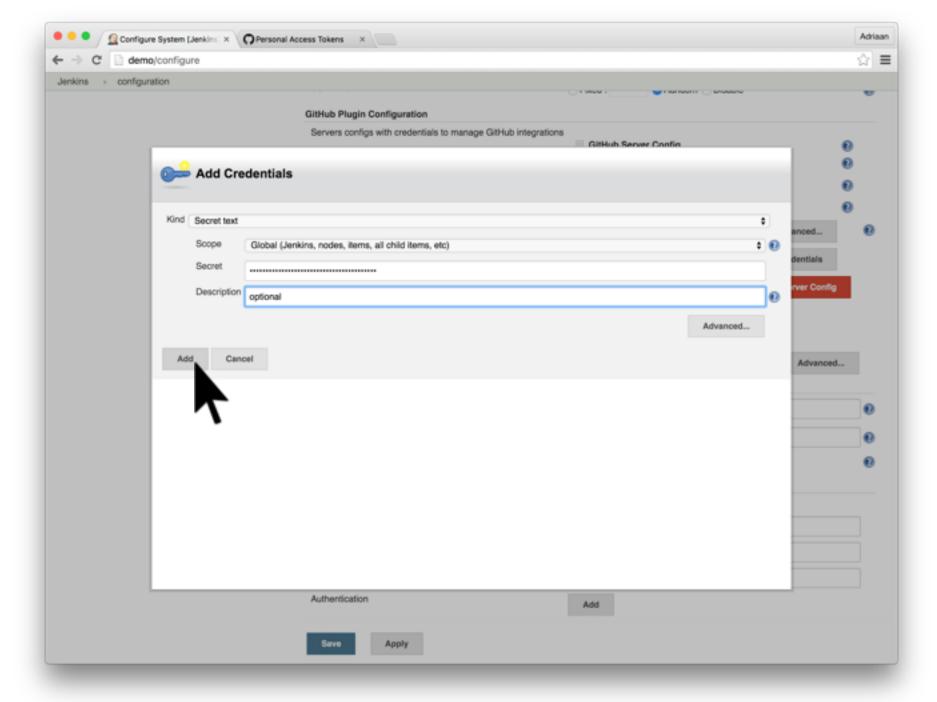


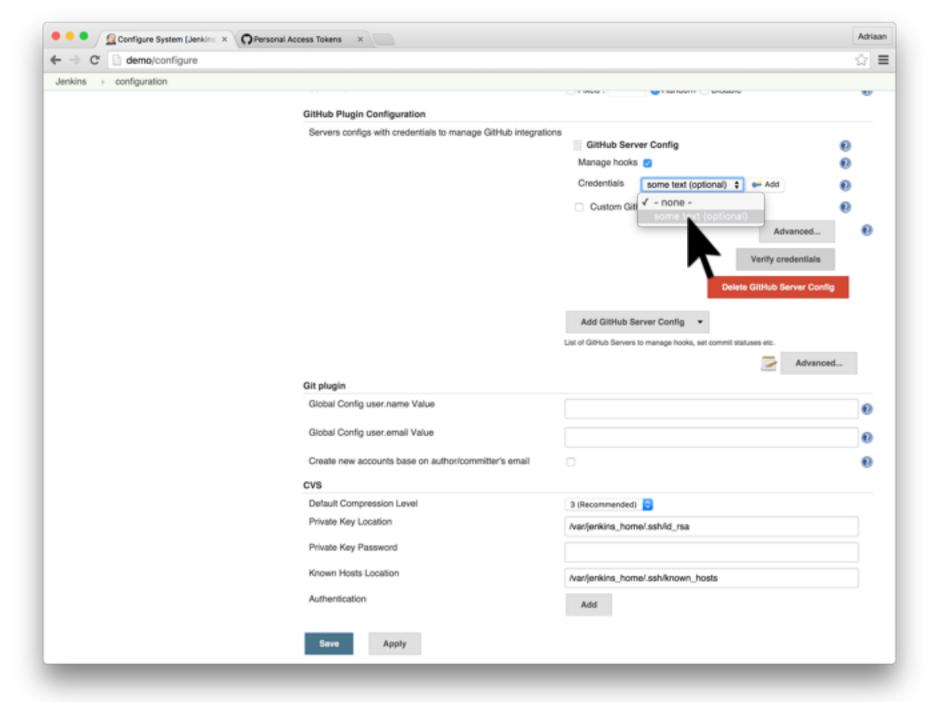


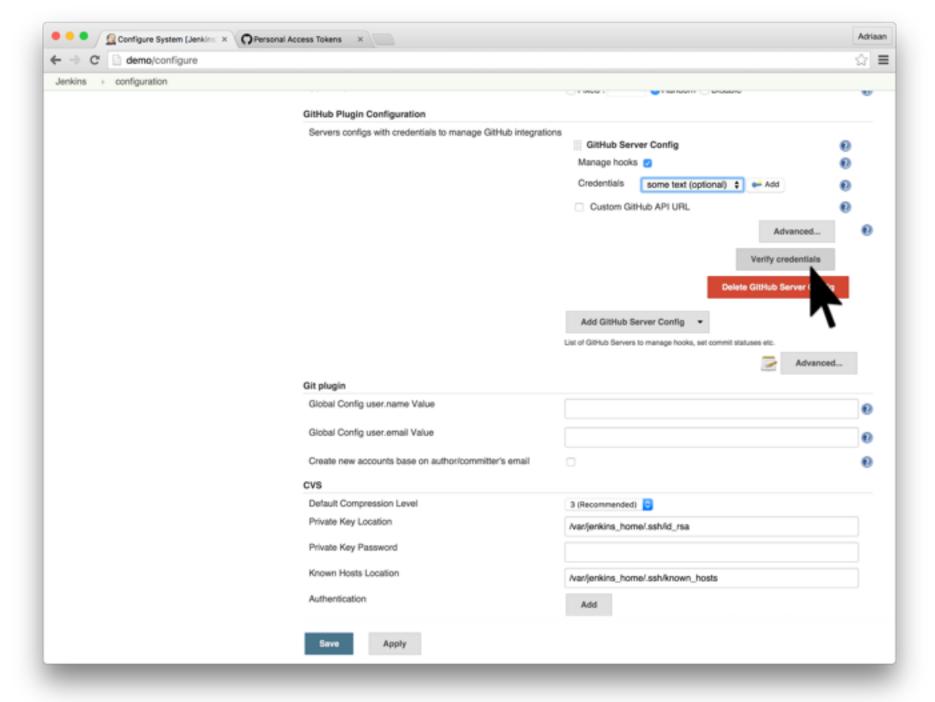


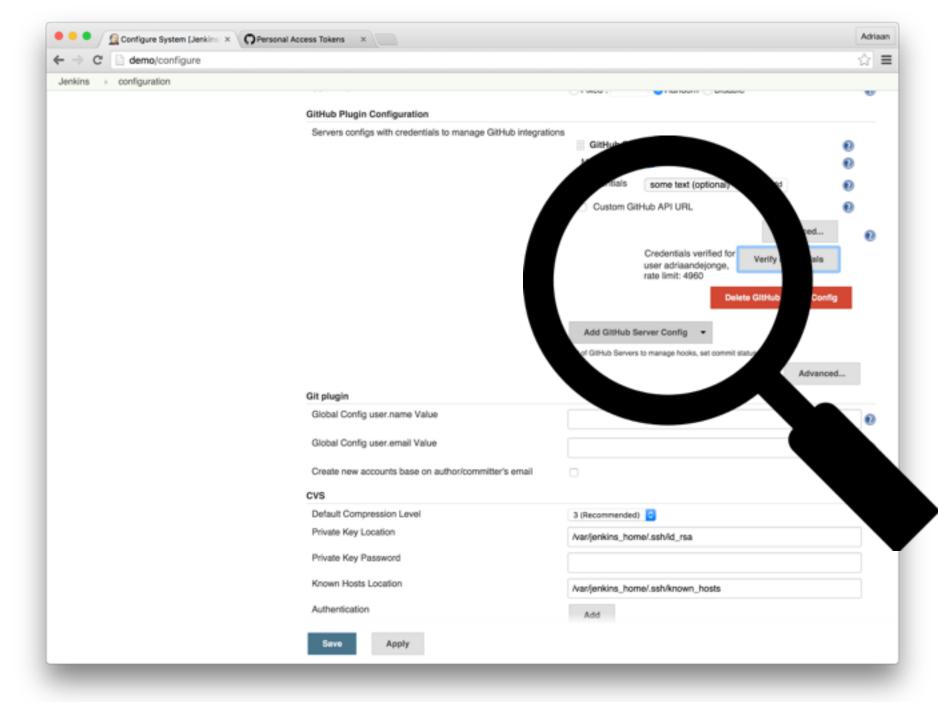


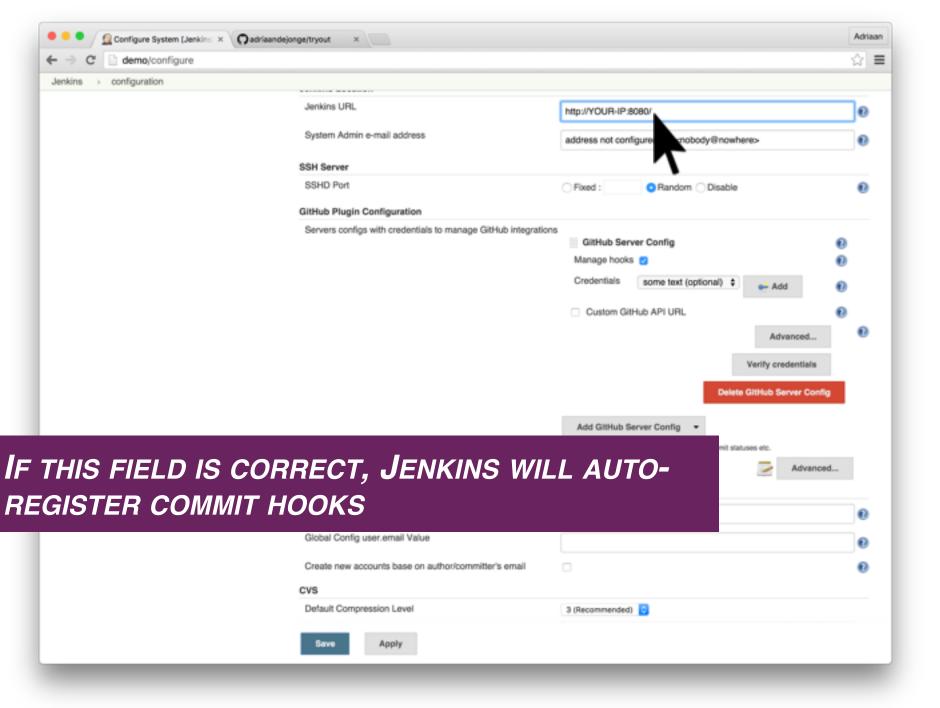




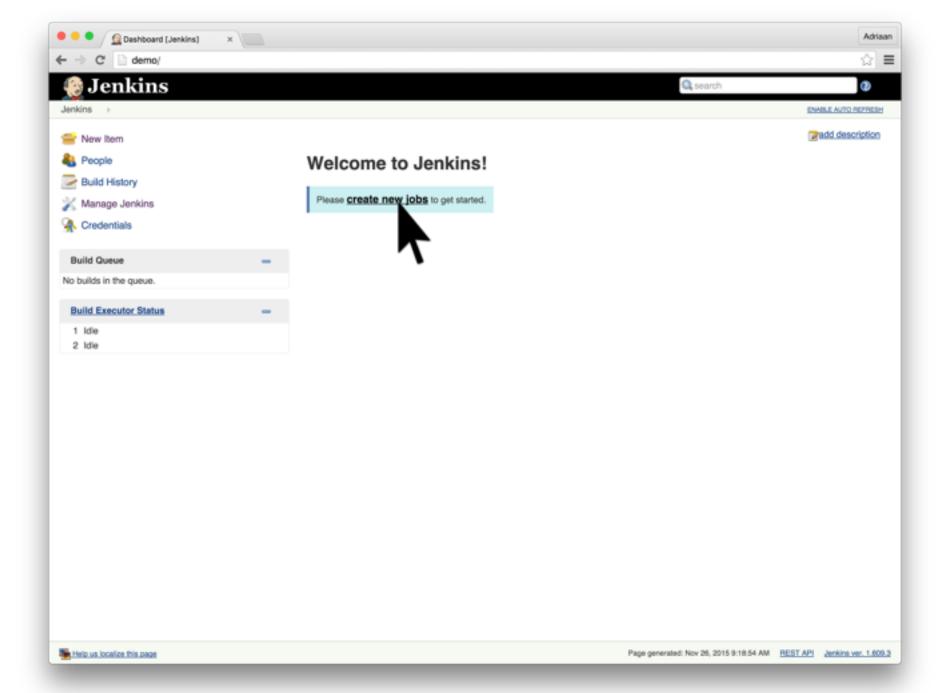


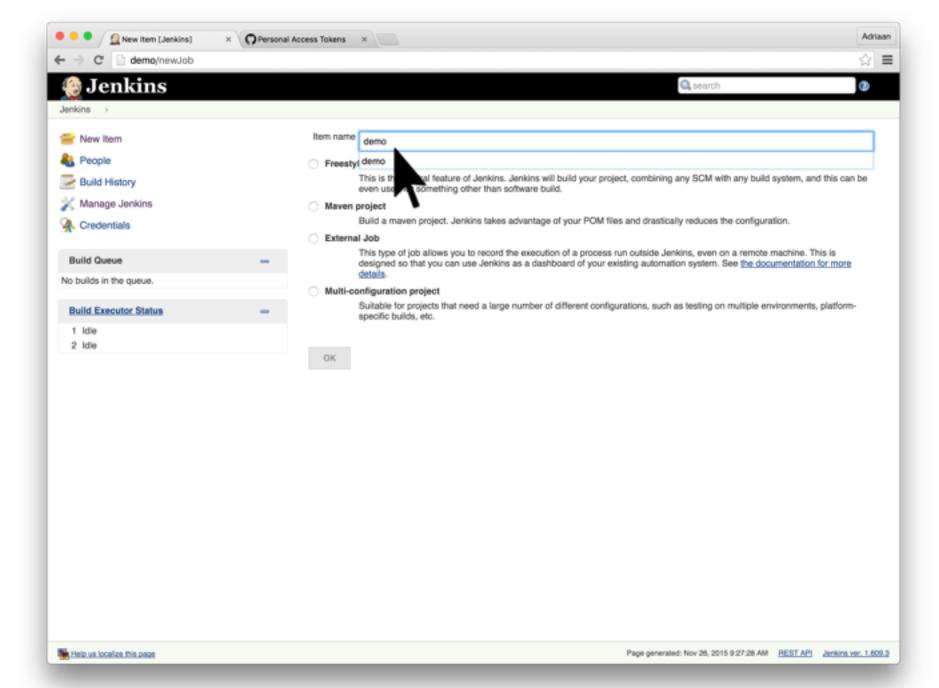


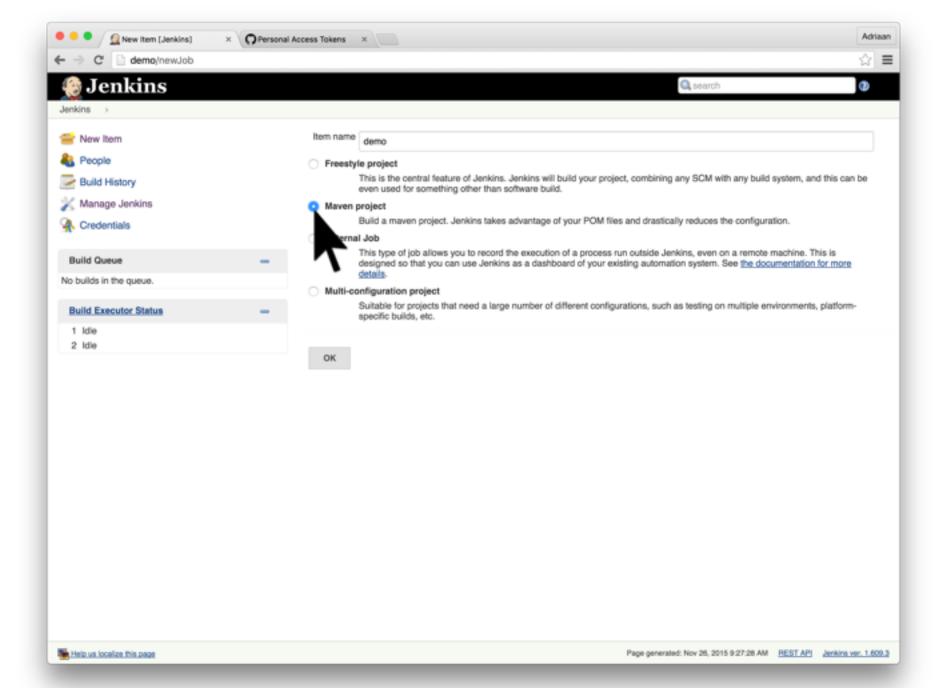


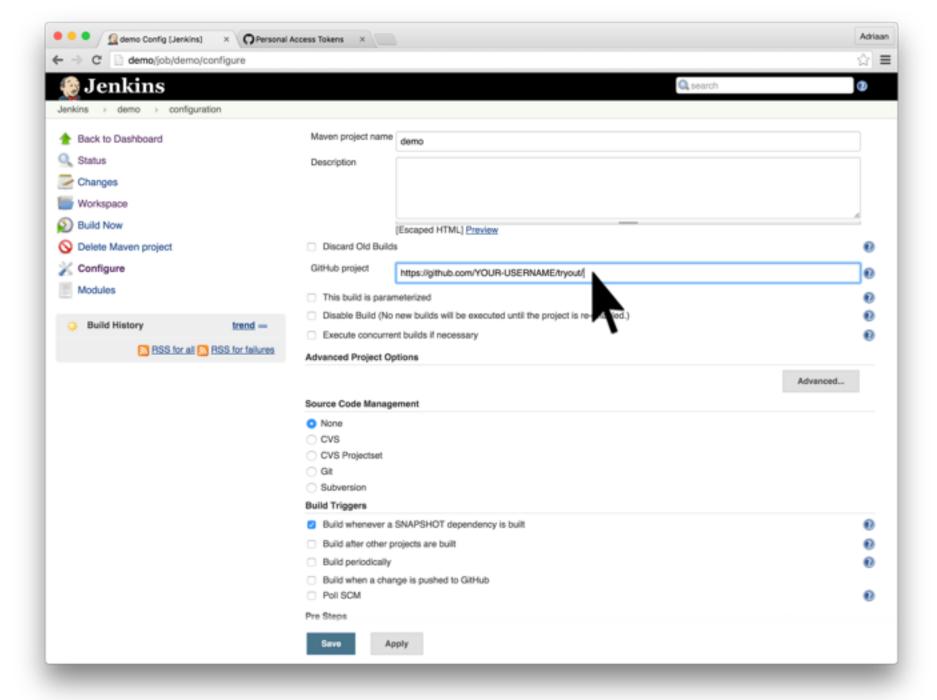


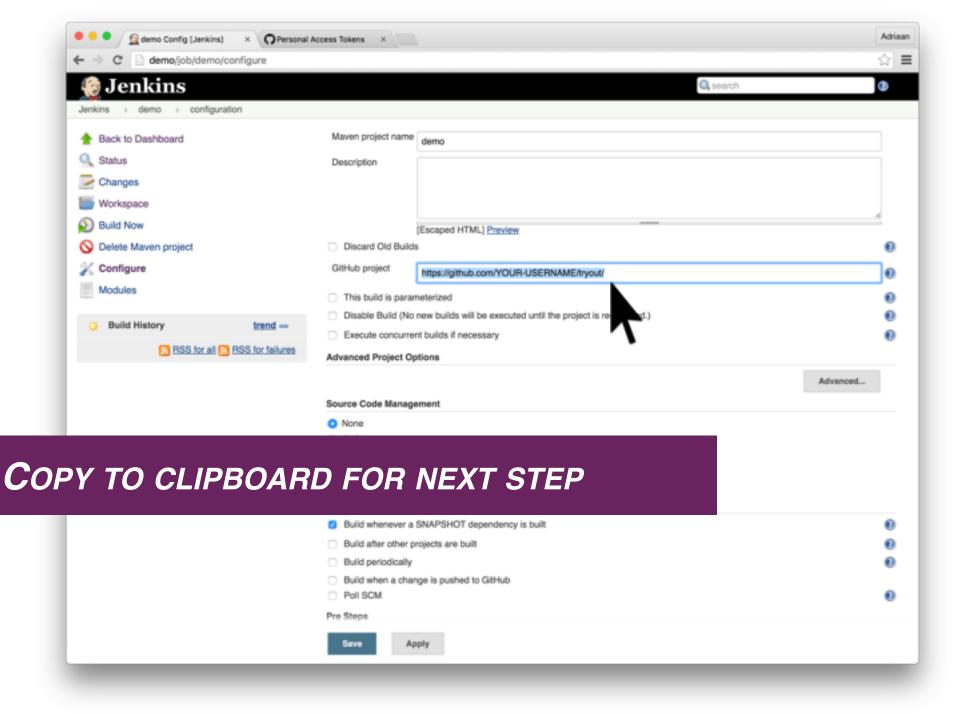
CREATE JENKINS JOB

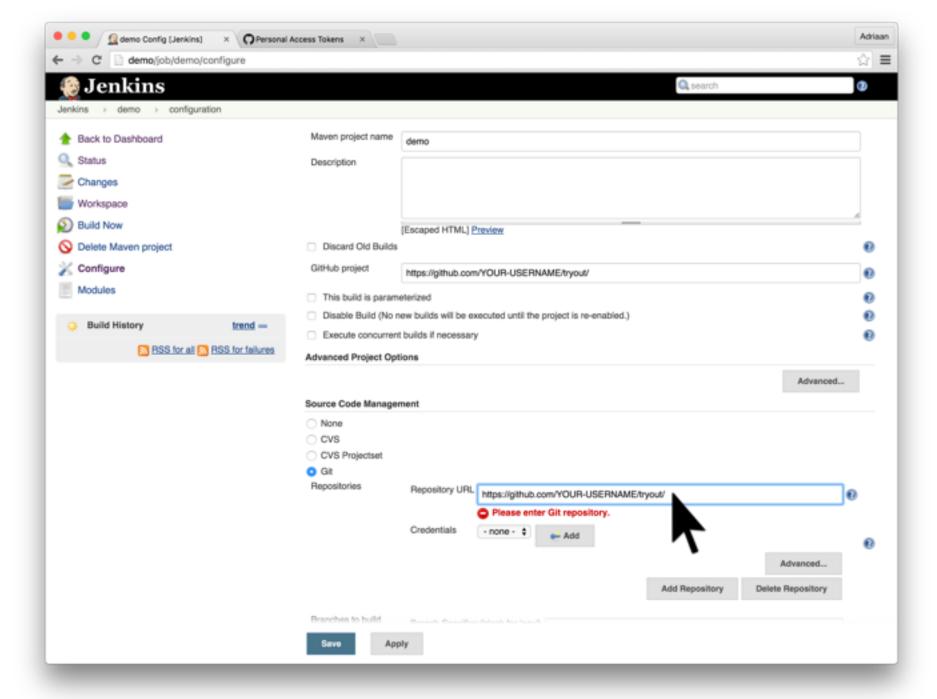


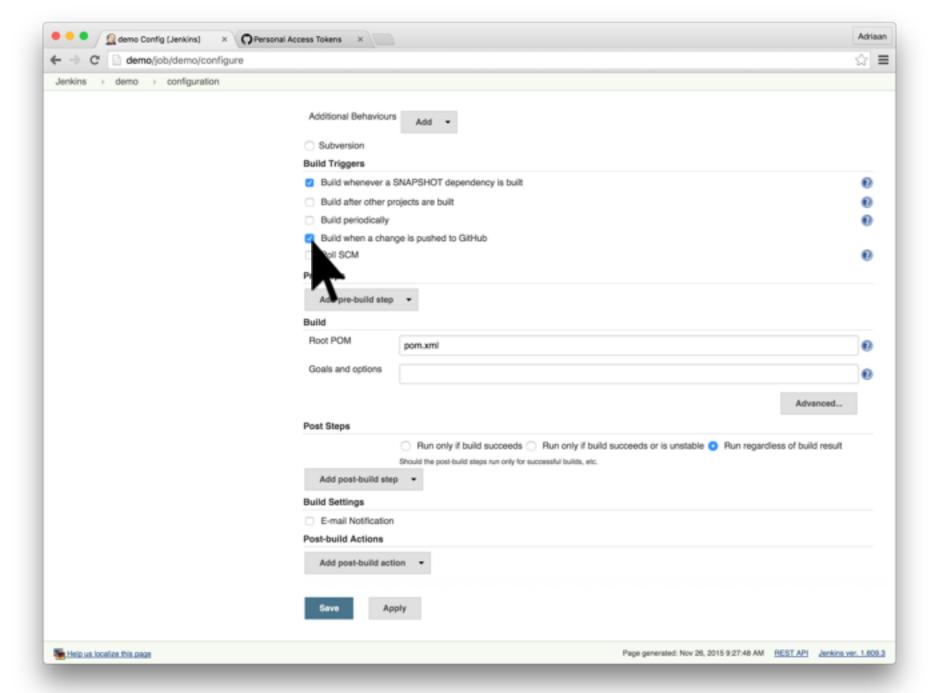


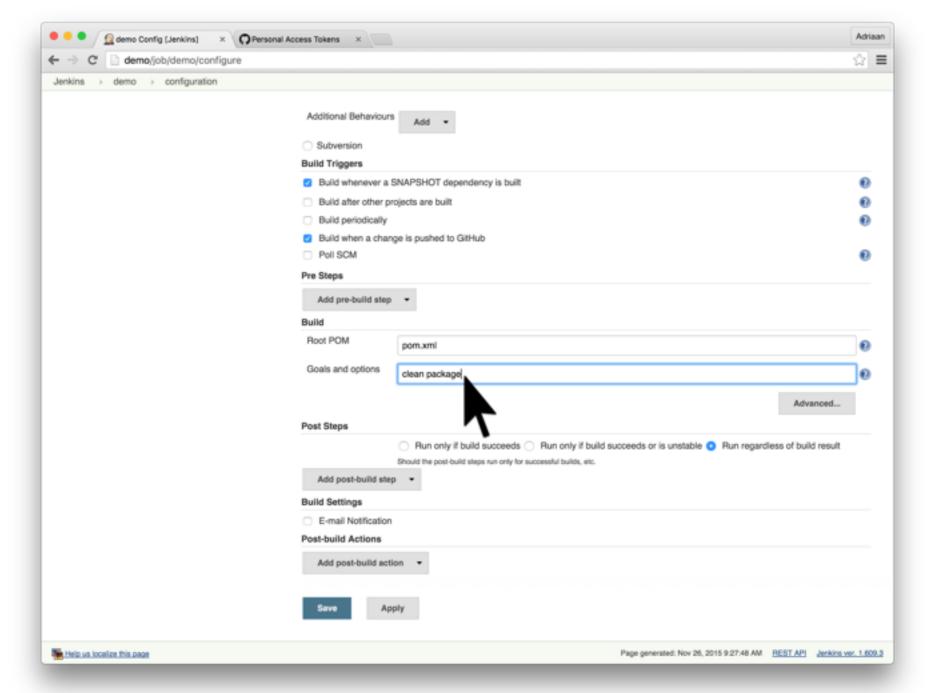


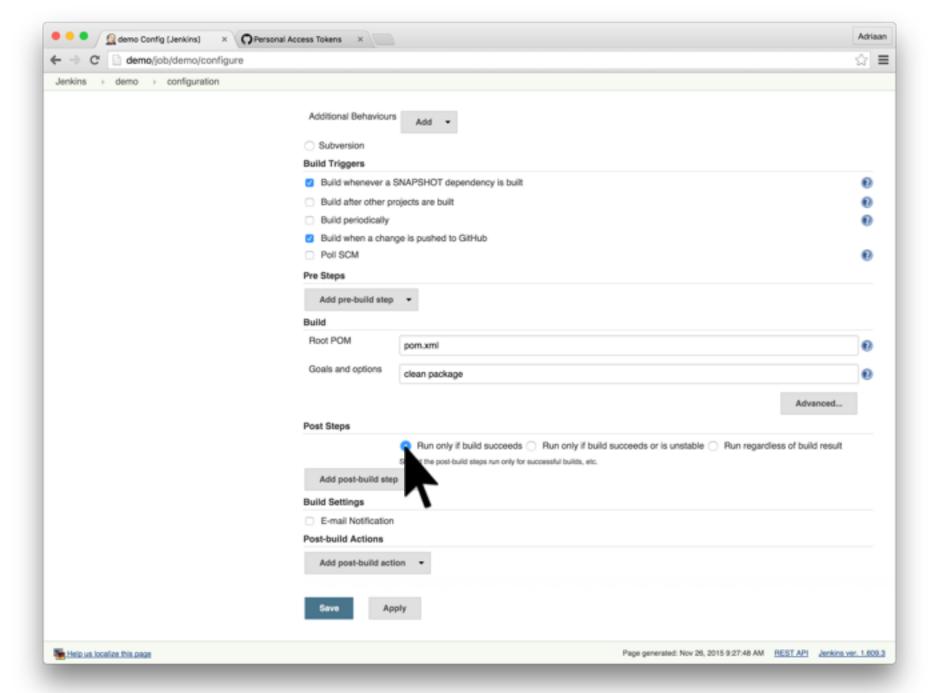


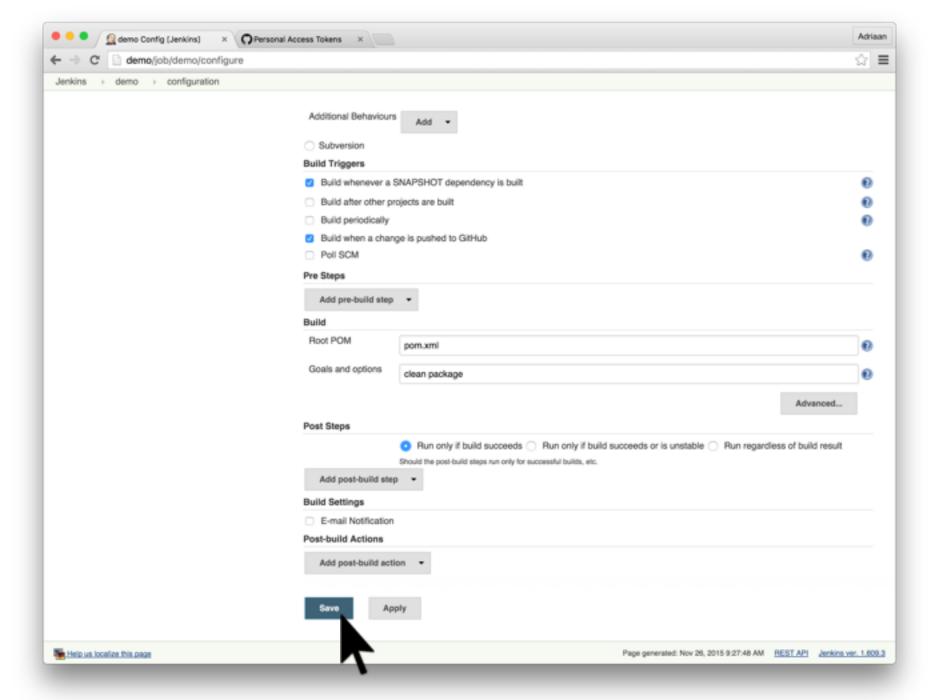


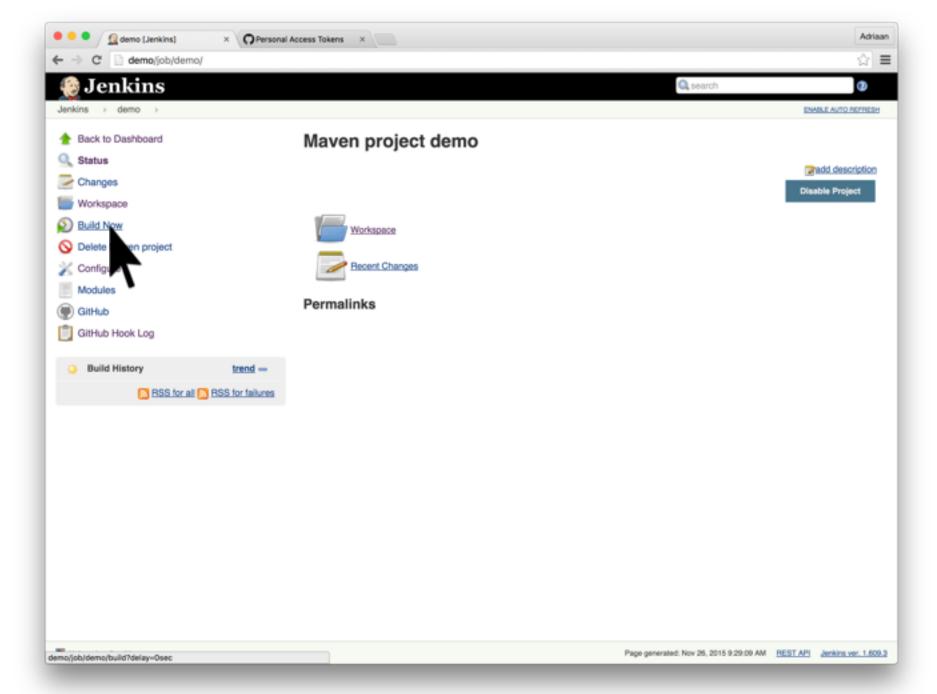


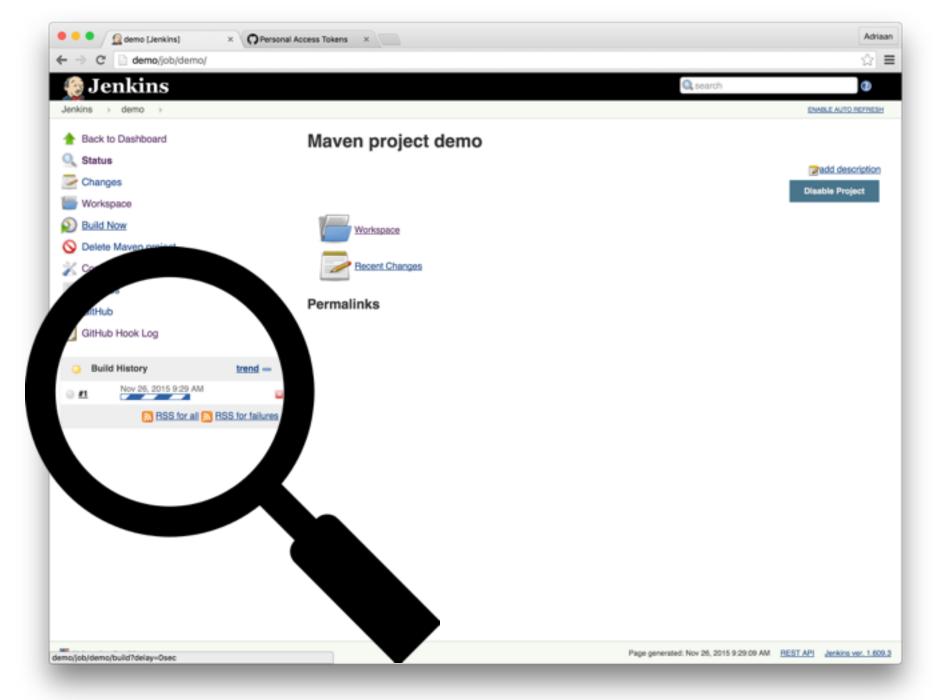


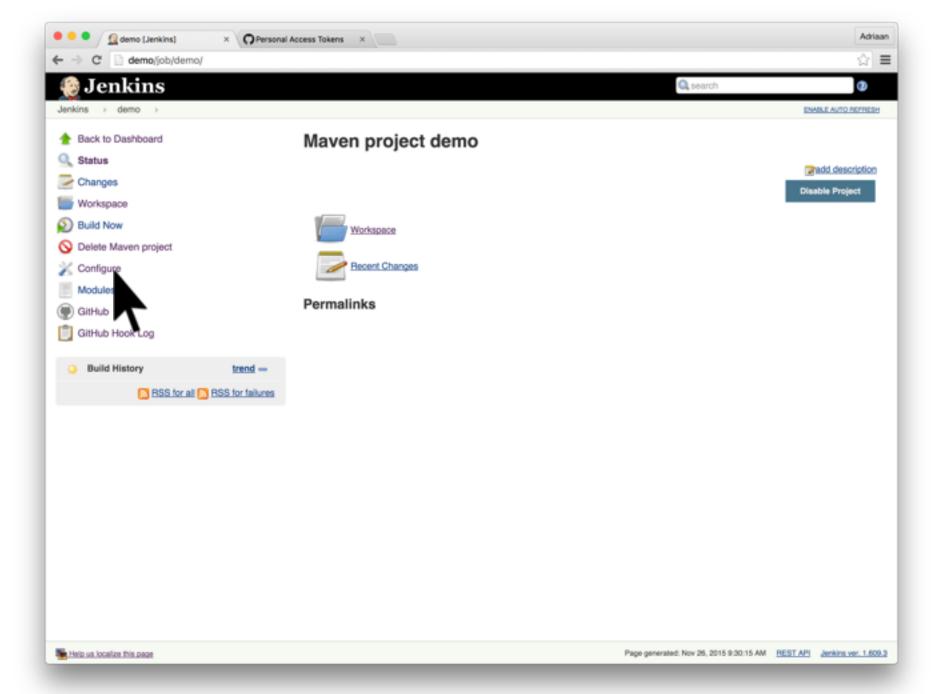


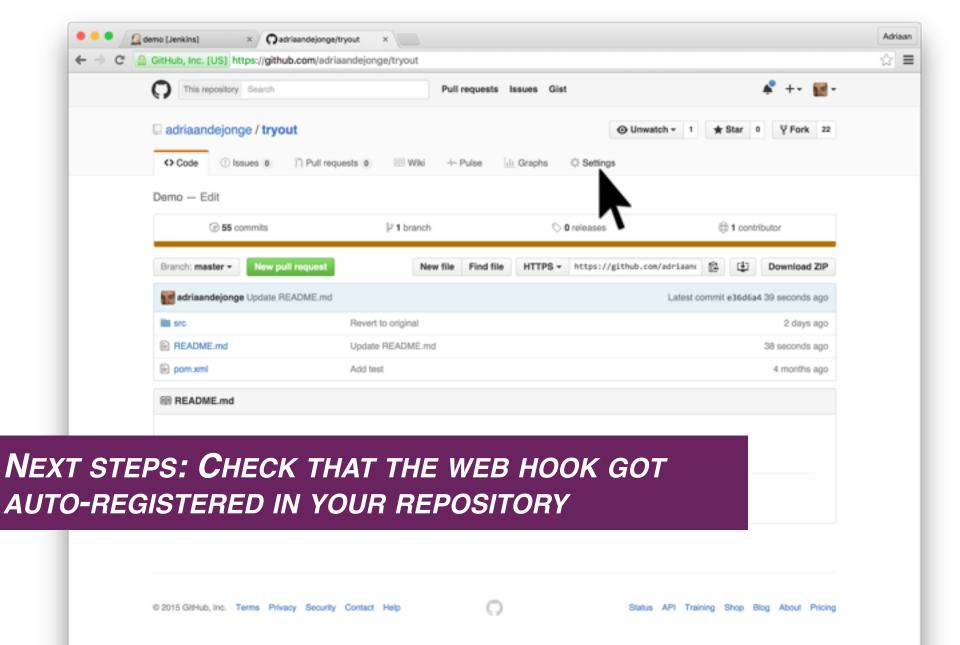




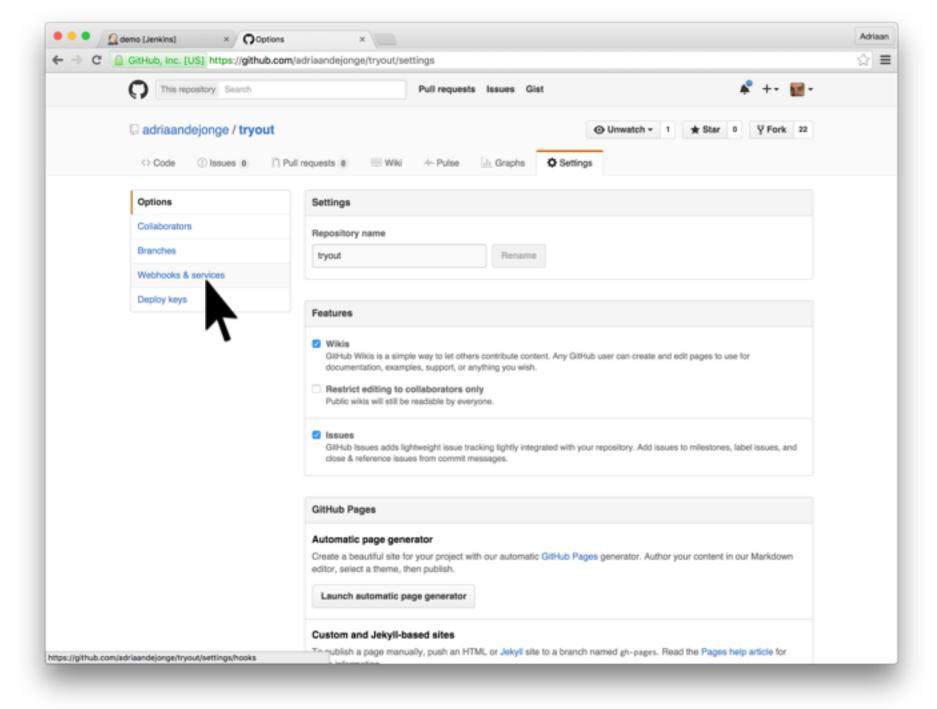


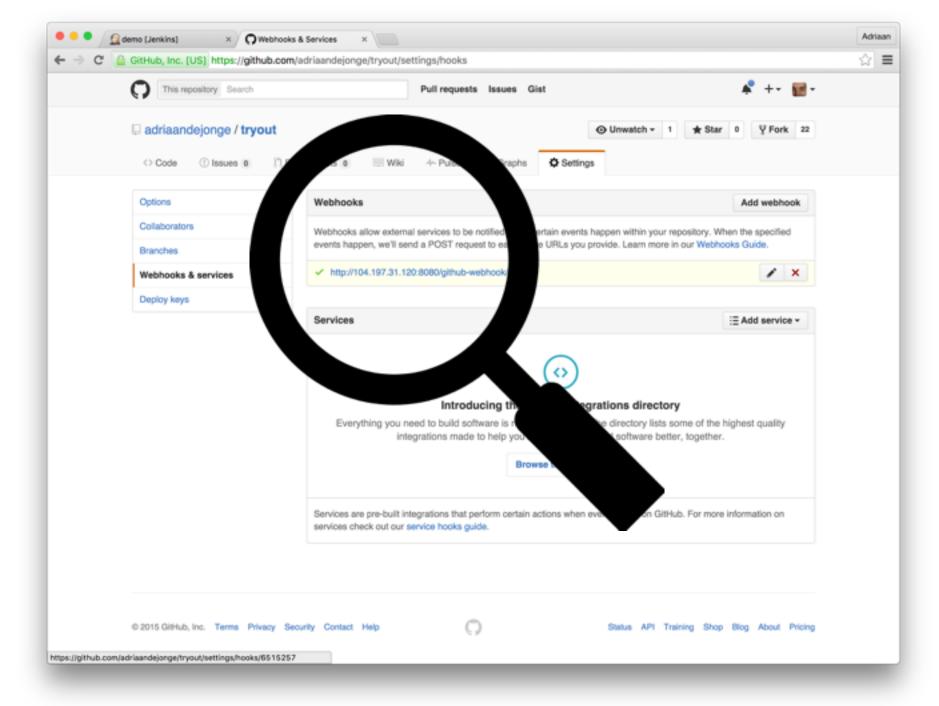






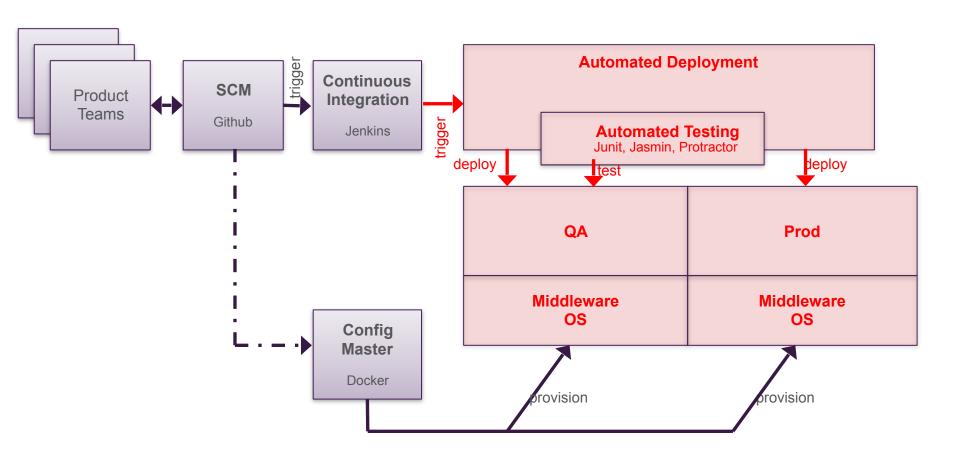
https://github.com/adriaandejonge/tryout/settings



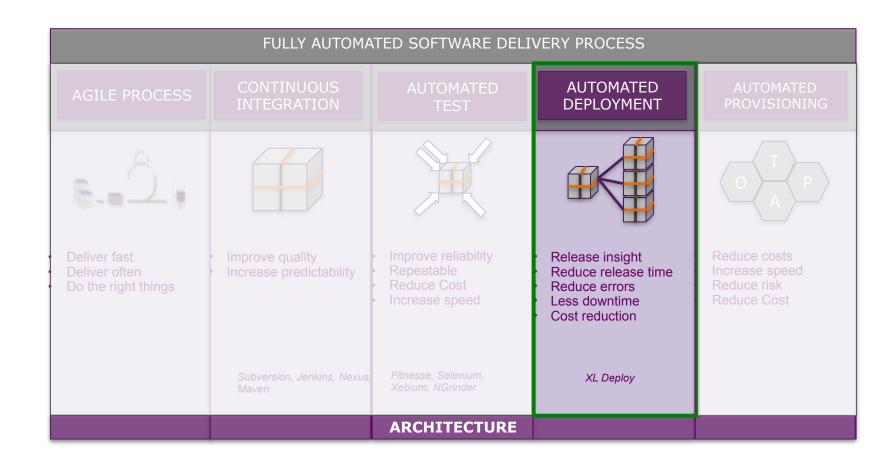




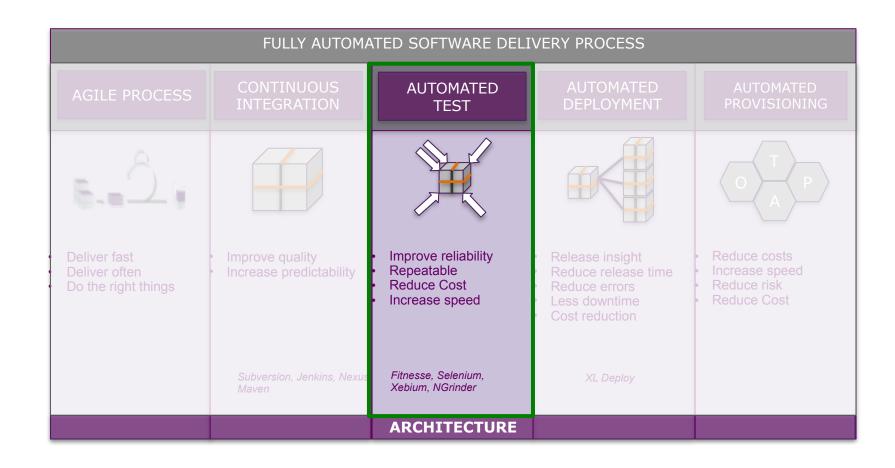
THE MISSING PARTS – SO FAR



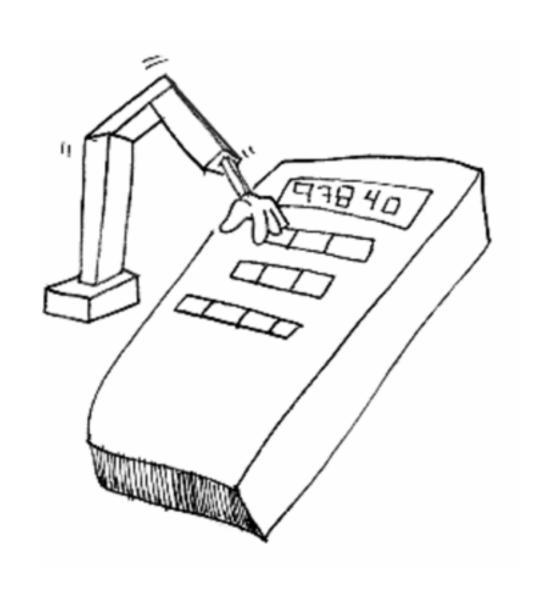
AUTOMATED DEPLOYMENT



TEST AUTOMATION



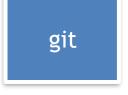
TEST AUTOMATION



TEST AUTOMATION Return on Investment Automated GUI Tests Automated API Tests Automated Integration Tests Automated Component Tests

Automated Unit Tests





Build

Deploy

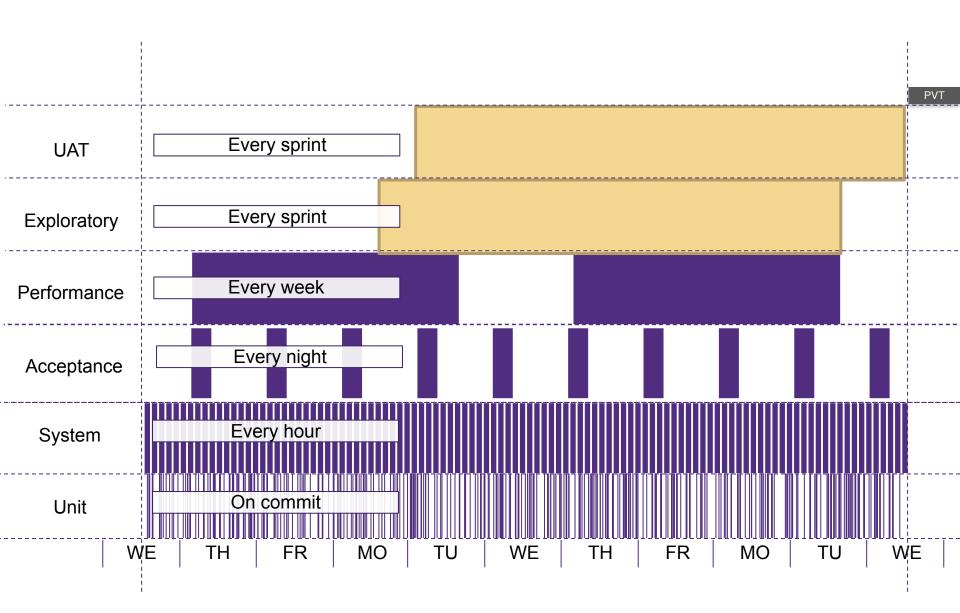
System Test Acceptanc e Test

Regression Test

Unit Test

Smoke Test

Integr Tst



TEST FRAMEWORK

Scenario: Login with valid credentials





```
package nl.stater.testframework.frameworks
import nl.stater.testframework.testrunners.selenium.pages.LoginPage;

import java.io.IOException;

public class LoginFixture {
    private LoginPage estate;
    public LoginFixture() throws IOException {
        estate = new LoginPage();
    }

public void loginWithUsernameAndPassword(String username, String password) {
        estate.init();
        estate.doLogin(username, password);
    }

public boolean userIsLoggedIn(String username) {
        return estate.isLoggedIn(username);
    }
}
```

CONNECT SCENARIO TO CODE

Scenario: Login with valid credentials

Gegeven een gebruikersaccount waarmee ingelogd kan worden Wanneer de gebruiker inlogt met de gebruikersaccount Dan is de gebruiker ingelogd

	Script		Login					
	login with username		sorobot001		and password		Amsterdam20	
	check		user		sorobo	001	is logg	ed in

```
pac age nl.stater.test ramework.fr meworks.fitness;
import nl.stater.testframework.testrunners.selenium.pages.LoginPage;
import java.io_IOException;

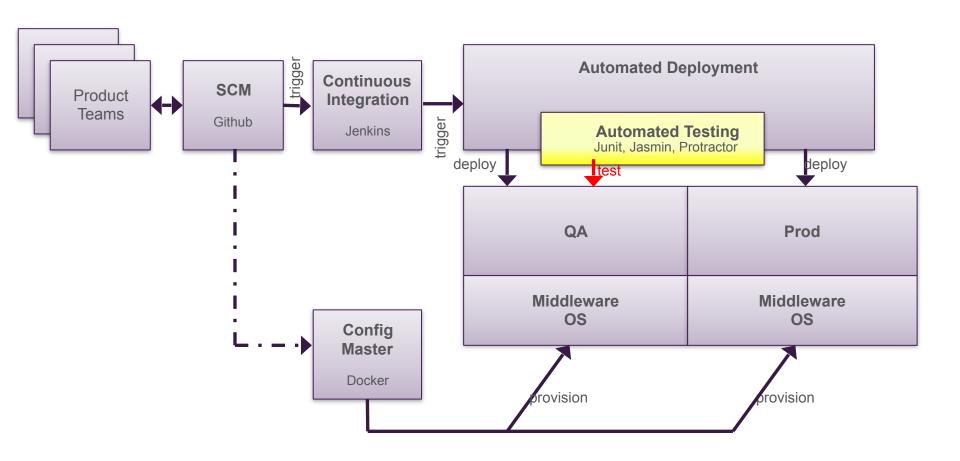
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        estate.dologin(username, password);
    }

public boolean userIsLoggedIn(String username) {
        return estate.isLoggedIn(username);
    }
}
```



THE MISSING PARTS – SO FAR



TRY THE TEST CASE MANUALLY