**Protractor - An Automation Testing Tool**

**What is protractor and its Importance**

Protractor is an end-to-end test framework for Angular and AngularJS applications. Protractor runs tests against your application running in a real browser, interacting with it as a user would.

**WebDriver + Angular Support = Protractor**

Protractor supports all things of selenium webdriver, and also supports angular websites. Selenium can also handle angular web application, but some features of angular need more scripting in selenium. That’s the importance of protractor.

Protractor is a stable and constant framework for angular apps. It is developed and maintained by angular.

**Languages Supported by Protractor**

Protractor is a Node JS program built on the top of WebDriverJS. It uses javascript as core language to develop tests. Jasmine is a unit testing framework for javascript and Cucumber is for typescript.

Typescript include javascipt and some additional features.

**Protractor Installation**

1. Download Node.JS
2. Set Node in system variable
3. Importance of npm(Node Package Manager)

Npm will connect to node repository for getting the desired packages.

Check ‘npm -v ‘ in command prompt.

1. Install Protractor

npm install -g protractor

‘g’ stands for global

The above command will install two command line tools such as protractor and webDriver manager. Protractor is to support angular components and webDriver is a helper tool to easily get an instance of a selenium server.

1. Update WebDriver JS

webdriver -manger update

1. Start Selenium Server

Selenium server will help you to connect the protractor commands to the browser to perform corresponding actions.

webdriver -manger start

**Getting started with Protractor**