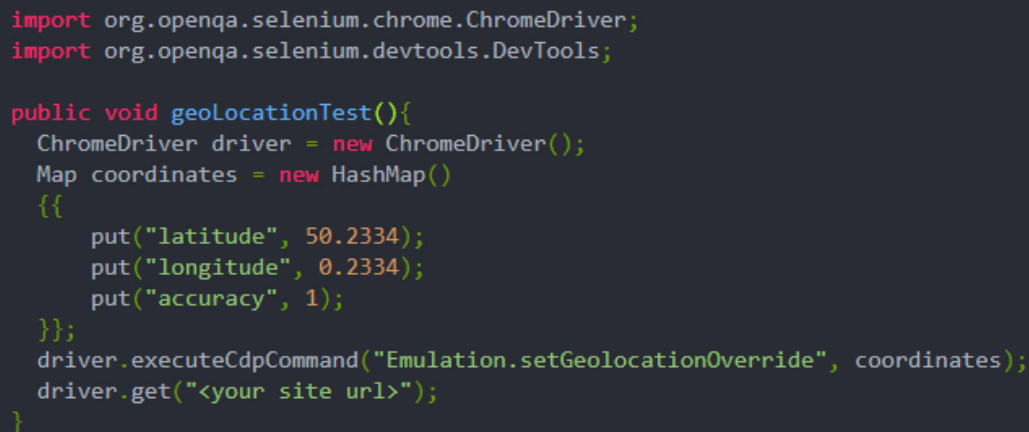


Selenium 4

How To Mock A Geolocation

In this session, I will show you how to mock a Geolocation using Selenium 4 CDP. Mock means imitate and Geolocation refers to the geographical location of a device connected to the internet. The device can be anything a phone, laptop, or even a watch. We use geolocation for events like finding the location of a place.

On [Selenium's site](#), we see Chrome DevTools, Emulate Geo Location, description and code to Emulate the Geo Location.

A screenshot of a code editor with a dark background and light-colored text. The code is in Java and demonstrates how to use Selenium 4 to mock geolocation. It includes imports for ChromeDriver and DevTools, a method named geoLocationTest, and a series of steps to create a ChromeDriver, set coordinates, and execute a CDP command to override the geolocation.

```
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.devtools.DevTools;

public void geoLocationTest(){
    ChromeDriver driver = new ChromeDriver();
    Map coordinates = new HashMap()
    {{
        put("latitude", 50.2334);
        put("longitude", 0.2334);
        put("accuracy", 1);
    }};
    driver.executeCdpCommand("Emulation.setGeolocationOverride", coordinates);
    driver.get("<your site url>");
}
```

The description says “Some applications have different features and functionalities across different locations. But with the help of DevTools, we can easily emulate them.” Depending on the application, we can see different information because the application is in a different location. With this help of the Chrome DevTools Protocol, the application can have the same information after mocking the geolocation. We can mock, well this site says emulate. We can emulate the geolocation by making our browser be in the same location. As a result, the application will have the same features and functionalities we are trying to test. For example, I live in Texas but on my project, I work with people who live in India. If our application showed different information in India then I would change my location to be in India. For this test, I’m going to make my browser be located in the capital of India. In this pom.xml file, I changed my Selenium 4 version to alpha 7.

```
<dependency>
  <groupId>org.seleniumhq.selenium</groupId>
  <artifactId>selenium-java</artifactId>
  <version>4.0.0-alpha-7</version>
</dependency>
```

From scratch, I'm going to write `@Test / public void mockGeoLocation () { }` set up our browser by writing `WebDriverManager.chromedriver().setup();` `ChromeDriver` is the type and `driver =` is the object `new ChromeDriver ();`. Maximize the window: `driver.manage().window().maximize();` / `driver.executeCdpCommand` has String `commandName` and Map for the parameters.

```
@Test
public void mockGeolocation () {
  WebDriverManager.chromedriver().setup();
  ChromeDriver driver = new ChromeDriver();
  driver.manage().window().maximize();
  driver.executeCdpCommand(
}
  executeCdpCommand(String commandName, Map<String, Object>
```

Ctrl+Down and Ctrl+Up will move caret down and up in the editor. [Next Tip](#)

In the sample code, the command is `Emulation.setGeolocationOverride` and coordinates for the Map. The coordinates are latitude, longitude, and accuracy. For more information, we can go to github. The url is <https://chromedevtools.github.io/devtools-protocol/>, search for Geo and we see `Emulation.setGeolocationOverride` with a description that says Overrides the Geolocation Position or Error. We see all 3 parameters: latitude, longitude, and accuracy.

Chrome DevTools Protocol Geo

Emulation.clearGeolocationOverride

Clears the overridden Geolocation Position and Error.

Emulation.setGeolocationOverride

Overrides the Geolocation Position or Error. Omitting any of the parameters emulates position unavailable.

Page.clearGeolocationOverride

Clears the overridden Geolocation Position and Error.

Page.setGeolocationOverride

Overrides the Geolocation Position or Error. Omitting any of the parameters emulates position unavailable.

Emulation.setGeolocationOverride

Overrides the Geolocation Position or Error. Omitting any of the parameters emulates position unavailable.

PARAMETERS

latitude optional	number Mock latitude
longitude optional	number Mock longitude
accuracy optional	number Mock accuracy

I'm going to set my geolocation to be at New Delhi. We see the coordinates are 28.6139 for latitude and 77.2090 for longitude. Latitude is always first. We see N for Latitude because the direction is North or South. E for Longitude because the direction is East or West. Our application under test is [Where Am I Right Now](#). I guess this site is accurate. The location is half a mile from my house. We see TX for Texas.

Now, let's go ahead and complete our script. 1st parameter is String commandName. We saw Emulation.setGeolocationOverride. The 2nd parameter was a Map and copy this code from Selenium's site and paste it to our code. Change latitude to 28.6139 and longitude is 77.2090, leave accuracy at 1. Now, I can pass in coordinates. Last step, is to load the Application Under Test:
driver.get("https://where-am-i.org/");

```
Map coordinates = new HashMap()
{{
    put("latitude", 28.6139);
    put("longitude", 77.2090);
    put("accuracy", 1);
}};
driver.executeCdpCommand(
    commandName: "Emulation.setGeolocationOverride", coordinates);
driver.get("https://where-am-i.org/");|
```

Now, let's Run. We see New Delhi for Location. We see Latitude and Longitude. Also, here's the map.

Your Location

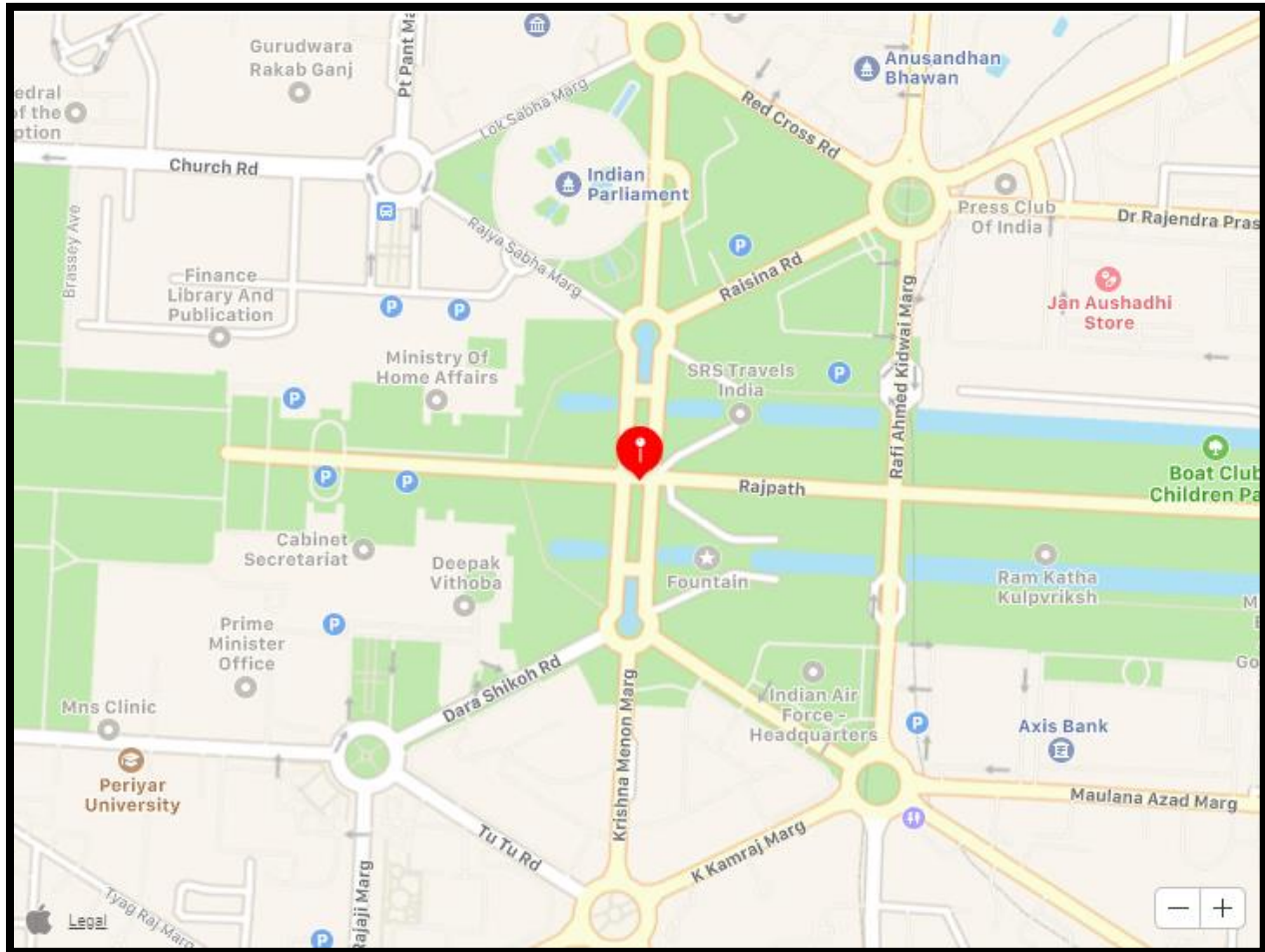
Rajpath, Central Secretariat, New Delhi,
110001, Delhi, India

Your Latitude and Longitude

28.6139
77.209

DMS (degrees, minutes, seconds)

N 28 ° 36 ' 50.04 "
E 77 ° 12 ' 32.4 "



Thanks for watching and I'll see you in the next session for enabling the network.

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