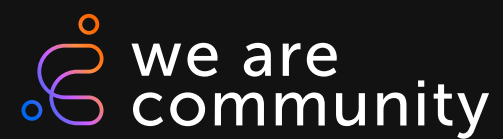


# Selenium 4

New features and 🚀🚀🚀🚀 included

SRI HARSHA



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Nov. 8th, 2022


# Sri Harsha


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I ❤️ JavaScript and Will code for cup of ☕☕☕☕

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# Top Three Selenium Features



WebAuth is an API enables servers to register and authenticate user using public key cryptography instead of password.

WebAuth standard is a universally accepted W3C standard.

Public-key based authentication

Protection against phishing

Invulnerable to password attacks

Less Impact on data breaches

WebAuth in Action with WebAuthn.io

More info on WebAuth at  
<https://www.w3.org/TR/webauthn-2/>

## 2. WebDriver BiDi



# WebDriver

Selenium WebDriver (commonly referred to as just WebDriver) was released in 2011.

It allows users to automate browsers with WebDriverAPI.

WebDriver has been a standard solution for cross-browsing testing in web development ever since then.

## PROS

- W3C Standard
- Cross Browser API

## CONS

- HTTP Model
- Pull-Model
- New Connection

# CDP

CDP was developed to communicate between Chrome and DevTools.

## PROS

- Open Source
- Extensible

## CONS

- Not Standard
- Applicable to chromium based browsers
- Designed for DevTools and not for test

# WebDriver BiDi

A New Browser Automation protocol

The idea of WebDriver BiDi is to make a new standard protocol for browser automation, which will be based on the bidirectional transport protocol (WebSocket or pipes).

The idea is to get the best from 2 worlds: WebDriver and CDP.

# WebDriver BiDi

A New Browser Automation protocol

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The idea is to get the best from 2 worlds: WebDriver and CDP.

# Advantages

## PROS

- W3C standardisation
- Reduces CDP complexity

## APPLICATIONS

- Mobile device emulation
- Geolocation emulation
- Network listeners

## LIMITATIONS

- Implementation In Progress (but available in beta)

More at <https://w3c.github.io/webdriver-bidi/>

# 3. Selenium Manager

Automatic Driver Management

    Included in Selenium 4.6.0

# SeleniumManager 4.6.0

- Developed in Rust
- A CLI tool
- Beta 1
- Integrated in Selenium 4.6.0
- No need of downloading driver and placing in path
- No need of driver management library in Selenium Ecosystem
- Binaries available at <https://github.com/SeleniumHQ/selenium/tree/trunk/common/manager>

# SeleniumManager Demo

A demo on chrome, Firefox and Edge with Java Bindings



# SeleniumManager CLI and options

A view of supported options and usage

Next Steps