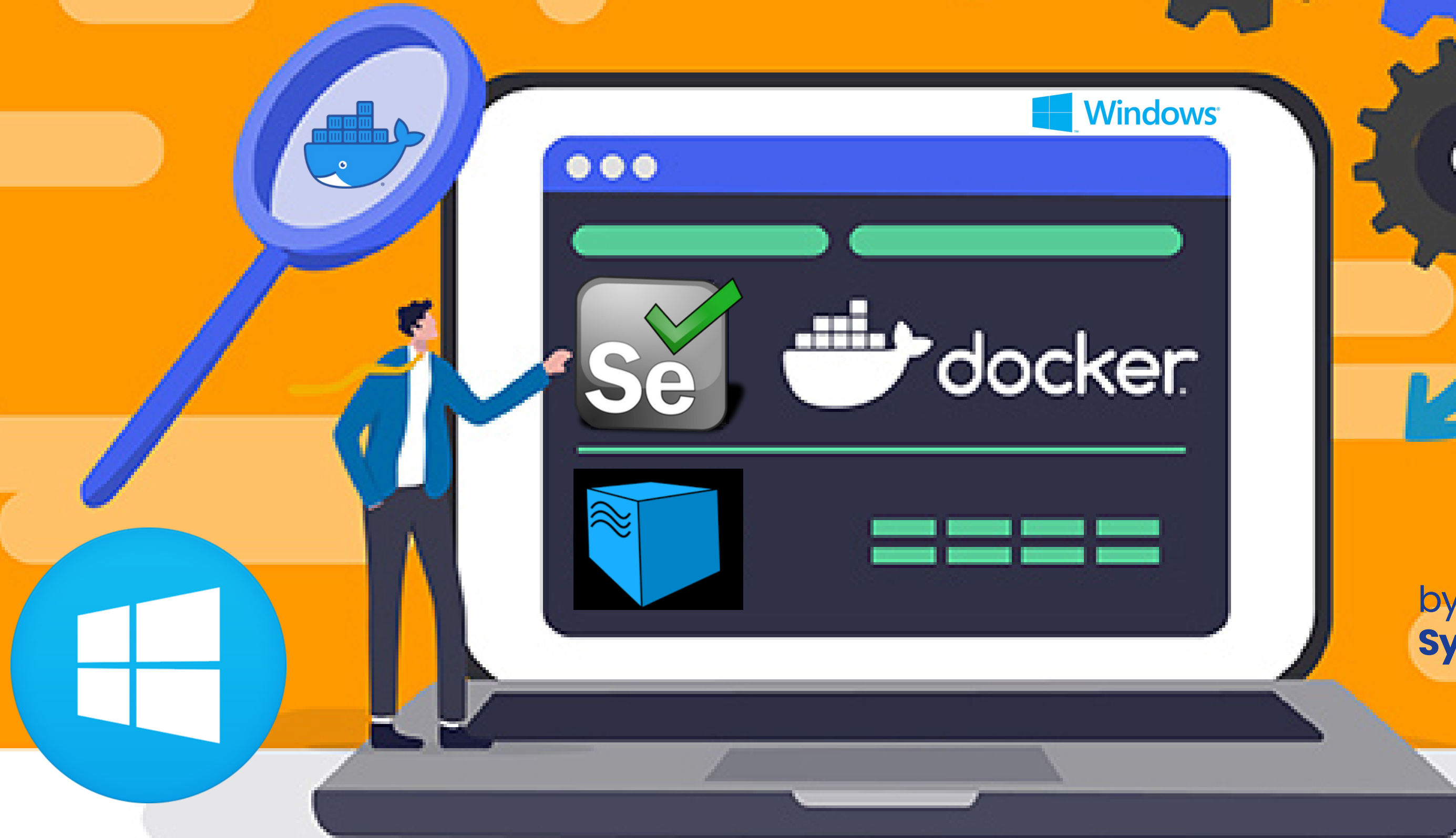


# SELENOID



by  
**Syed Hassan Anwer**

# Intro

## Selenium

An open-source framework and suite of tools used for automating web browsers

## Docker

Docker is a platform for developing, shipping, and running applications inside containers.

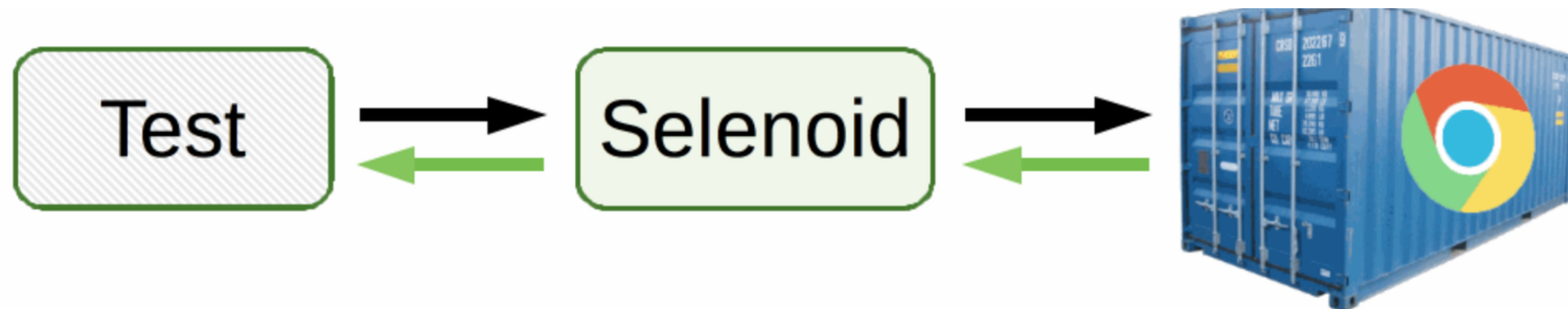
## Selenoid

Selenoid is an open-source, container-based solution used for running Selenium tests in a distributed and scalable manner.



# Selenium Using docker

- Containerization
- Image Management
- On-Demand Containers
- Session Control
- Parallel Execution



# Working of Selenium



Containerization



Browser Management



Test Execution



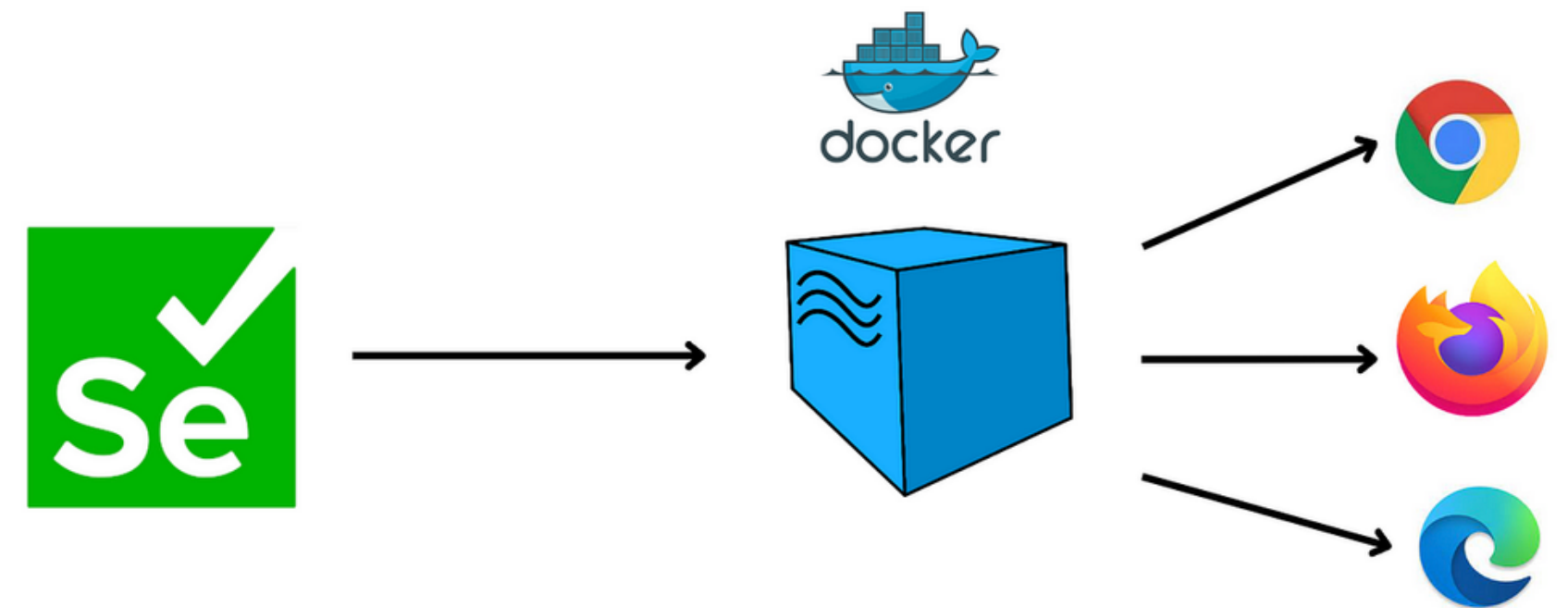
Parallel Testing



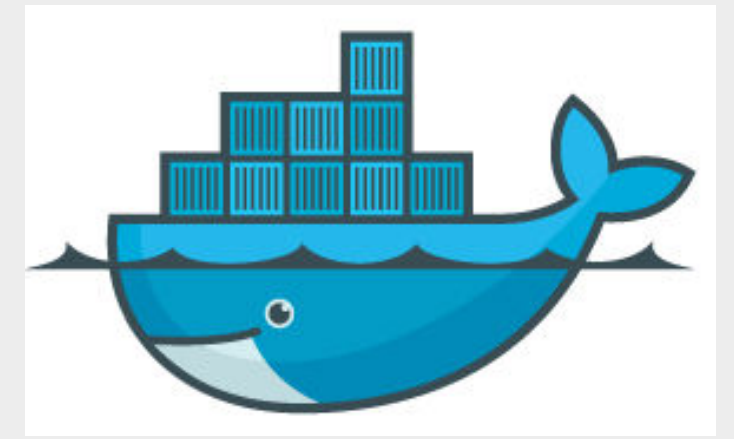
Logs and Video Recording



Configuration



# Steps to Setup



**01** Creating Config file "browsers.json"

**02** Pull required docker images

**03** Spinning up the containers

**04** Prepare code and Tests

**05** Viewing live preview

**06** Accessing videos

# Docker Images for Setting up Selenium

```
DOCKER PULL AEROKUBE/SELENOID:LATEST
```

```
DOCKER PULL AEROKUBE/CM:LATEST-RELEASE
```

```
DOCKER PULL AEROKUBE/SELENOID-UI
```

```
DOCKER PULL SELENOID/VIDEO-RECORDER:LATEST
```

```
SELENOID/VNC_CHROME:84 AND WHATEVER THE VERSION YOU NEED
```

```
DOCKER PULL SELENOID/VNC_FIREFOX
```

```
SELENOID/ANDROID AND WHATEVER THE VERSION YOU NEED
```

# Commands

## Step 1

```
$current = $PWD -replace "\\ ", "/" -replace "C", "c"
```

## Step 2

```
docker run -d --name selenoid -p 4444:4444 -v //var/run/docker.sock:/var/run/docker.sock -v  
${current}/config:/etc/selenoid/:ro -v /Path to selenoid video folder:/opt/selenoid/video/ -e  
OVERRIDE_VIDEO_OUTPUT_DIR=/path to selenoid video folder/ aerokube/selenoid:latest-release
```

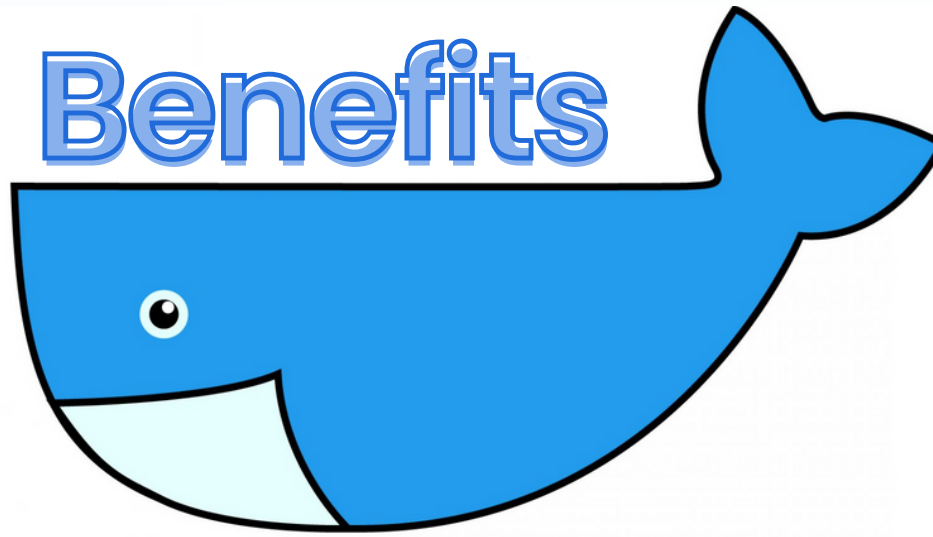
## Step 3

```
docker run --rm -d --name selenoid-ui --link selenoid -p 8090:8080 aerokube/selenoid-ui --  
selenoid-uri=http://selenoid:4444
```

## Step 4

```
docker run -d --name selenoid -p 4444:4444 -v //var/run/docker.sock:/var/run/docker.sock -v  
${current}/config:/etc/selenoid/:ro -v /Path to selenoid video folder:/opt/selenoid/video/ -e  
OVERRIDE_VIDEO_OUTPUT_DIR=/path to selenoid video folder/ aerokube/selenoid:latest-release  
-limit 10
```

# Benefits



**Speed and Performance**



**Isolated Environment**



**Easy Configuration**



**Multiple browsers version support.**



**Parallel Execution**



**Fast and simple installation.**



# Selenium Running

**01 Setup & Configuration**

**02 Test Script Creation**

**03 Request Browser Session**

**04 Selenium Provisioning**

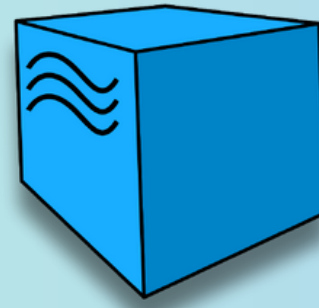
**05 Test Execution**

**06 Parallel Testing**

**07 Logs & Video Record**

**09 Test Completion**

**10 CleanUp**



## Selenoid

- **Architecture**
- **Resource Efficiency**
- **Quick Test Setup**
- **Scalability**
- **Cross-Browser Testing**
- **Video Recording**
- **Screenshots**
- **Configuration Simplicity**
- **WebDriver Compatibility**
- **Community Support**
- **Parallel Testing**
- **Compatibility**

Light weight

Resource-Efficient

Quick on-demand

Nodes Adjustment

Wide range of browsers

Built-in support

Built-in capabilities

Simpler & user-friendly

Reuse existing Selenium test scripts

Active and Growing Community

Inherently supports

WebDriver-based automation



## Selenium Grid

Virtual/physical Machine

Resource-intensive

Slower

Complex Configuration

Requires more efforts

Require third-party tools

Additional scripting

Additional and complex steps

Tightly integrated and Native support

Well-established Community

Efficient Support

Broader framework and language compatibility





