

# DataPower WebUI Automation Tool

## Overview

This Python script automates interactions with IBM DataPower Gateway's web interface. It uses Selenium WebDriver to log into the DataPower WebUI, navigate to Web Service Proxy configurations, and capture screenshots for documentation or monitoring purposes.

## Features

- **Automated Login:** Handles authentication to the DataPower WebUI
- **SSL Bypass:** Automatically manages self-signed certificate warnings
- **Navigation:** Searches for and accesses Web Service Proxy configurations
- **Screenshot Capture:** Saves a screenshot of the Web Service Proxy interface

## Requirements

- Python 3.6+
- Chrome browser
- DataPower Gateway instance running in Docker

## Installation

```
# Clone the repository
git clone https://github.com/yourusername/datapower-automation.git
cd datapower-automation
```

```
# Install required packages
pip install selenium webdriver-manager
```

## Docker Setup Instructions

### Starting the DataPower Container

Use the following commands to spin up the DataPower Docker container:

```
sudo docker run -it \  
  --name datapower \  
  -p 9090:9090 \  
  -p 9022:22 \  
  -p 9080:80 \  
  -p 5554:5554 \  
  -e DATAPOWER_ACCEPT_LICENSE=true \  
  -e DATAPOWER_INTERACTIVE=true \  
  icr.io/cpopen/datapower/datapower-limited:10.0.1.5
```

**Note:** If this password isn't working, reset it using `sudo passwd`.

## Initial DataPower Configuration

After starting the Docker container, you need to enable web management:

1. Log in with datapower Command console using these credentials:
  - Username: `admin`
  - Password: `admin`

Run the following commands:

2. `configure; web-mgmt; admin enabled; save-config`
3. Exit the terminal

## Configure Web Management Access

To ensure access to the WebUI:

1. Add the following IPs to allowed addresses:
  - `127.0.0.1/32`
  - `172.17.0.1/16`
  - Your local machine's IP (e.g., `172.29.196.219/20`)
2. Apply and save changes
3. Test WebGUI access with: `curl -k https://localhost:9090`

## Helpful Docker Commands

To check your local IP address:

```
ip addr show eth0 | grep "inet\b" | awk '{print $2}' | cut -d/ -f1
```

To check container status:

```
docker container inspect --format '{{.State.Status}}' container-name-or-id
```

Example:

```
docker container inspect --format '{{.State.Status}}' 07c90bfbadcc
```

## Usage

1. Ensure your DataPower Docker instance is running and accessible at <https://localhost:9090>
2. Run the script:

```
python datapower_automation.py
```

The script will:

1. Open Chrome and navigate to the DataPower WebUI
2. Handle security certificate warnings
3. Log in using default credentials (admin/admin)
4. Search for "Web Service Proxy"
5. Navigate to the third Web Service Proxy result
6. Capture a screenshot saved as [Datapower\\_WebserviceProxy\\_Screenshot.png](#)

## Configuration

The script uses default DataPower credentials:

- Username: [admin](#)
- Password: [admin](#)

To modify these or other settings, edit the appropriate variables in the script.

## Troubleshooting

- **Connection Issues:** Verify your DataPower container is running with WebUI port 9090 exposed
- **Authentication Failures:** Confirm the credentials match your DataPower configuration
- **Element Not Found Errors:** The script may need adjustments if your DataPower version has UI differences

## License

MIT License

## Contributors

- Satish Vattikulla