WebGoat

WebGoat is a deliberately insecure web application maintained by OWASP designed to teach web application security lessons.

Using WebGoat in lab machines

WebGoat is already installed and running in the lab machines, and you can access it from: 127.0.0.1:8080/WebGoat inside your Kali Linux.

- By default, the WebGoat is running inside your Kali machine. In case it is stopped, you can turn it on with typing *webgoatstart* command in a terminal.
- You can use **username** & **password** as your user and pass to login to WebGoat, or you can register a new user.

Installing WebGoat on Google Cloud

You can install WebGoat on your cloud instances.

1) Create a new Ubuntu 18.04 VM, allow HTTP and HTTPs traffic to your machine. Setup your firewall so that the Web applications inside this VM are accessible from outside.

2) SSH to your VM and run the following commands:

3) Install docker container
   sudo apt-get update
   sudo apt install docker.io
   sudo systemctl start docker
   sudo systemctl enable docker
   docker --version

4) Download WebGoat 8.0
   sudo docker pull webgoat/webgoat-8.0

5) Create a folder to store the work you will complete in WebGoat (this will store your work, even if you restart the cloud VM or the container)

   sudo mkdir ~/webgoat-data

   sudo chown 1000:1000 webgoat-data -R

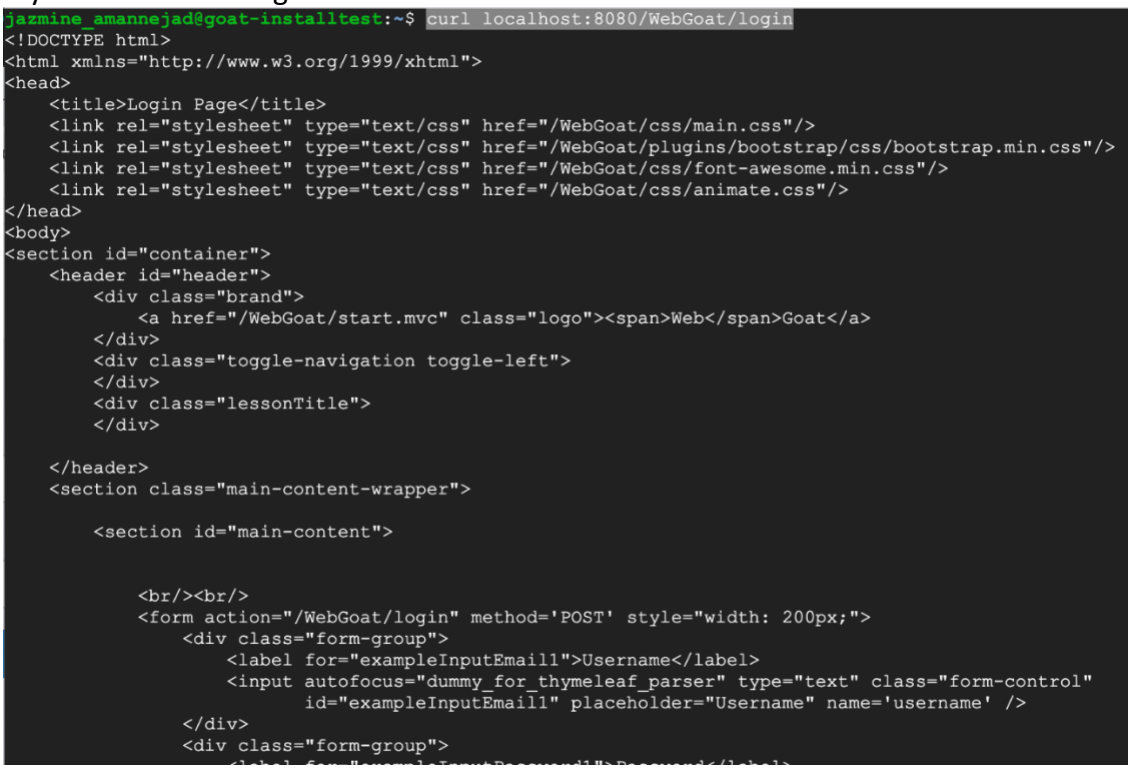
6) Now start your docker using the given folder you created, and exposing port 8080 for outside access

   sudo docker run -p 8080:8080 --name webgoat --rm -it -v ~/webgoat-data:/home/webgoat/.webgoat-8.0-8088465 webgoat/webgoat-8.0:latest

7) Now, you should be able to access your Web application online at **http://IP ADDRESS:8080/WebGoat/login**

   - Make sure to use HTTP.

   If, you cannot access it, it might be because of your firewall settings or your setup was incorrect. Open **another** SSH window and type "curl localhost:8080/WebGoat/login". If this works as the below image, but you cannot access the page in browser, you need to fix your firewall settings.



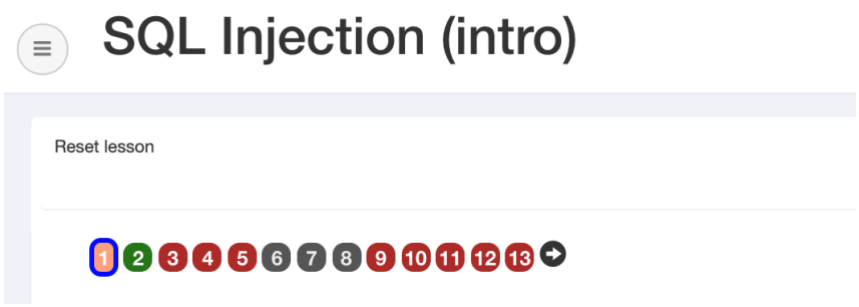
Note 1: Considering that WebGoat is a vulnerable Web application, you'd better run your VM only when you need it and stop it when you are done.

(Optional) If you want to keep your WebGoat running inside your VM, you can install and run your commands in a tmux session.

```
sudo apt-get install tmux
tmux
```

Note 2: To start working with WebGoat, you need to first register a user for yourself.

Note 3: Complete one task, and then stop your VM and re-start it, and make sure that the user you created and also the steps you completed (Green) are saved properly.



Note 4: If you turn off your machine, in your next uses, you only need to repeat step the following commands:

```
sudo docker run -p 8080:8080 --name webgoat --rm -it -v ~/webgoat-data:/home/webgoat/.webgoat-8.0-8088465 webgoat/webgoat-8.0:latest
```