ChatGPT

Documentation: Jenkins Installation with Custom 404 Page on AWS EC2 (Amazon Linux 2023)

General Information

- **Server Type**: AWS EC2 Instance
- **OS**: Amazon Linux 2023
- **Purpose**:
- Install and run Jenkins on port 80
- Show custom 404 page when Jenkins is stopped or unavailable

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Steps and Commands

1. Update the System

```
sudo yum update -y
```

2. Install Java (OpenJDK 17)

Amazon Linux 2023 does not support `amazon-linux-extras`, so use DNF:

```
sudo dnf install java-17-amazon-corretto -y
```

3. Add Jenkins Repository

```
sudo wget -O /etc/yum.repos.d/jenkins.repo \
    https://pkg.jenkins.io/redhat-stable/jenkins.repo
```

```
sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
```

4. Install Jenkins

```
sudo dnf install jenkins -y
```

5. Start and Enable Jenkins

```
sudo systemctl enable jenkins
sudo systemctl start jenkins
```

6. Install NGINX

```
sudo dnf install nginx -y
```

7. Configure NGINX as a Reverse Proxy

Edit the default config file:

```
sudo nano /etc/nginx/nginx.conf
```

Update the `server` block as follows:

```
server {
    listen       80 default_server;
    server_name  _;
    root         /usr/share/nginx/html;

    location / {
        proxy_pass http://localhost:8080;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
    }

    error_page 404 /custom_404.html;
    location = /custom_404.html {
        root /usr/share/nginx/html;
        internal;
    }

    error_page 502 503 504 /custom_404.html;
}
```

8. Create Custom 404 Page

```
sudo nano /usr/share/nginx/html/custom_404.html
```

Add the following content:

```
<!DOCTYPE html>
<html>
<head><title>404 Not Found</title></head>
<body style="text-align:center; margin-top:50px;">
  <h1 style="color:red;">Oops! Page Not Found (404)</h1>
  <p>The page you're looking for doesn't exist.</p>
```

```
</body>
</html>
```

9. Set Correct Permissions

```
sudo chown -R nginx:nginx /usr/share/nginx/html
sudo chmod -R 755 /usr/share/nginx/html
```

10. Restart NGINX

```
sudo systemctl restart nginx
```

Testing the Setup

- Access Jenkins: `http://<Public-IP>` (shows Jenkins if running)
- Stop Jenkins:

```
sudo systemctl stop jenkins
```

- Now access `http://<Public-IP>` → should show the custom 404 page

Useful Commands

- Check Jenkins status:

```
sudo systemctl status jenkins
```

- Start/Stop Jenkins:

```
sudo systemctl start|stop jenkins
```

- Check NGINX logs:

```
sudo tail -f /var/log/nginx/error.log
```

Conclusion

This setup ensures that Jenkins runs on port 80 via NGINX, and when it is not available, a user-friendly custom 404 error page is shown.