TP 7 - Servidor de Build

Instalar Jenkins


```
1   FROM jenkins/jenkins:lts
2
3   USER root
4
5   # Instala dependencias necesarias
6   RUN apt-get update && apt-get install -y \
7       apt-transport-https \
8       software-properties-common \
9       wget
10
11  # Agrega el repositorio de Microsoft y actualiza
12  RUN wget -q https://packages.microsoft.com/config/ubuntu/20.04/packages-microsoft-prod.deb -(
13      dpkg -i packages-microsoft-prod.deb && \
14      apt-get update
15
16  # Instala el SDK de .NET Core
17  RUN apt-get install -y dotnet-sdk-7.0
18
19  USER jenkins
```



```
PS C:\Users\sofia\OneDrive\Escritorio\IdS3\tp 7> docker build -t jenkins-with-dotnetcore -f Dockerfile.jenkins .
[+] Building 614.0s (9/9) FINISHED
 => [internal] load build definition from Dockerfile.jenkins                                          0.1s
 => => transferring dockerfile: 570B                                                                  0.0s
 => [internal] load .dockerignore                                                                     0.0s
 => => transferring context: 2B                                                                       0.0s
 => [internal] load metadata for docker.io/jenkins/jenkins:lts                                        4.5s
 => [auth] jenkins/jenkins:pull token for registry-1.docker.io                                       0.0s
 => [1/4] FROM docker.io/jenkins/jenkins:lts@sha256:b705323eaf70a7da4c1eed8b816f33dff2d5c8c3671170a2c17cf77aa4f  293.8s
 => => resolve docker.io/jenkins/jenkins:lts@sha256:b705323eaf70a7da4c1eed8b816f33dff2d5c8c3671170a2c17cf77aa4f15  0.0s
 => => sha256:b705323eaf70a7da4c1eed8b816f33dff2d5c8c3671170a2c17cf77aa4f15432 3.12kB / 3.12kB        0.0s
 => => sha256:2a15645303916751e9fd781fd403051199d94052d5d18be6e1b2398aab1f79c1 2.77kB / 2.77kB        0.0s
 => => sha256:3d0d48f61941fc7cb5253b07efd932d06ee6e335445f6f535ac3d1d49e385a7e 12.62kB / 12.62kB      0.0s
 => => sha256:5e0093fb8d5f36e86b93870a544e50bf21f3968e872f91ad0a2bc9abdc672472 8.68MB / 8.68MB        24.0s
 => => sha256:f6154b0007a4a7dcee550de8b63ddbdf177961a972a33c54b2c4390dc4a873bf 61.32MB / 61.32MB      156.6s
 => => sha256:012c0b3e998c1a0c0bedcf712eaaafb188580529dd026a04aa1ce13fdb39e42b 49.56MB / 49.56MB      130.5s
 => => sha256:34d3735955786e60f8bb8e7bd6fa2dfd7739dc047ba49c637c18a5d54b99d23c 1.23kB / 1.23kB        24.2s
 => => sha256:10cad8b7dbf876c2afb6402c97060b77d723bd6838daef8c2fadab362864f768 183B / 183B            24.5s
 => => sha256:2471c7529ac37af126ea6c1afad134f08afa5c684f7e10816e314d286ce7dc38 89.33MB / 89.33MB      245.2s
 => => sha256:655eafc427231f280d11bcd10dfa0887a3165d2eb9345ab44ed75063bed17ae7 189B / 189B            131.3s
 => => extracting sha256:012c0b3e998c1a0c0bedcf712eaaafb188580529dd026a04aa1ce13fdb39e42b             1.5s
 => => sha256:3145851d1a67db7eb3dd0d7f6734a26340476b9d1f6db58668088d72b4833847 6.09MB / 6.09MB        148.6s
 => => sha256:614d8a8c6a95f7a9ab30388cf16a55f34eb54e0bcc52d4c3ef5033ac46200cd8 77.15MB / 77.15MB      291.1s
 => => extracting sha256:f6154b0007a4a7dcee550de8b63ddbdf177961a972a33c54b2c4390dc4a873bf             1.6s
 => => sha256:95f5dcd4e08b1d468bac93b830b9aa4d9c0f302d5be66c478dc70fb48fb6bf62 1.93kB / 1.93kB        159.2s
 => => extracting sha256:5e0093fb8d5f36e86b93870a544e50bf21f3968e872f91ad0a2bc9abdc672472             0.1s
 => => extracting sha256:34d3735955786e60f8bb8e7bd6fa2dfd7739dc047ba49c637c18a5d54b99d23c             0.0s
 => => extracting sha256:10cad8b7dbf876c2afb6402c97060b77d723bd6838daef8c2fadab362864f768             0.0s
 => => sha256:7c8f869ed080beb2a95df25c497c699a86746c448fbb3a6f29bfd42313ec2a49 1.16kB / 1.16kB        159.6s
 => => sha256:3a7be85a26d2887982180264f604ffb596884aa270ed5a80eed3b30711cfd44c 392B / 392B            159.9s
```

Getting Started

✓ Folders	⟳ OWASP Markup Formatter	○ Build Timeout	○ Credentials Binding
⟳ Timestamper	⟳ Workspace Cleanup	○ Ant	⟳ Gradle
⟳ Pipeline	○ GitHub Branch Source	⟳ Pipeline: GitHub Groovy Libraries	⟳ Pipeline: Stage View
○ Git	○ SSH Build Agents	⟳ Matrix Authorization Strategy	○ PAM Authentication
○ LDAP	⟳ Email Extension	○ Mailer	

```
** Ionicons API
Folders
OWASP Markup Formatter



** - required dependency
```

Jenkins 2.414.2

Create First Admin User

Usuario

admin

Contraseña

•••••

Confirma la contraseña

•••••

Nombre completo

Sofia

Jenkins 2.414.2

Skip and continue as admin   Save and Continue

Download progress

Preaparación

- Checking internet connectivity
- Checking update center connectivity
- Success

Ionicons API	✓ Actualizado
Folders	✓ Actualizado
OWASP Markup Formatter	✓ Actualizado
Structs	✓ Actualizado
bouncycastle API	✓ Actualizado
Instance Identity	✓ Actualizado
JavaBeans Activation Framework (JAF) API	✓ Actualizado
JavaMail API	✓ Actualizado
Pipeline: Step API	✓ Actualizado
Token Macro	✓ Actualizado
Build Timeout	✓ Actualizado
Credentials	✓ Actualizado
Plain Credentials	✓ Actualizado

Creando el primer job de estilo libre

✓ **Salida de consola**

```
Started by user sofia
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/first-job
[first-job] $ /bin/sh -xe /tmp/jenkins17558783538348060884.sh
+ date +%Y-%m-%d %H:%M:%S
+ current_datetime=2023-10-06 18:45:07
+ echo La fecha y hora actual es: 2023-10-06 18:45:07
La fecha y hora actual es: 2023-10-06 18:45:07
Finished: SUCCESS
```

Creando el primer Pipeline Job

✓ Salida de consola

```
Started by user sofia
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/hello-world
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Hello)
[Pipeline] echo
Hello World
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Explicación del pipeline:

"Started by user sofia": Muestra quién inició la ejecución del pipeline.

"[Pipeline] Start of Pipeline": Indica el inicio del pipeline.

"[Pipeline] node": Muestra que se está ejecutando en un nodo.

"Running on Jenkins in /var/jenkins_home/workspace/hello-world": Indica que el pipeline se está ejecutando en un entorno de Jenkins en el directorio de trabajo especificado.

"[Pipeline] {": Indica el inicio de un bloque de código dentro del pipeline.

"[Pipeline] stage": Este es el comienzo de una etapa dentro del pipeline. Las etapas son unidades lógicas de trabajo en el pipeline.

"[Pipeline] { (Hello)": Esto muestra el nombre de la etapa actual, que se llama "Hello".

"[Pipeline] echo": Indica que se está utilizando el comando "echo" para imprimir algo en la consola.

"Hello World": Aquí se muestra el mensaje "Hello World" que se ha impreso en la consola como parte de la etapa "Hello".

"[Pipeline] }": Marca el final de la etapa "Hello".

"[Pipeline] // stage": Indica el final de la etapa actual.

"[Pipeline] }": Marca el final del bloque de código dentro del pipeline.

"[Pipeline] // node": Indica el final del nodo actual en el que se está ejecutando el pipeline.

"[Pipeline] End of Pipeline": Marca el final del pipeline.

"Finished: SUCCESS": Esto indica que la ejecución del pipeline se ha completado exitosamente.

Pipeline job "github-job"

✓ **Salida de consola**

```
Started by user sofia
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/github-job
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] git
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/ingsoft3ucc/SimpleWebAPI
 > git init /var/jenkins_home/workspace/github-job # timeout=10
Fetching upstream changes from https://github.com/ingsoft3ucc/SimpleWebAPI
 > git --version # timeout=10
 > git --version # 'git version 2.39.2'
 > git fetch --tags --force --progress -- https://github.com/ingsoft3ucc/SimpleWebAPI +refs/heads/*:refs/remotes/origin/* #
timeout=10
 > git config remote.origin.url https://github.com/ingsoft3ucc/SimpleWebAPI # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/main^{commit} # timeout=10
```

```
Checking out Revision 8726ce58a1894af134cd22fcfbc7eccb38ad9444 (refs/remotes/origin/main)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 8726ce58a1894af134cd22fcfbc7eccb38ad9444 # timeout=10
 > git branch -a -v --no-abbrev # timeout=10
 > git checkout -b main 8726ce58a1894af134cd22fcfbc7eccb38ad9444 # timeout=10
Commit message: "Update WeatherForecastController.cs"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Job de "git-netcore"

```
Started by user sofia
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/git-netcore-job
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/sofiacersofios/SimpleWebAPI
 > git init /var/jenkins_home/workspace/git-netcore-job # timeout=10
Fetching upstream changes from https://github.com/sofiacersofios/SimpleWebAPI
 > git --version # timeout=10
 > git --version # 'git version 2.39.2'
 > git fetch --tags --force --progress -- https://github.com/sofiacersofios/SimpleWebAPI +refs/heads/*:refs/remotes/origin/*
# timeout=10
 > git config remote.origin.url https://github.com/sofiacersofios/SimpleWebAPI # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision efcf73cd6c34bd7e6a281a642d8b8971e8a2cdce (refs/remotes/origin/main)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f efcf73cd6c34bd7e6a281a642d8b8971e8a2cdce # timeout=10
Commit message: "Update README.md"
First time build. Skipping changelog.
[git-netcore-job] $ dotnet build SimpleWebAPI.sln

Welcome to .NET 7.0!
---------------------
SDK Version: 7.0.401
```

```
Write your first app: https://aka.ms/dotnet-hello-world
Find out what's new: https://aka.ms/dotnet-whats-new
Explore documentation: https://aka.ms/dotnet-docs
Report issues and find source on GitHub: https://github.com/dotnet/core
Use 'dotnet --help' to see available commands or visit: https://aka.ms/dotnet-cli
--------------------------------------------------------------------------------
MSBuild version 17.7.3+8ec440e68 for .NET
  Determining projects to restore...
  Restored /var/jenkins_home/workspace/git-netcore-job/SimpleWebAPI/SimpleWebAPI.csproj (in 18.3 sec).
  SimpleWebAPI -> /var/jenkins_home/workspace/git-netcore-job/SimpleWebAPI/bin/Debug/net7.0/SimpleWebAPI.dll

Build succeeded.
    0 Warning(s)
    0 Error(s)

Time Elapsed 00:00:36.82
.NET Command Completed - Exit Code: 0

[git-netcore-job] $ dotnet publish SimpleWebAPI.sln --self-contained false
MSBuild version 17.7.3+8ec440e68 for .NET
  Determining projects to restore...
  All projects are up-to-date for restore.
  SimpleWebAPI -> /var/jenkins_home/workspace/git-netcore-job/SimpleWebAPI/bin/Debug/net7.0/SimpleWebAPI.dll
  SimpleWebAPI -> /var/jenkins_home/workspace/git-netcore-job/SimpleWebAPI/bin/Debug/net7.0/publish/
.NET Command Completed - Exit Code: 0

Finished: SUCCESS
```

Cambios en el README

✓ Compilar #2 (16 oct. 2023 14:31:52)

Conservar esta ejecución para siempre

Comenzó hace 2 Min 4 Seg
Tardó **24 Seg**

/ añadir descripción

</> Changes

   1. Update README.md (details / githubweb)

🕐 [Ejecutado porque se detectaron cambios en el repositorio](#)

◆ git **Revision**: cd002f257fc16cf030b63762587564bfbc9e5a9d
Repository: https://github.com/sofiacersofios/SimpleWebAPI

   • refs/remotes/origin/main

✓ Cambios

Summary

   1. Update README.md (details)

   Commit cd002f257fc16cf030b63762587564bfbc9e5a9d **by** noreply
   Update README.md

/ README.md (diff)

WebHook: El trabajo se dispara automáticamente en respuesta a un evento específico, como la confirmación de un cambio en el repositorio. Esto significa que el trabajo se ejecuta solo cuando hay cambios, lo que ahorra recursos y tiempo de ejecución.

Ejecución Periódica: El trabajo se programa para ejecutarse en intervalos regulares, por ejemplo, cada hora o cada día. No está vinculado a eventos específicos en el repositorio, se ejecuta según el cronograma establecido. Esto puede ser menos eficiente que usar un WebHook.

Job de Node.js

Configurar el origen del código fuente

○ Ninguno

● Git ?

Repositories ?

Repository URL ?   ✕

https://github.com/sofiacersofios/my-app

Credentials ?

- none -   ⌄

Add ▾

Avanzado ⌄

Build Steps

☰ **Ejecutar linea de comandos (shell)** ?   ✕

Comando
Visualizar **la lista de variables de entorno disponibles**

```
npm install
npm run build
```

Avanzado ⌄

Añadir un nuevo paso ▾

✓ Salida de consola

```
Started by user sofia
Running as SYSTEM
Building in workspace /var/jenkins_home/workspace/node-job
The recommended git tool is: NONE
using credential 1b34eb32-c0b2-4532-b9f4-9daf441280d3
 > git rev-parse --resolve-git-dir /var/jenkins_home/workspace/node-job/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/sofiacersofios/my-app # timeout=10
Fetching upstream changes from https://github.com/sofiacersofios/my-app
 > git --version # timeout=10
 > git --version # 'git version 2.39.2'
using GIT_ASKPASS to set credentials
 > git fetch --tags --force --progress -- https://github.com/sofiacersofios/my-app +refs/heads/*:refs/remotes/origin/* #
timeout=10
 > git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 4d306d258523168e2246b152c82e1d2fe9dce32e (refs/remotes/origin/main)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 4d306d258523168e2246b152c82e1d2fe9dce32e # timeout=10
Commit message: "cambios"
First time build. Skipping changelog.
Finished: SUCCESS
```