

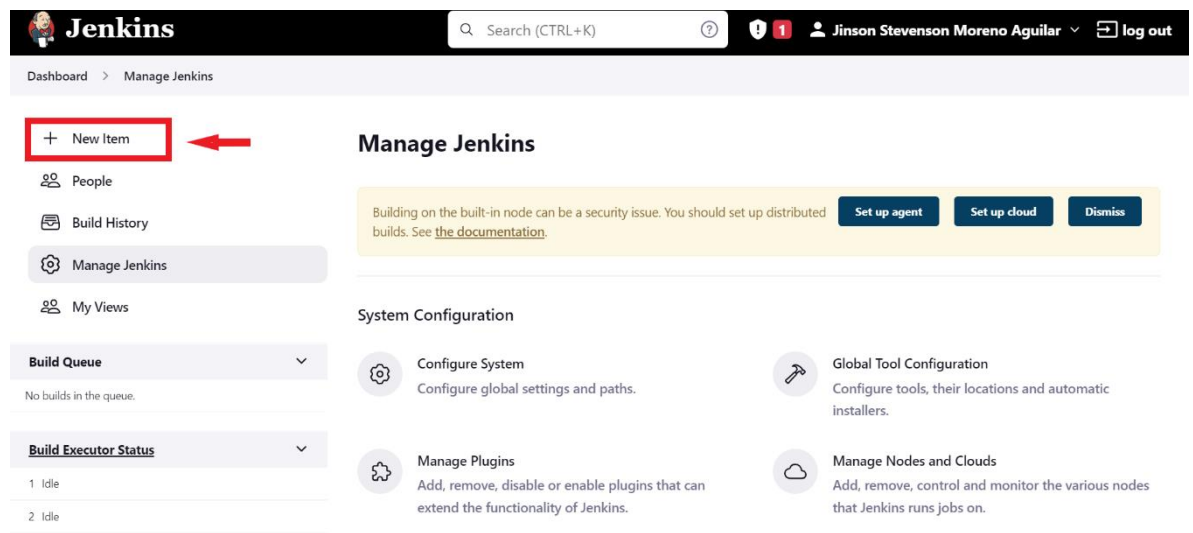
Modulo TAE CI/CD Actividad Uno

Estudiante: Jinson Stevenson Moreno Aguilar

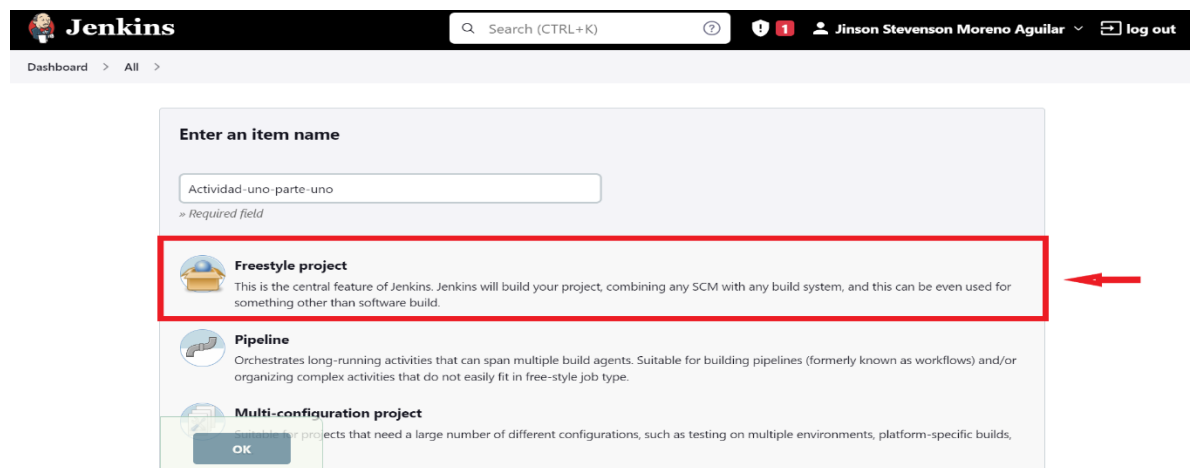
1) Parte 1:

1. Crear un job que haga lo siguiente:
 - 1.1. Descargue el proyecto de la rama máster.
 - 1.2. Compile el proyecto.
 - 1.3. Genere el archivo .jar del proyecto.

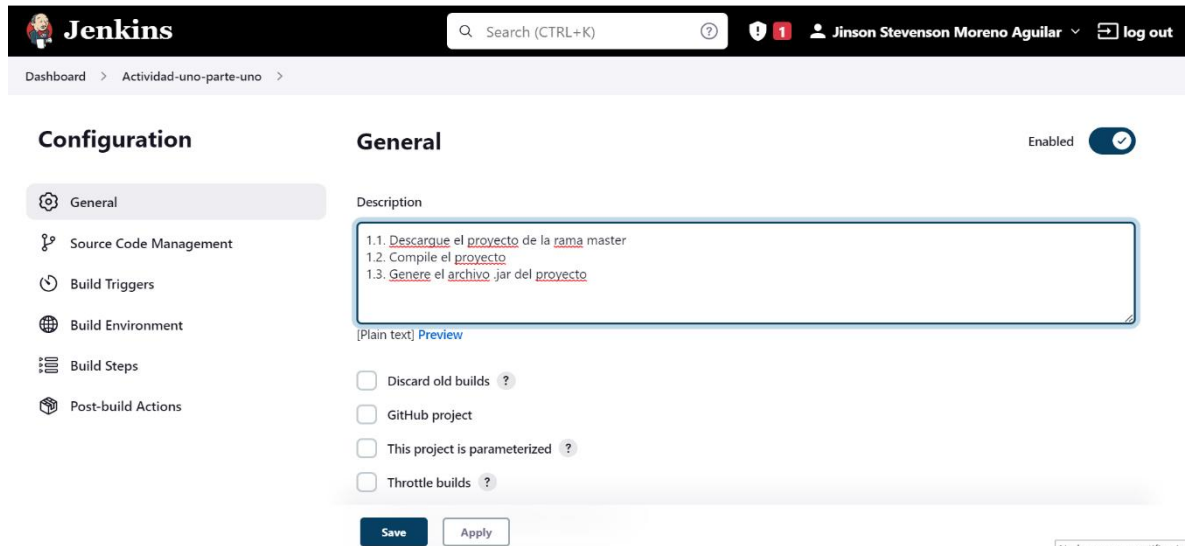
Desarrollo:



Para crear un nuevo Job nos dirigimos al dashboard de Jenkins y elegimos la opción “New Ítem”.

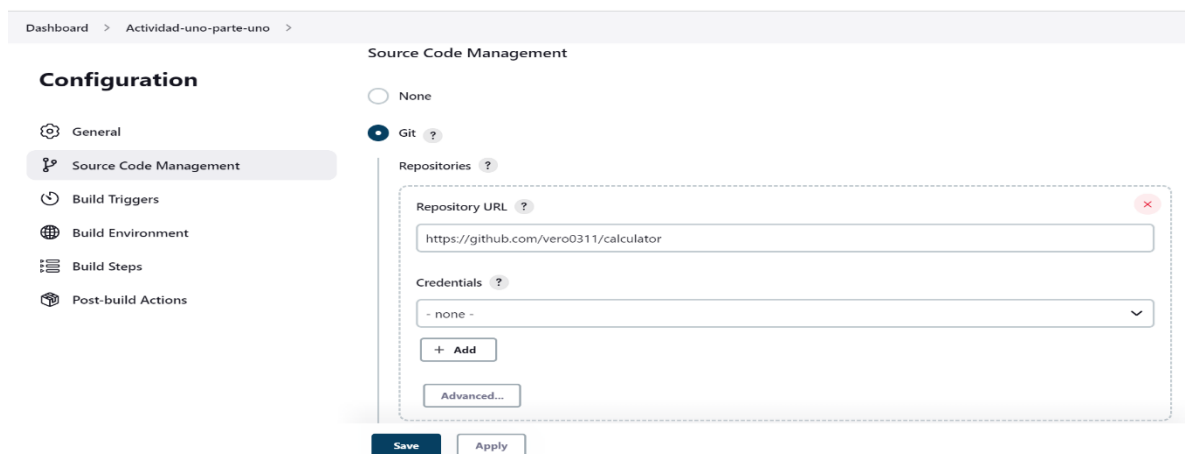


Le damos un nombre a ese Job y para este ejercicio en particular elegimos la opción “Freestyle Project” y posteriormente “OK”.



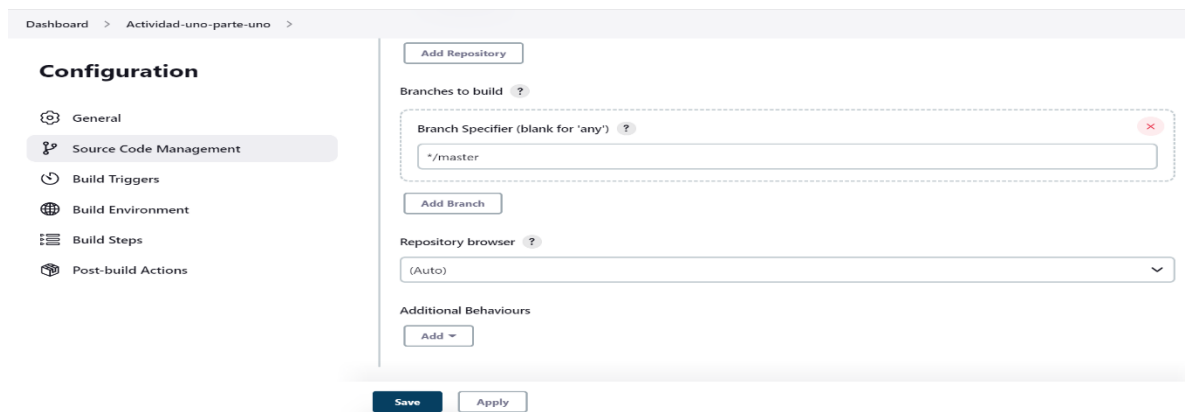
The image shows the Jenkins Configuration page for a job named 'Actividad-uno-parte-uno'. The 'General' tab is selected in the left sidebar. The 'Description' field contains the following text: 1.1. [Descargue](#) el [proyecto](#) de la [rama](#) master
1.2. [Compile](#) el [proyecto](#)
1.3. [Genere](#) el [archivo .jar](#) del [proyecto](#). Below the description field are four checkboxes: 'Discard old builds', 'GitHub project', 'This project is parameterized', and 'Throttle builds', all of which are currently unchecked. At the bottom of the configuration area are 'Save' and 'Apply' buttons.

Agregamos una descripción general de lo que el Job realizara.



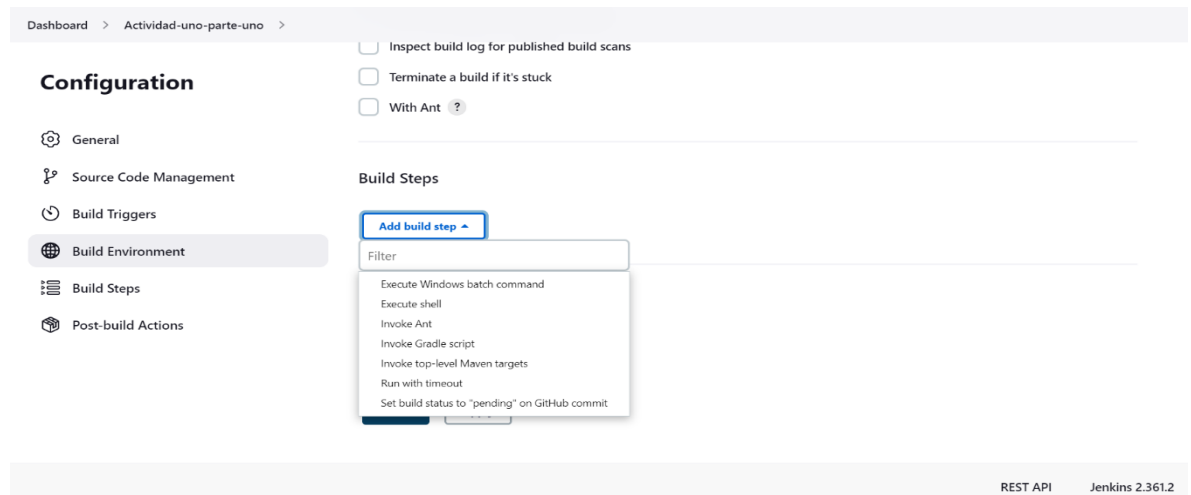
The image shows the Jenkins Configuration page for the same job, but with the 'Source Code Management' tab selected. The 'Git' radio button is selected under the 'Source Code Management' section. A 'Repository' is added with the URL 'https://github.com/vero0311/calculator'. The 'Credentials' dropdown is set to '- none -'. There are '+ Add' and 'Advanced...' buttons below the repository field. At the bottom are 'Save' and 'Apply' buttons.

Seleccionamos Git como gestor de código y agregamos el URL del repositorio con el que estamos trabajando.

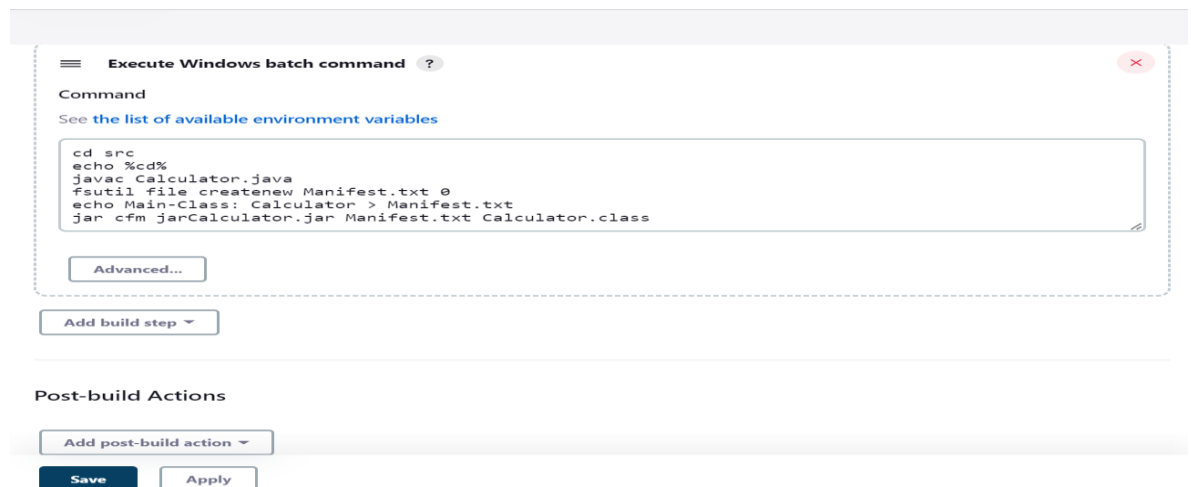


The image shows the Jenkins Configuration page for the same job, with the 'Source Code Management' tab selected. The 'Branches to build' section is expanded, showing a 'Branch Specifier (blank for 'any')' field with the value '*/master'. There are 'Add Branch' and 'Repository browser' (set to '(Auto)') fields. At the bottom are 'Save' and 'Apply' buttons.

Indicamos la rama del repositorio con la cual estaremos trabajando, para este caso la rama *master* que es la única presente en el repositorio



Seleccionamos los tipos de comandos con los que estaremos trabajando, como el ejercicio fue realizado en un ordenador Windows se selecciono “Execute Windows batch command”.



Agregamos los comandos necesarios para realizar el Job:

- Cd src: Indicamos que nos ubicaremos en la carpeta src presente en el repositorio.
- Echo %cd%: Nos da la ubicación de las rutas.
- Javac Calculator.java: Indicamos que queremos que el archivo Calculator.java sea de tip . class.
- Fsutil file create new Manifest.txt 0: Nos permite crear el archivo Manifest.
- Echo Main-Class: Calculator > Manifest.txt: Indicamos el String Main-Class: Calculator será agregado al archivo Manifest en la primera línea del archivo.
- Jar cfm jarCalculator.jar Manifest.tct Calculator.class: Permite crear el archivo .jar, cfm(c:crear nuevo archivo jar, f:especificamos el jar como argumento,tambien nos permite especificar el nombre del jar, m:nos permite pasarle el archivo manifest)

The screenshot shows the Jenkins dashboard for a project named "Actividad-uno-parte-uno". The top navigation bar includes the Jenkins logo, a search bar, and the user name "Jinson Stevenson Moreno Aguilar" with a "log out" button. The left sidebar contains a list of actions: "Back to Dashboard", "Status", "Changes", "Workspace", "Build Now", "Configure", "Delete Project", and "Rename". The main content area displays the project name "Project Actividad-uno-parte-uno" and a list of steps: "1.1. Descargue el proyecto de la rama master", "1.2. Compile el proyecto", and "1.3. Genere el archivo .jar del proyecto". There are buttons for "Edit description" and "Disable Project". Below the project name, there is a "Permalinks" section. At the bottom, there is a "Build History" section with a "trend" dropdown and a search bar for filtering builds.

Salvamos los cambios realizados en los pasos anteriores y somos redirigidos a esta ventana.

This screenshot is similar to the previous one, but the "Build Now" button in the left sidebar is highlighted with a red rectangle. Additionally, the "Build History" section at the bottom shows a list of builds, with the first build, "#1", highlighted by a red rectangle and a red arrow pointing to it. The build details for "#1" show it was executed on "Nov 1, 2022, 4:01 PM" and includes links for "Atom feed for all" and "Atom feed for failures".

Para ejecutar el Job oprimimos la opción “Build Now” y en la zona inferior podremos ver si el Job se ejecuto de manera exitosa o si fracaso.

The screenshot shows the Jenkins build result page for "Build #1" (Nov 1, 2022, 4:01:13 PM). The top navigation bar is the same. The left sidebar now includes "Back to Project", "Status", "Changes", "Console Output" (highlighted with a red rectangle), "Edit Build Information", "Delete build '#1'", and "Git Build Data". The main content area shows a green checkmark indicating a successful build. It includes a "Keep this build forever" button, an "Add description" button, and build details: "No changes.", "Started by user Jinson Stevenson Moreno Aguilar", "Revision: b2ec49664e0aa02b087274ba23f09bd99629c530", and "Repository: https://github.com/vero0311/calculator". The bottom of the page shows the "REST API" and "Jenkins 2.361.2" version.

Oprimimos en el resultado del Job y seleccionamos la opción “Console Output” para ver en detalle el proceso.

[Back to Project](#)[Status](#)[Changes](#)[Console Output](#)[View as plain text](#)[Edit Build Information](#)[Delete build #28](#)[Git Build Data](#)[Previous Build](#)

Console Output

```
Started by user Jinson Stevenson Moreno Aguilar
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/vero8311/calculator
> git.exe init C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno # timeout=10
Fetching upstream changes from https://github.com/vero8311/calculator
> git.exe --version # timeout=10
> git --version # 'git version 2.38.0.windows.1'
> git.exe fetch --tags --force --progress -- https://github.com/vero8311/calculator +refs/heads/*:refs/remotes/origin/* # timeout=10
> git.exe config remote.origin.url https://github.com/vero8311/calculator # timeout=10
> git.exe config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision b2ec49664e0aa02b087274ba23f09bd99629c530 (refs/remotes/origin/master)
> git.exe config core.sparsecheckout # timeout=10
> git.exe checkout -f b2ec49664e0aa02b087274ba23f09bd99629c530 # timeout=10
Commit message: "Calculator project"
> git.exe rev-list --no-walk b2ec49664e0aa02b087274ba23f09bd99629c530 # timeout=10
[Actividad-uno-parte-uno] $ cd /c call C:\windows\TEMP\jenkins670102121077074742.bat

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> cd src

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> echo C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src
C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> javac Calculator.java

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> fsutil file createnew Manifest.txt 0
File C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src\Manifest.txt is created

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> echo Main-Class: Calculator 1>Manifest.txt

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> jar cfm jarCalculator.jar Manifest.txt Calculator.class

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> exit 0
Finished: SUCCESS
```

Console Output

```
Started by user Jinson Stevenson Moreno Aguilar
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/vero8311/calculator
> git.exe init C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno # timeout=10
Fetching upstream changes from https://github.com/vero8311/calculator
> git.exe --version # timeout=10
> git --version # 'git version 2.38.0.windows.1'
> git.exe fetch --tags --force --progress -- https://github.com/vero8311/calculator +refs/heads/*:refs/remotes/origin/* # timeout=10
> git.exe config remote.origin.url https://github.com/vero8311/calculator # timeout=10
> git.exe config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git.exe rev-parse "refs/remotes/origin/master^{commit}" # timeout=10
Checking out Revision b2ec49664e0aa02b087274ba23f09bd99629c530 (refs/remotes/origin/master)
> git.exe config core.sparsecheckout # timeout=10
> git.exe checkout -f b2ec49664e0aa02b087274ba23f09bd99629c530 # timeout=10
Commit message: "Calculator project"
> git.exe rev-list --no-walk b2ec49664e0aa02b087274ba23f09bd99629c530 # timeout=10
[Actividad-uno-parte-uno] $ cmd /c call C:\windows\TEMP\jenkins670102121077074742.bat

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> cd src

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>echo C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src
C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>javac Calculator.java

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>fsutil file createnew Manifest.txt 0
File C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src\Manifest.txt is created

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>echo Main-Class: Calculator 1>Manifest.txt

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>jar cfm jarCalculator.jar Manifest.txt Calculator.class

C:\ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno> src>exit 0
Finished: SUCCESS
```

src

ArchivoInicioCompartirVista

C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src

Buscar en src

Nombre	Fecha de modificación	Tipo	Tamaño
Calculator.class	1/11/2022 6:20 p. m.	Archivo CLASS	
Calculator.java	1/11/2022 6:20 p. m.	Archivo de origen Java	
jarCalculator.jar	1/11/2022 6:20 p. m.	Executable Jar File	
Manifest.txt	1/11/2022 6:20 p. m.	Documento de texto	

4 elementos

Acceso rápido

Escritorio

Descargas

Documentos

Imágenes

Capturas de pantalla

Jenkins

Modulo Java

Parte 1

OneDrive

Este equipo

Red

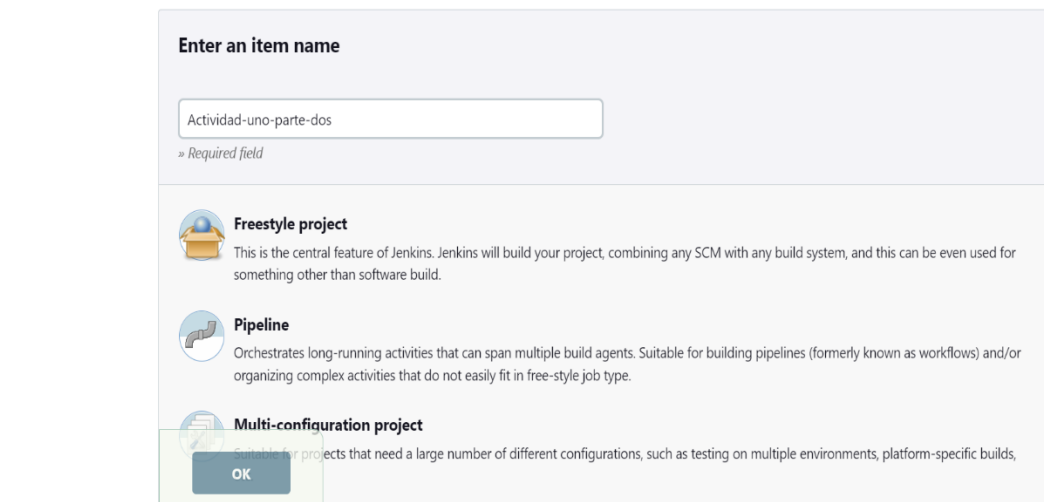
2) Parte 2:

2. Crear un segundo job que haga lo siguiente:

2.1 Tomar la build creada en el anterior job (En este deben de estar ubicados en la carpeta donde se generó la build).

2.2 ejecutar el comando `java-jar NOMBRE_DEL_ARCHIVO.jar` usando la build generada.

Desarrollo:



Configuration

General

Enabled ☒

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

Description

2.1 Tomar la build creada en el anterior job |
2.2 ejecutar el comando `java-jar NOMBRE_DEL_ARCHIVO.jar` usando la build generada.

[Plain text] [Preview](#)

- ☐ Discard old builds ?
- ☐ GitHub project
- ☐ This project is parameterized ?
- ☐ Throttle builds ?

Save

Apply

Dashboard > Actividad-uno-parte-dos >

Configuration

- General
- Source Code Management**
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

Source Code Management

☒ None

☐ Git ?

Build Triggers

☐ Trigger builds remotely (e.g., from scripts) ?

☐ Build after other projects are built ?

☐ Build periodically ?

☐ GitHub hook trigger for GITScm polling ?

☐ Poll SCM ?

Save **Apply**

Teniendo en cuenta que partiremos a partir de la build generada en la parte uno y no de un repositorio, aquí seleccionamos la opción “None”

Dashboard > Actividad-uno-parte-dos >

Configuration

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps**
- Post-build Actions

Build Steps

Execute Windows batch command ?

Command

[See the list of available environment variables](#)

```
cd ProgramData\Jenkins\.jenkins\workspace\Actividad-uno-parte-uno\src
cd
java -jar jarCalculator.jar
```

Advanced...

Add build step ▾

Save **Apply**

- `cd programDataJenkins\.jenkins\workspace\Actividad-uno-parte-uno\src` : Indicamos que nuestro punto de partida será esta carpeta la cual es el resultado el Job del paso uno.
- `cd`: Nos da la ubicación de las rutas.
- `java -jar jarCalculator.jar`: Nos permite ejecutar el archivo .jar especificado.

Dashboard > Actividad-uno-parte-dos >

↑ Back to Dashboard

Status

</> Changes

Workspace

Build Now

Configure

Delete Project

Rename

Project Actividad-uno-parte-dos

2.1 Tomar la build creada en el anterior job
2.2 ejecutar el comando java-jar NOMBRE_DEL_ARCHIVO.jar usando la build generada.

[Edit description](#)

Disable Project

Permalinks

- Last build (#8), 6 min 30 sec ago
- Last stable build (#8), 6 min 30 sec ago
- Last successful build (#8), 6 min 30 sec ago
- Last failed build (#6), 13 min ago
- Last unsuccessful build (#6), 13 min ago
- Last completed build (#8), 6 min 30 sec ago

Build History

trend ▾

Filter builds...

#8	Nov 1, 2022, 6:22 PM
#7	Nov 1, 2022, 6:17 PM

↑ Back to Project

☰ Status

</> Changes

📄 Console Output

📄 View as plain text

📄 Edit Build Information

🗑 Delete build '#8'

← Previous Build



Console Output

```
Started by user Jinson Stevenson Moreno Aguilar
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-dos
[Actividad-uno-parte-dos] $ cmd /c call C:\windows\TEMP\jenkins13352213211554466080.bat

C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-dos>cd
C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src

C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src>cd
C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src

C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src>java -jar jarCalculator.jar
El resultado de la suma es: 11
El resultado de la resta es: 15
El resultado de la suma es: 30
El resultado de la resta es: 4

C:\ProgramData\Jenkins\jenkins\workspace\Actividad-uno-parte-uno\src>exit 0
Finished: SUCCESS
```



Jenkins

🔍 Search (CTRL+K)



1



Jinson Stevenson Moreno Aguilar



log out

Dashboard >

+ New Item

👤 People

📁 Build History

⚙ Manage Jenkins

👤 My Views

Build Queue



No builds in the queue.

Build Executor Status



1 Idle

2 Idle

[Add description](#)

All



S

W

Name ↓

Last Success

Last Failure

Last Duration



Actividad-uno-parte-dos

12 min

#8

19 min

#6

0.9 sec



Actividad-uno-parte-uno

14 min

#28

34 min

#23

7.1 sec



Icon:

S

M

L

[Icon legend](#)

[Atom feed for all](#)

[Atom feed for failures](#)

[Atom feed for just latest builds](#)