

Práctica 1: Introducción a n8n



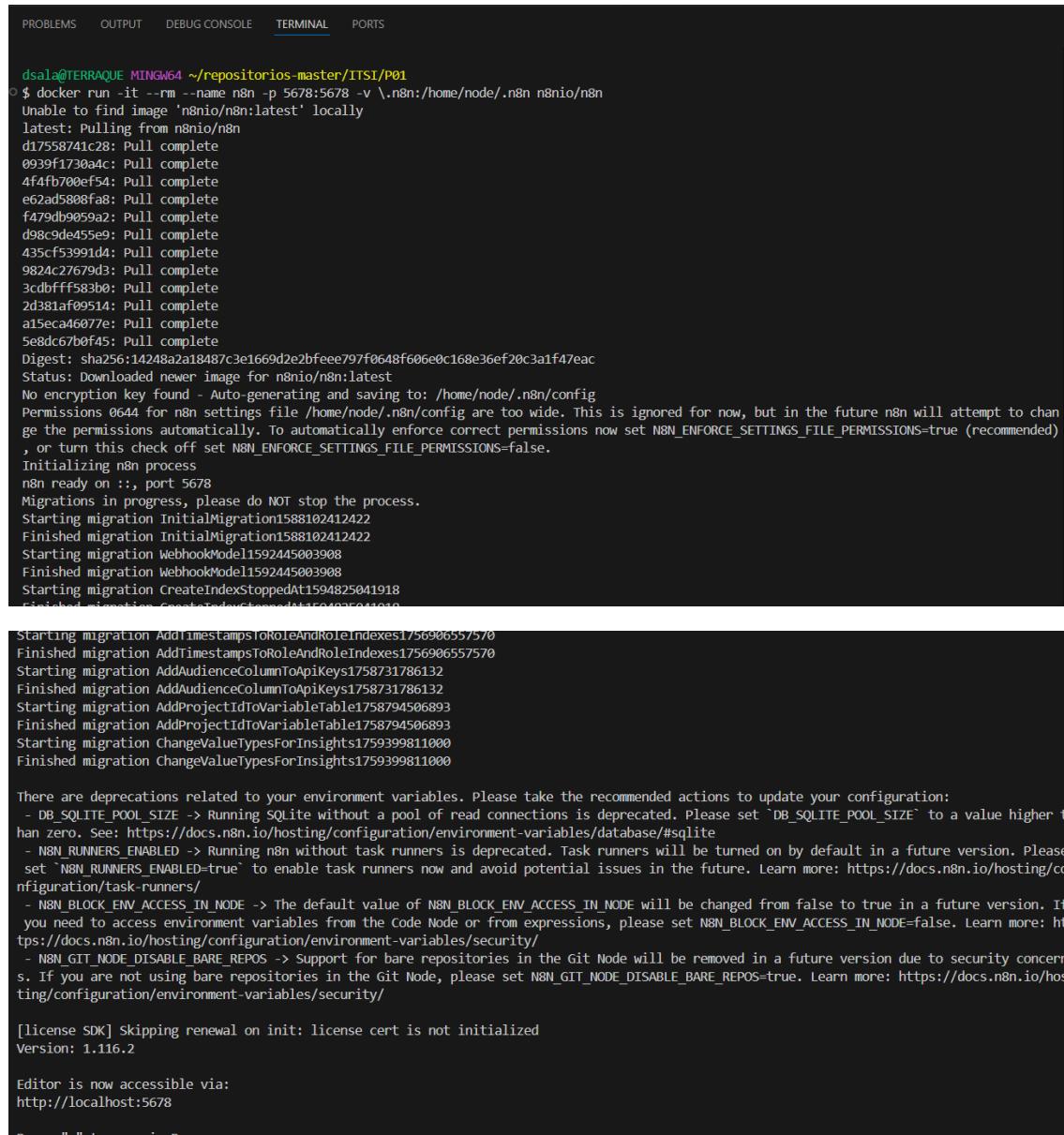
INTEGRACIÓN DE TECNOLOGÍAS Y SERVICIOS
INFORMÁTICOS

Daniel Salas Alonso

3. Preparación del Entorno de Trabajo: Despliegue de n8n con Docker

3.3. Ejecución del Contenedor de n8n

Ejecutamos “`docker run -it --rm --name n8n -p 5678:5678 -v \.n8n: /home/node/.n8n n8nio/n8n`” para iniciar nuestra instancia de n8n para esta práctica.



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

dsala@TERRAQUE MINGW64 ~/repositorios-master/ITSI/P01
$ docker run -it --rm --name n8n -p 5678:5678 -v \.n8n:/home/node/.n8n n8nio/n8n
Unable to find image 'n8nio/n8n:latest' locally
latest: Pulling from n8nio/n8n
d17558741c28: Pull complete
0939f1730a4c: Pull complete
4f4fb700ef54: Pull complete
e62ad5808f88: Pull complete
f479db0059a2: Pull complete
d98c9de455e9: Pull complete
435cf53991d4: Pull complete
9824c27679d3: Pull complete
3cdbfff583b0: Pull complete
2d381af09514: Pull complete
a15eca46077e: Pull complete
5e8dc67b0f45: Pull complete
Digest: sha256:1424Ba2a18487c3e1669d2e2bf0ee797f0648f606e0c168e36ef20c3a1f47eac
Status: Downloaded newer image for n8nio/n8n:latest
No encryption key found - Auto-generating and saving to: /home/node/.n8n/config
Permissions 0644 for n8n settings file /home/node/.n8n/config are too wide. This is ignored for now, but in the future n8n will attempt to change the permissions automatically. To automatically enforce correct permissions now set N8N_ENFORCE_SETTINGS_FILE_PERMISSIONS=true (recommended), or turn this check off set N8N_ENFORCE_SETTINGS_FILE_PERMISSIONS=false.
Initializing n8n process
n8n ready on ::, port 5678
Migrations in progress, please do NOT stop the process.
Starting migration InitialMigration1588102412422
Finished migration InitialMigration1588102412422
Starting migration WebhookModel1592445003908
Finished migration WebhookModel1592445003908
Starting migration CreateIndexStoppedAt1594825041918
Finished migration CreateIndexStoppedAt1594825041918

Starting migration AddTimestampsToRoleAndRoleIndexes1756906557570
Finished migration AddTimestampsToRoleAndRoleIndexes1756906557570
Starting migration AddAudienceColumnToApiKeys1758731786132
Finished migration AddAudienceColumnToApiKeys1758731786132
Starting migration AddProjectIdToVariableTable1758794506893
Finished migration AddProjectIdToVariableTable1758794506893
Starting migration ChangeValueTypeForInsights1759399811000
Finished migration ChangeValueTypeForInsights1759399811000

There are deprecations related to your environment variables. Please take the recommended actions to update your configuration:
- DB_SQLITE_POOL_SIZE -> Running SQLite without a pool of read connections is deprecated. Please set `DB_SQLITE_POOL_SIZE` to a value higher than zero. See: https://docs.n8n.io/hosting/configuration/environment-variables/database/#sqlite
- N8N_RUNNERS_ENABLED -> Running n8n without task runners is deprecated. Task runners will be turned on by default in a future version. Please set `N8N_RUNNERS_ENABLED=true` to enable task runners now and avoid potential issues in the future. Learn more: https://docs.n8n.io/hosting/configuration/task-runners/
- N8N_BLOCK_ENV_ACCESS_IN_NODE -> The default value of N8N_BLOCK_ENV_ACCESS_IN_NODE will be changed from false to true in a future version. If you need to access environment variables from the code Node or from expressions, please set N8N_BLOCK_ENV_ACCESS_IN_NODE=false. Learn more: https://docs.n8n.io/hosting/configuration/environment-variables/security/
- N8N_GIT_NODE_DISABLE_BARE_REPOS -> Support for bare repositories in the Git Node will be removed in a future version due to security concerns. If you are not using bare repositories in the Git Node, please set N8N_GIT_NODE_DISABLE_BARE_REPOS=true. Learn more: https://docs.n8n.io/hosting/configuration/environment-variables/security/

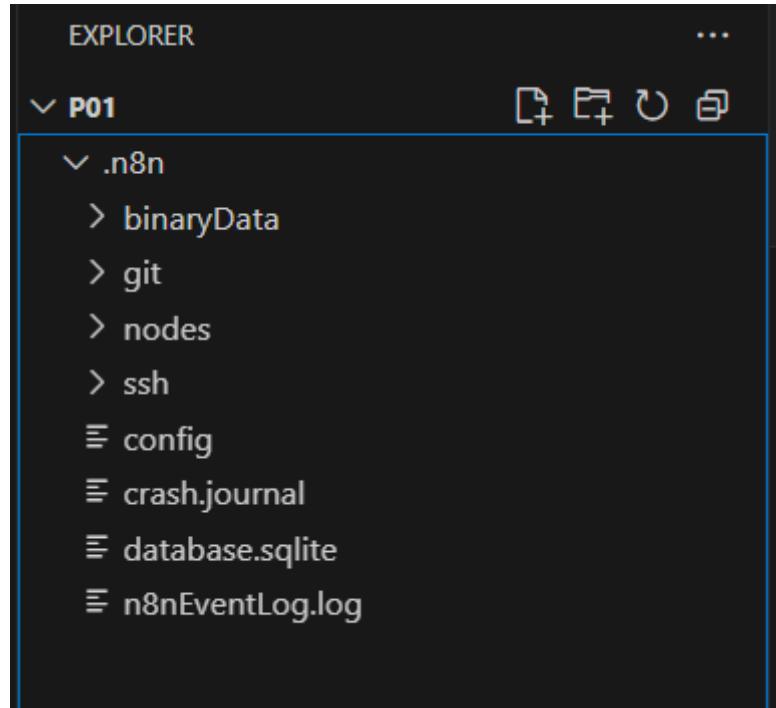
[license SDK] Skipping renewal on init: license cert is not initialized
Version: 1.116.2

Editor is now accessible via:
http://localhost:5678

Press "a" to open in Browser
```

3.4. Persistencia de Datos: La Importancia del Flag -v

Gracias al Bind Mount creado podemos ver la estructura del volumen creado en la carpeta “.n8n” en nuestro directorio de trabajo. Esta representa el volumen del contenedor ubicado en “/home/node/.n8n”.



3.5. Primer Acceso y Configuración

Abrimos el enlace de servidor n8n y nos creamos una cuenta de owner:

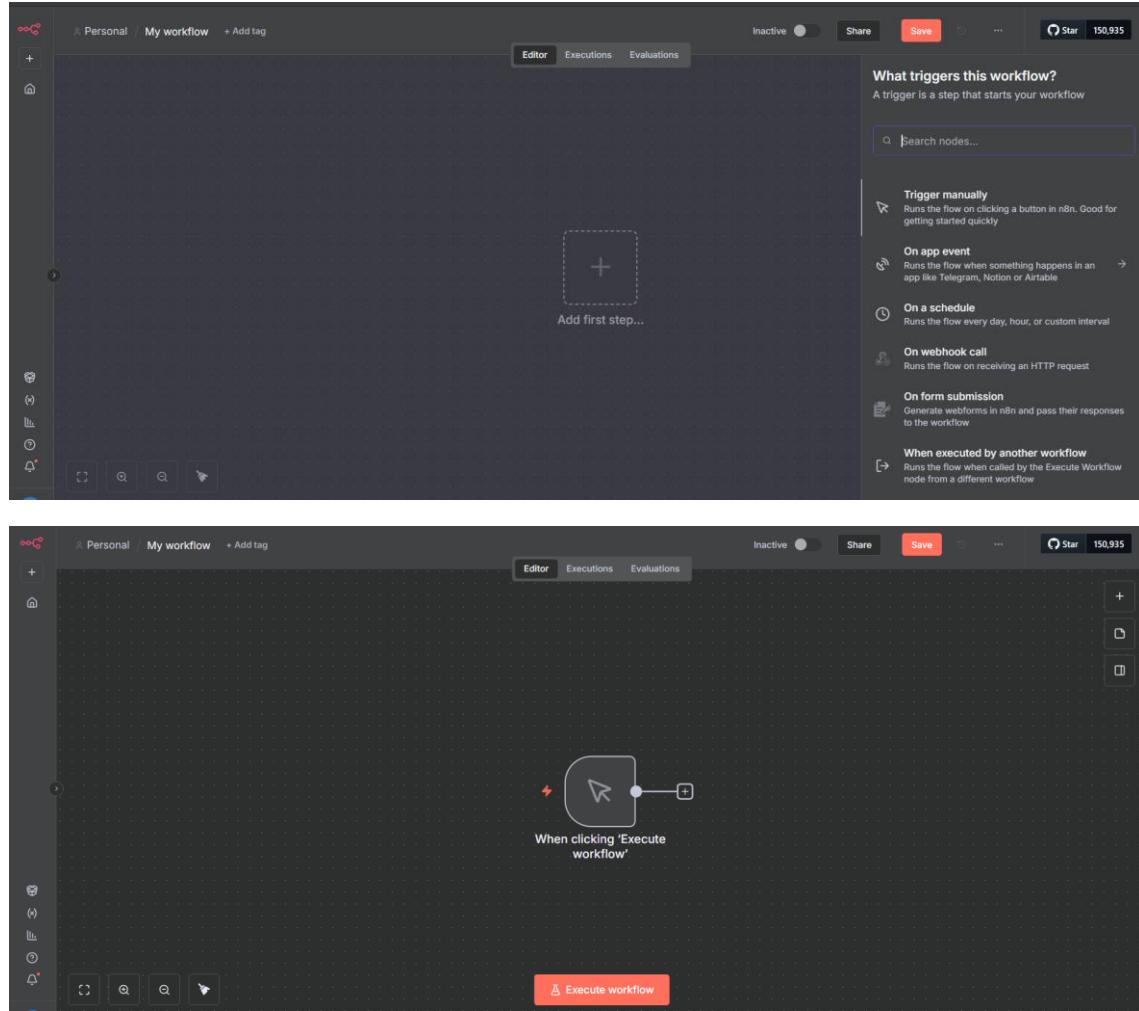
The image contains two screenshots of the n8n web application. The top screenshot shows the 'Personal Settings' page. It includes fields for 'First Name' (Daniel), 'Last Name' (Salas), and 'Email' (dsa069@inlumine.ul.es). The user is identified as 'Owner' with a blue profile picture. The bottom screenshot shows the 'Overview' page. It displays statistics: 'Prod. executions Last 7 days: 0', 'Failed prod. executions Last 7 days: 0', 'Failure rate Last 7 days: 0%', 'Time saved Last 7 days: ...', and 'Run time (avg.) 0s'. Below this, there are tabs for 'Workflows', 'Credentials', 'Executions', 'Data tables', and 'Beta'. A message 'Welcome Daniell!' and 'Create your first workflow' is displayed. At the bottom right, a notification says 'Your license key is on the way! Check your email dsa069@inlumine.ul.es, to find your license key. Then head over to usage and plan to activate your license.'

4. Desarrollo del Primer Flujo de Trabajo: De "Hola Mundo" al Consumo de una API

4.1. Ejercicio Guiado 1: Creación de un Flujo "Hola Mundo"

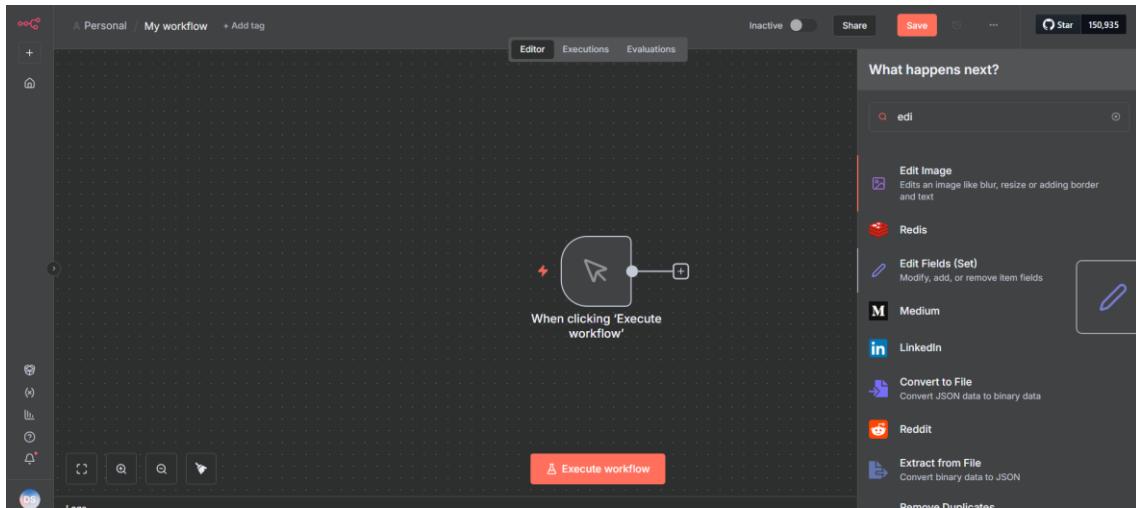
1. Paso 1: Añadir el Manual Trigger:

Creamos un nuevo workflow y agregamos un nodo de inicio de tipo Manual Trigger:

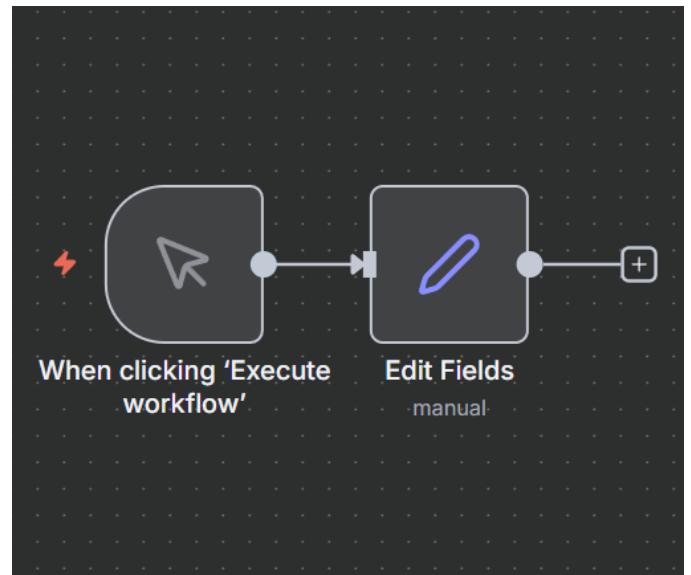


2. Paso 2: Configurar el Edit Fields (Set):

A continuación del nodo inicial conectamos un nodo Edit Fields para mostrar en el output el mensaje indicado:



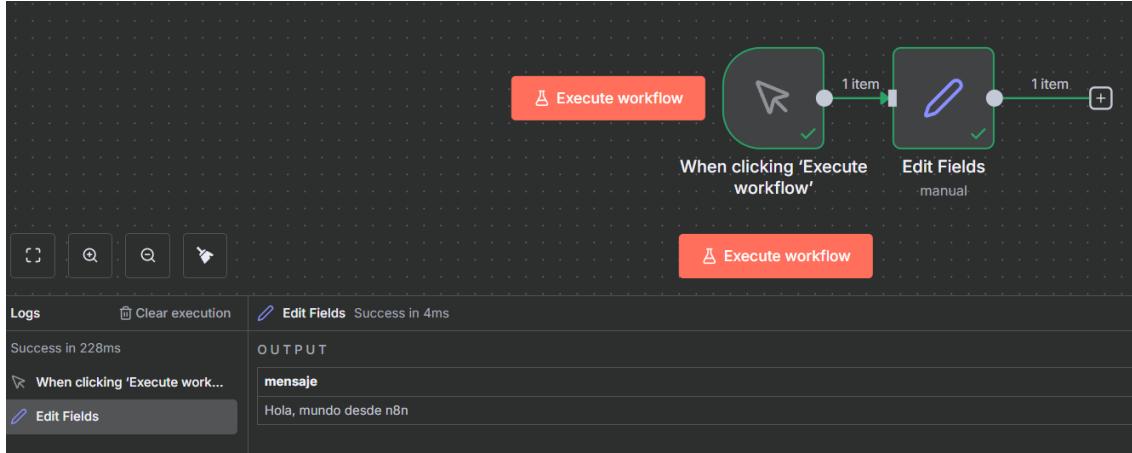
This screenshot shows the configuration dialog for the 'Edit Fields' node. At the top, there's a title 'Edit Fields' with a pencil icon, a red 'Execute step' button, and tabs for 'Parameters', 'Settings', and 'Docs'. The main area is titled 'Fields to Set' and contains a single entry: 'mensaje' of type 'String' with the value 'Hola, mundo desde n8n'. Below this is a dashed box with the placeholder 'Drag input fields here or Add Field'. Underneath is a section 'Include Other Input Fields' with a toggle switch. At the bottom, there's an 'Options' section with the message 'No properties' and a 'Add option' button.



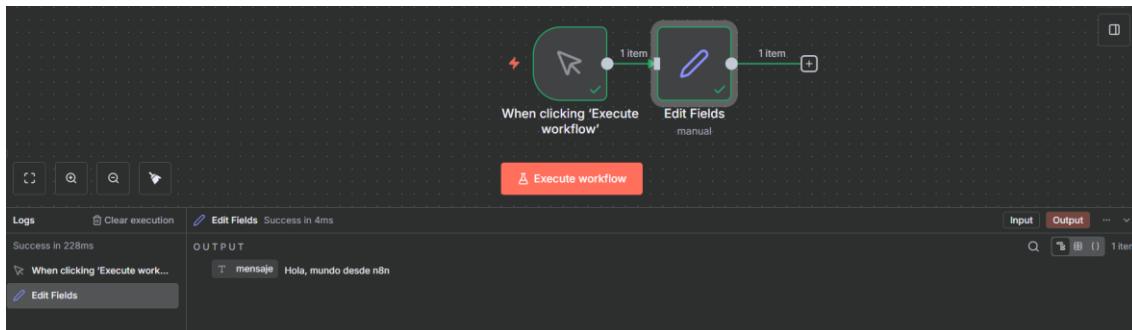
3. Paso 3: Ejecución y Análisis:

Observamos los diferentes formatos de la salida del nodo Edit Fields al ser ejecutado:

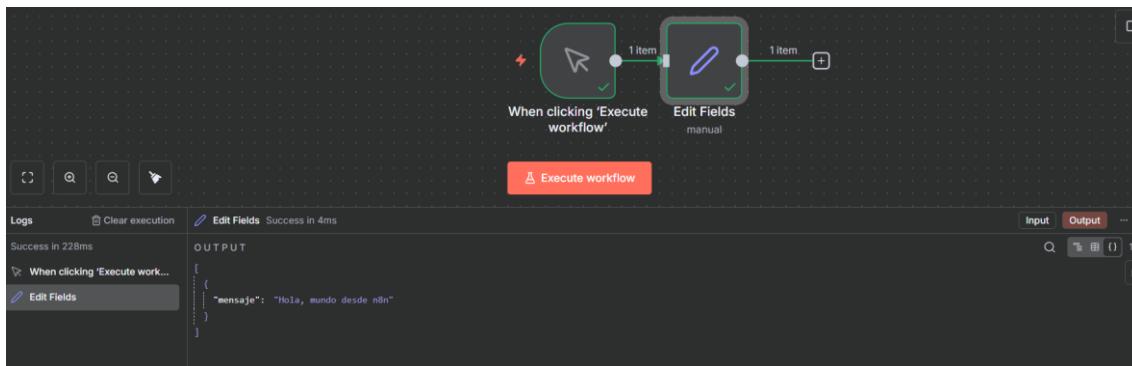
En la vista Table vemos por un lado el nombre de los parámetros y por otro su valor asociado.



En esta vista lo vemos con un formato diferente al anterior en forma de lista:



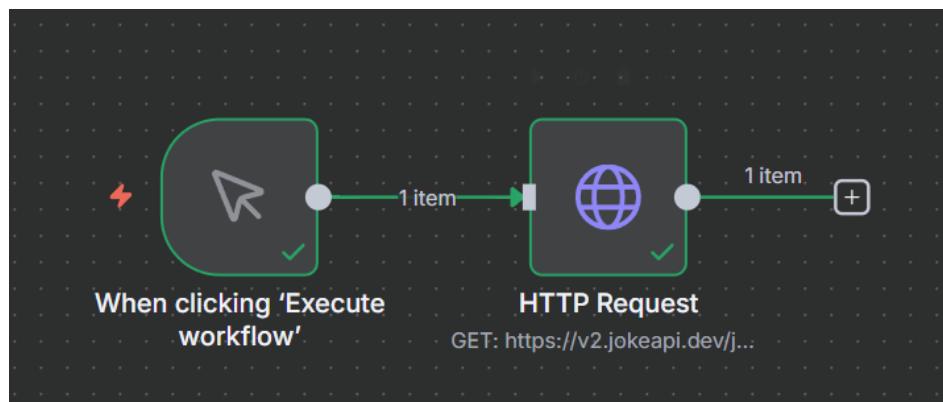
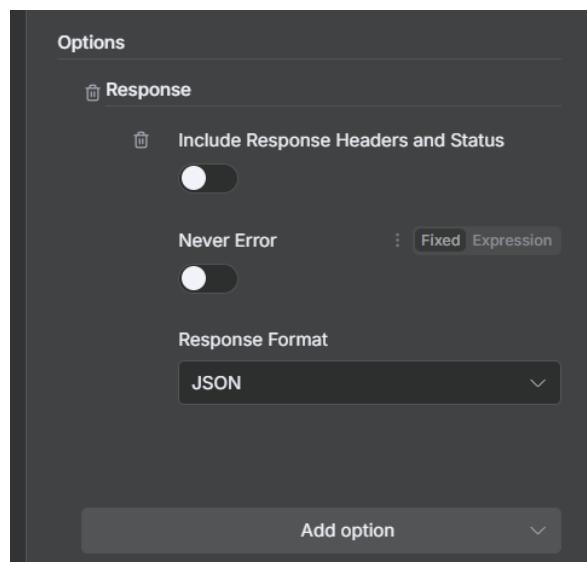
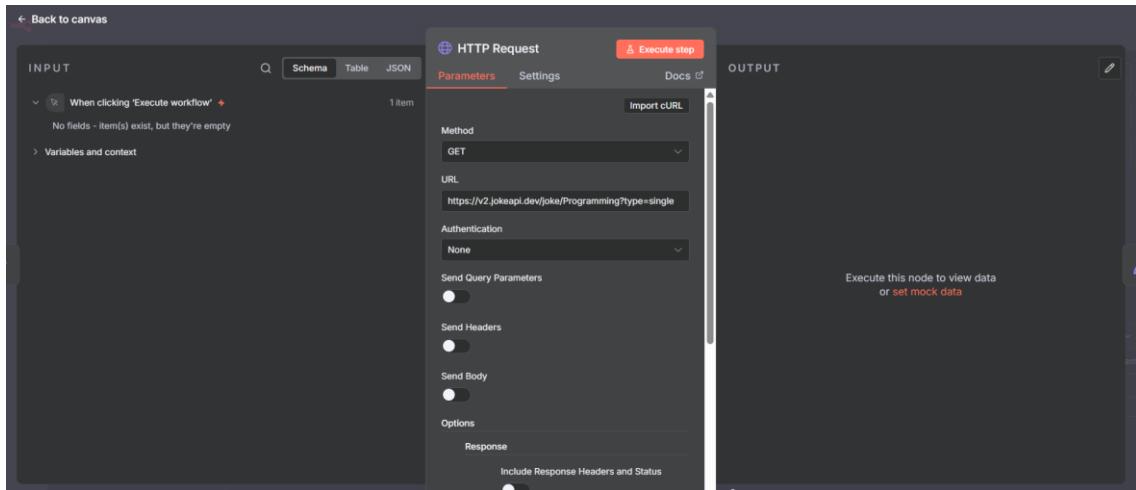
Por último vemos los datos en formato JSON.



4.2. Ejercicio Guiado 2: Interacción con una API REST Pública

1. Paso 1: Añadir y Configurar el HTTP Request Node:

Creamos un nodo HTTP Request Node y le indicamos la url asociada a la api. No nos olvidamos de establecer la respuesta en formato JSON.



2. Paso 2: Ejecución y Disección de la Respuesta:

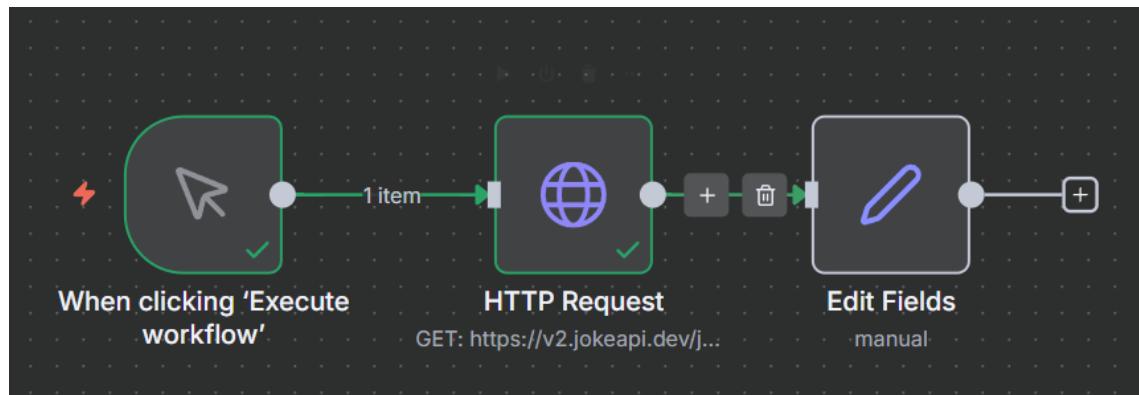
Al ejecutarlo el nodo devuelve un chiste aleatorio de la api a la que se ha conectado mediante la url. Podemos observar los diferentes parámetros de la respuesta del nodo:

HTTP Request Success in 193ms							
OUTPUT				Input			
error	category	type	joke	flags	id	safe	lang
false	Programming	single	"We messed up the keming again guys."	nsfw : false religious : false political : false racist : false sexist : false explicit : false	20	true	en

4.3. Ejercicio Guiado 3: Transformación y Limpieza de Datos

1. Paso 1: Añadir otro Edit Fields (Set) Node:

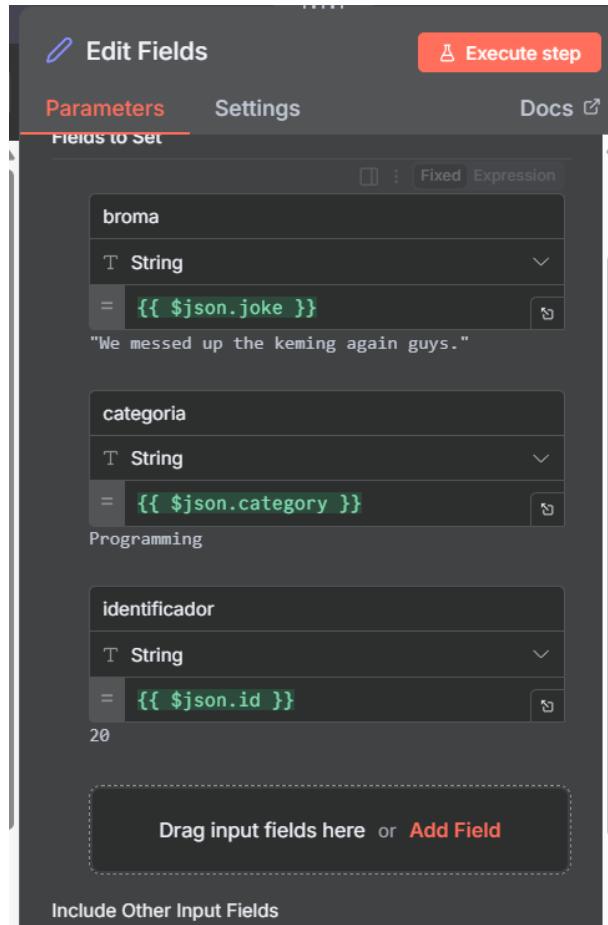
Conectamos un nuevo nodo Edit Fields (Set) a la salida del nodo HTTP Request



2. Paso 2 y 3: Mapeo de Campos con expresiones:

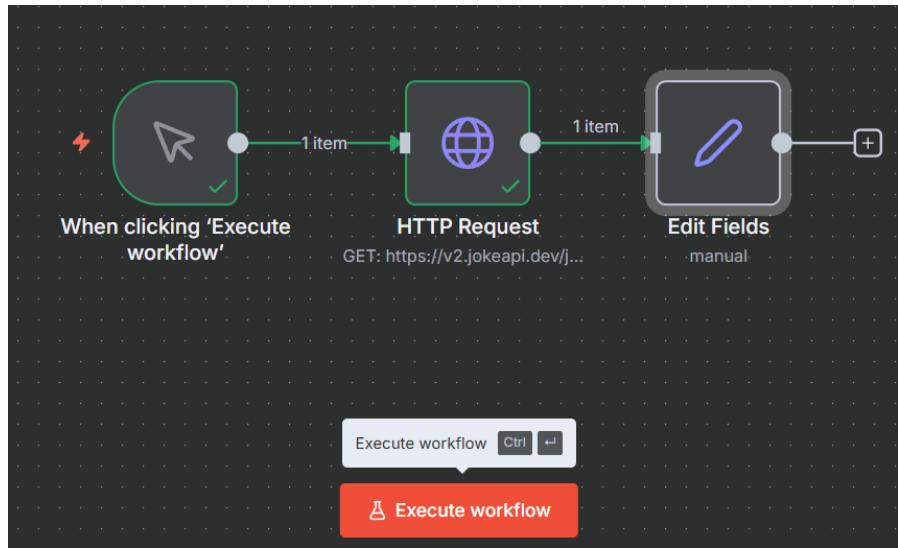
Añadimos los campos indicados en la práctica y a cada uno de ellos le asignamos una expresión, arrastrándola al campo valor, la cual será un valor que devolverá la salida del nodo http que conecta con la api.

The screenshot shows the Node-RED interface with the 'Edit Fields' node selected. The 'INPUT' tab displays the incoming data structure from the 'HTTP Request' node. The 'Parameters' tab is active, showing 'Mode: Manual Mapping'. In the 'Fields to Set' section, there is a mapping for the 'joke' field, which is set to 'String' and has 'value' assigned to it. A note at the bottom of the 'Fields to Set' section says 'Drop here to add the field joke'. The 'OUTPUT' tab is also visible.



3. Paso 4: Ejecución Final y Verificación:

Ejecutamos el workflow completo teniendo en cuenta todos los nodos. En la salida podemos observar la salida del nodo HTTP Request que devuelve un chiste de la api y se muestran algunos parámetros de este. Vemos que en la salida del nodo Edit Fields se muestran los campos indicados obtenidos de la salida del nodo anterior (broma, categoría, id).



Logs	Clear execution	Edit Fields Success in 47ms	Input	Output
Success in 42ms				
When clicking 'Execute work...				
HTTP Request				
Edit Fields				

HTTP Request Success in 216ms				Input	Output	...	
OUTPUT				Q	Filter	1 item	
error	category	type	joke	flags	id	safe	lang
false	Programming	single	A man is smoking a cigarette and blowing smoke rings into the air. His girlfriend becomes irritated with the smoke and says "Can't you see the warning on the cigarette pack? Smoking is hazardous to your health!" to which the man replies, "I am a programmer. We don't worry about warnings; we only worry about errors."	nsfw : false religious : false political : false racist : false sexist : false explicit : false	38	true	en