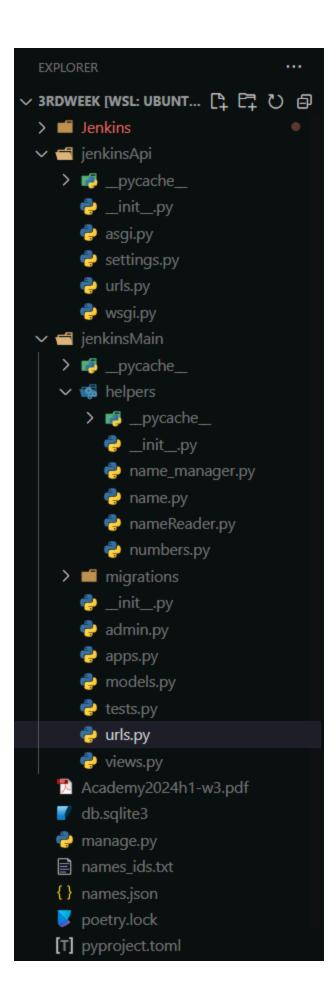
NOTE: I'm using wsl, so all commands are coming from there.

Create the folder, and initialize the repository:

Adding to repository:

```
Collegions | Section | Sec
```

Creating the API (I used DJANGO):



```
import json
from jenkinsMain.helpers.name import Name
def generate_name(name):
   name_ids = open("names_ids.txt", "r+")
    str_id = name_ids.readlines()[-1]
   new_name = Name(name, int(str_id))
   name_ids.write(str(new_name.id + 1) + "\n")
   name_ids.close()
    formatted_name = {"id": new_name.id, "name": new_name.name}
    save_data(formatted_name, "names.json")
def save_data(formatted_data: dict, file_name: str):
    json_file = open(file_name, "r")
    data: list = json.load(json_file)
   json_file.close()
   data.append(formatted_data)
    json_string = json.dumps(data)
    json_file = open(file_name, "w")
    json_file.write(json_string)
    json_file.close()
def update_name(id: int, new_name: str):
    json_file = open("names.json", "r")
    data: list = json.load(json_file)
   json_file.close()
   for name in data:
        if name["id"] == id:
           name["name"] = new_name
    json_string = json.dumps(data)
    json_file = open("names.json", "w")
    json_file.write(json_string)
    json_file.close()
def delete_name(id: int):
    json_file = open("names.json", "r")
    data: list = json.load(json_file)
    json_file.close()
   data = [name for name in data if name["id"] != id]
   json_string = json.dumps(data, indent=4) # indent for pretty-printing
   with open("names.json", "w") as json_file:
       json_file.write(json_string)
```

```
You, 15 hours ago | 1 author (You)

class Name:

def __init__(self, name: str, name_id: int):
    self.name = name
    self.id = name_id

6
```

```
nameReader.py jenkinsMain/helpers/nameReader.py/...

You, 15 hours ago | 1 author (You)

import json

def read_names():
    json_file = open("names.json", "r")
    data: list = json.load(json_file)
    json_file.close()
    return data
```

```
You, 3 minutes ago | 1 author (You)

# import json
import math
import random

def calculate_sin(number):
    return math.sin(math.radians(number))

def calculate_cos(number):
    return math.cos(math.radians(number))

def generate_random_number(start, end):
    return random.randint(start, end)
```

```
🕏 views.py M jenkinsMain/views.py/ 😭 delete_name
     from django.http import JsonResponse
     from rest_framework import status
     from rest_framework.decorators import api_view
     from jenkinsMain.helpers import name_manager, numbers
     from jenkinsMain.helpers.nameReader import read_names
     @api_view(["POST", "GET"])
         if request.method == "GET":
             return JsonResponse(data=read_names(), status=status.HTTP_200_0K, safe=False)
         elif request.method == "POST":
             name_manager.generate_name(request.data["name"])
             return JsonResponse(
   data={"message": "data successfully created"},
                  status=status.HTTP_201_CREATED,
                  safe=False,
     @api_view(["PUT"])
     def update_name(request, name_id: int):
         name_manager.update_name(name_id, request.data["name"])
         return JsonResponse(
             data={"message": "data successfully updated"},
             status=status.HTTP_200_OK,
             safe=False,
     @api_view(["DELETE"])
     def delete_name(request, name_id: int):
             name_manager.delete_name(name_id)
             return JsonResponse(
                 data={"message": "Name successfully deleted"},
                 status=status.HTTP_204_NO_CONTENT,
         except Exception as e:
             return JsonResponse(
                 data={"message": str(e)}, status=status.HTTP_500_INTERNAL_SERVER_ERROR
```

```
@api view(["POST"])
def sin_of_number(request):
    try:
        number = request.data.get("number")
        result = numbers.calculate_sin(number)
        return JsonResponse({"sin": result}, status=status.HTTP_200_0K)
    except (ValueError, TypeError):
        return JsonResponse(
            {"error": "Invalid input"}, status=status.HTTP_400_BAD_REQUEST
@api_view(["POST"])
def cos_of_number(request):
        number = request.data.get("number")
        result = numbers.calculate_cos(number)
        return JsonResponse({"cos": result}, status=status.HTTP_200_OK)
    except (ValueError, TypeError):
        return JsonResponse(
            {"error": "Invalid input"}, status=status.HTTP_400_BAD_REQUEST
@api_view(["GET"])
def random_number(request):
    try:
        start = int(request.query_params.get("start", 0))
        end = int(request.query_params.get("end", 100))
        result = numbers.generate_random_number(start, end)
        return JsonResponse({"random_number": result}, status=status.HTTP_200_0K)
    except (ValueError, TypeError):
        return JsonResponse(
            {"error": "Invalid input"}, status=status.HTTP_400_BAD_REQUEST
```

Now, using the pylint library to check some files:

```
② on ③ ▶ bash ② 3.10.12 ▶ main ■ ②?39 ~8

○ 06:59:30 | ∰ 5 Mar, Tuesday | □ in ⑥ → DevOps → miniProjects → 3rdWeek

→ python -m pylint manage.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/helpers/__ini
t__.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/helpers/name.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/helpers/name_manager.py /home/brayanmarin/DevOps/miniProjects/3rd
Week/jenkinsMain/helpers/nameReader.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/helpers/numbers.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/migrations/__init__.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/__init__.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/admin.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/urls.py /home/brayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/urls
ayanmarin/DevOps/miniProjects/3rdWeek/jenkinsMain/views.py
 ***** Module manage
manage.py:11:8: C0415: Import outside toplevel (django.core.management.execute_from_command_line) (imp
ort-outside-toplevel)
******* Module jenkinsMain.helpers.name
jenkinsMain/helpers/name.py:1:0: C0114: Missing module docstring (missing-module-docstring)
jenkinsMain/helpers/name.py:1:0: C0115: Missing class docstring (missing-class-docstring)
jenkinsMain/helpers/name.py:1:0: R0903: Too few public methods (0/2) (too-few-public-methods)
********* Module jenkinsMain.helpers.name_manager
jenkinsMain/helpers/name_manager.py:1:0: C0114: Missing module docstring (missing-module-docstring)
jenkinsMain/helpers/name_manager.py:6:0: C0116: Missing function or method docstring (missing-function
 -docstring)
 jenkinsMain/helpers/name_manager.py:7:15: W1514: Using open without explicitly specifying an encoding
(unspecified-encoding)
jenkinsMain/helpers/name_manager.py:7:15: R1732: Consider using 'with' for resource-allocating operati
ons (consider-using-with)
jenkinsMain/helpers/name_manager.py:22:0: C0116: Missing function or method docstring (missing-functio
n-docstring)
 jenkinsMain/helpers/name_manager.py:23:16: W1514: Using open without explicitly specifying an encoding
  (unspecified-encoding)
 jenkinsMain/helpers/name_manager.py:23:16: R1732: Consider using 'with' for resource-allocating operat
ions (consider-using-with)
jenkinsMain/helpers/name_manager.py:29:16: W1514: Using open without explicitly specifying an encoding
  (unspecified-encoding)
 jenkinsMain/helpers/name_manager.py:29:16: R1732: Consider using 'with' for resource-allocating operat
ions (consider-using-with)
jenkinsMain/helpers/name_manager.py:34:0: C0116: Missing function or method docstring (missing-functio
n-docstring)
jenkinsMain/helpers/name_manager.py:34:16: W0622: Redefining built-in 'id' (redefined-builtin)
jenkinsMain/helpers/name_manager.py:35:16: W1514: Using open without explicitly specifying an encoding
  (unspecified-encoding)
jenkinsMain/helpers/name_manager.py:35:16: R1732: Consider using 'with' for resource-allocating operat
 ions (consider-using-with)
 jenkinsMain/helpers/name_manager.py:44:16: W1514: Using open without explicitly specifying an encoding
  (unspecified-encoding)
jenkinsMain/helpers/name_manager.py:44:16: R1732: Consider using 'with' for resource-allocating operat
ions (consider-using-with)
jenkinsMain/helpers/name_manager.py:49:0: C0116: Missing function or method docstring (missing-functio
 n-docstring)
jenkinsMain/helpers/name_manager.py:49:16: W0622: Redefining built-in 'id' (redefined-builtin)
jenkinsMain/helpers/name_manager.py:50:16: W1514: Using open without explicitly specifying an encoding
  (unspecified-encoding)
```

```
jenkinsMain/helpers/nameReader.py:1:0: C0114: Missing module docstring (missing-module-docstring) jenkinsMain/helpers/nameReader.py:1:0: C0103: Module name "nameReader" doesn't conform to snake_case n
aming style (invalid-name)
jenkinsMain/helpers/nameReader.py:4:0: C0116: Missing function or method docstring (missing-function-d
jenkinsMain/helpers/nameReader.py:5:16: W1514: Using open without explicitly specifying an encoding (u
nspecified-encoding)
jenkinsMain/helpers/nameReader.py:5:16: R1732: Consider using 'with' for resource-allocating operation
s (consider-using-with)
********* Module jenkinsMain.helpers.numbers
jenkinsMain/helpers/numbers.py:1:0: C0114: Missing module docstring (missing-module-docstring)
jenkinsMain/helpers/numbers.py:6:0: C0116: Missing function or method docstring (missing-function-docs
jenkinsMain/helpers/numbers.py:10:0: C0116: Missing function or method docstring (missing-function-doc
jenkinsMain/helpers/numbers.py:14:0: C0116: Missing function or method docstring (missing-function-doc
string)
jenkinsMain/helpers/numbers.py:1:0: W0611: Unused import json (unused-import)
******** Module jenkinsMain
jenkinsMain/__init__.py:1:0: C0103: Module name "jenkinsMain" doesn't conform to snake_case naming sty
le (invalid-name)
********* Module jenkinsMain.admin
jenkinsMain/admin.py:1:0: C0114: Missing module docstring (missing-module-docstring)
jenkinsMain/admin.py:1:0: E0401: Unable to import 'django.contrib' (import-error)
jenkinsMain/admin.py:1:0: W0611: Unused admin imported from django.contrib (unused-import)
 ************ Module jenkinsMain.urls
jenkinsMain/urls.py:1:0: C0114: Missing module docstring (missing-module-docstring)
jenkinsMain/urls.py:1:0: E0401: Unable to import 'django.contrib' (import-error) jenkinsMain/urls.py:2:0: E0401: Unable to import 'django.urls' (import-error)
jenkinsMain/urls.py:1:0: W0611: Unused admin imported from django.contrib (unused-import)
************ Module jenkinsMain.views
jenkinsMain/views.py:1:0: C0114: Missing module docstring (missing-module-docstring)
 jenkinsMain/views.py:1:0: E0401: Unable to import 'django.http' (import-error)
jenkinsMain/views.py:2:0: E0401: Unable to import 'rest_framework' (import-error)
 jenkinsMain/views.py:3:0: E0401: Unable to import 'rest_framework.decorators' (import-error)
jenkinsMain/views.py:11:0: C0116: Missing function or method docstring (missing-function-docstring) jenkinsMain/views.py:12:4: R1705: Unnecessary "elif" after "return", remove the leading "el" from "eli
f" (no-else-return)
jenkinsMain/views.py:11:0: R1710: Either all return statements in a function should return an expressi
on, or none of them should. (inconsistent-return-statements)
jenkinsMain/views.py:28:0: C0116: Missing function or method docstring (missing-function-docstring) jenkinsMain/views.py:38:0: C0116: Missing function or method docstring (missing-function-docstring) jenkinsMain/views.py:45:11: W0718: Catching too general exception Exception (broad-exception-caught)
 jenkinsMain/views.py:38:16: W0613: Unused argument 'request' (unused-argument)
 jenkinsMain/views.py:54:0: C0116: Missing function or method docstring (missing-function-docstring)
jenkinsMain/views.py:64:0: C0116: Missing function or method docstring (missing—function—docstring)
jenkinsMain/views.py:74:0: C0116: Missing function or method docstring (missing—function—docstring)
```

Your code has been rated at 3.04/10

Using black library:

Using isort:



Creating the server of Jenkins:

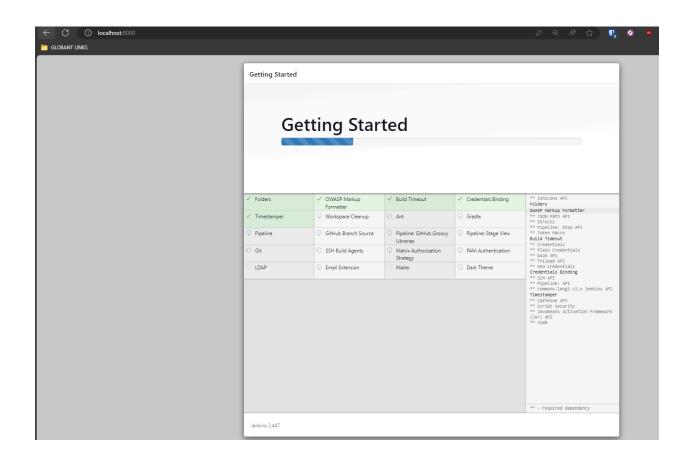
```
version: '3.8'
networks
 trainingNetwork
    external: true
services:
  gitea
   image: gitea/gitea:1.21.5
    environment:
     - USER_UID=1000
     USER_GID=1000

    TZ=America/Bogota

    restart: always
    networks

    trainingNetwork

    volumes
     - .gitea:/data
   ports:
  jenkins:
   image: jenkins/jenkins:alpine3.19-jdk21
    ports
   privileged: true
   user root
    volumes
     - jenkins-data:/var/jenkins-data
     - /var/run/docker.sock:/var/run/docker.sock
   networks:
     - trainingNetwork
volumes:
  jenkins-data:
   external: true
 onlyJava
   external: true
```



Installing Gitea and Docker in Jenkins:

Gitea	✓ Success
SSH server	Success
Gitea Checks	Success
Loading plugin extensions	Success
Cloud Statistics	Success
Docker Commons	Success
Apache HttpComponents Client 5.x API	Success
Docker API	Success
Docker	Success
Docker Commons	Success
Docker Pipeline	Success
Docker API	Success
Javadoc	Success
JSch dependency	Success
Maven Integration	Success
docker-build-step	Success
Oracle Java SE Development Kit Installer	Success
Command Agent Launcher	Success
Docker Compose Build Step	Success
Docker Slaves	Success
CloudBees Docker Traceability	Success
Loading plugin extensions	Success

Creating the pipeline:

Week3JenkinsBrayanMarin

» A job already exists with the name 'Week3JenkinsBrayanMarin'



Freestyle project

Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.



Maven project

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.



Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



Folder

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.



Multibranch Pipeline

Creates a set of Pipeline projects according to detected branches in one SCM repository.



Organization Folder

Creates a set of multibranch project subfolders by scanning for repositories.

If you want to create a new item from other existing, you can use this option:



Copy from

Type to autocomplete

ОК