

# MLOPS ASSIGNMENT#1

## **Group Members:**

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## **Link to the Original Repository:**

<https://github.com/mattnedrich/GradientDescentExample>

## **Link to Our Repository:**

[https://github.com/NUCES-ISB/i192007\\_i190560\\_A1](https://github.com/NUCES-ISB/i192007_i190560_A1)

## **Introduction:**

The repository we choose was related to implementing gradient descent manually. Gradient descent is the core of Machine learning, as well as deep learning algorithms mostly gradient descent in libraries, is provided abstractly and we do not need to implement it but this repository explains and manually implements it so that users can understand better the workflow of it.

## **Steps Followed in Assignment:**

- Creation of two separate branches of the repository

Default branch			
master	Updated 1 hour ago by Ali-Shah2022000	✓	Default
Your branches			
i190560	Updated 11 minutes ago by hassansaif-0	✓	31   2 #8 <span>Open</span>
Active branches			
i192007	Updated 10 minutes ago by Ali-Shah2022000	✓	41   3 <span>New pull request</span>

- Individual scaffolding in each branch separate workflows created in each branch

✓ Delete main.yml	CodeQL #7: Commit 1588cac pushed by Ali-Shah2022000	master	1 hour ago	...
			5m 32s	
✓ Update readme.md	Python application test with Github Actions #20: Commit 1a6143d pushed by hassansaif-0	i190560	1 hour ago	...
			24s	
✓ editedAllBranches	Python application test with Github Actions #19: Commit 801ed80 pushed by Ali-Shah2022000	i192007	1 hour ago	...
			25s	

- Generating Makefiles and completion of workflows

8 lines (7 sloc) | 154 Bytes

```

1 install:
2     pip install --upgrade pip && \
3     pip install -r requirements.txt
4
5 format:
6     black *.py
7 lint:
8     pylint --fail-under=1 gradient_descent_example.py

```

[Give feedback](#)

5 lines (5 sloc) | 37 Bytes

```

1 numpy
2 black
3 pylint
4 pytest
5 pytest-cov

```

- Running the CodeQL for the repository and finding out security analysis of repository.

✓ I190560	CodeQL #8: Pull request #4 synchronize by hassansaif-0	i190560	1 hour ago	...
			4m 16s	

2023-02-24T15:54:26.5720835Z ##[section]Starting: Prepare job analyze  
2023-02-24T15:54:26.5722761Z Evaluating strategy

**2023-02-24T15:54:26.5723529Z Creating job 'python'**  
**2023-02-24T15:54:26.5723796Z Evaluating timeout**  
**2023-02-24T15:54:26.5723838Z Evaluating cancel timeout**  
**2023-02-24T15:54:26.5723881Z Evaluating continue on error**  
**2023-02-24T15:54:26.5723918Z Evaluating target**  
**2023-02-24T15:54:26.5725372Z ##[section]Finishing: Prepare job analyze**

**Above is the log for CodeQL analysis and no such security vulnerability was found in the repository possible cause was probably the code was too simple with no external much dependencies which eventually cause no security concerns in the repository.**