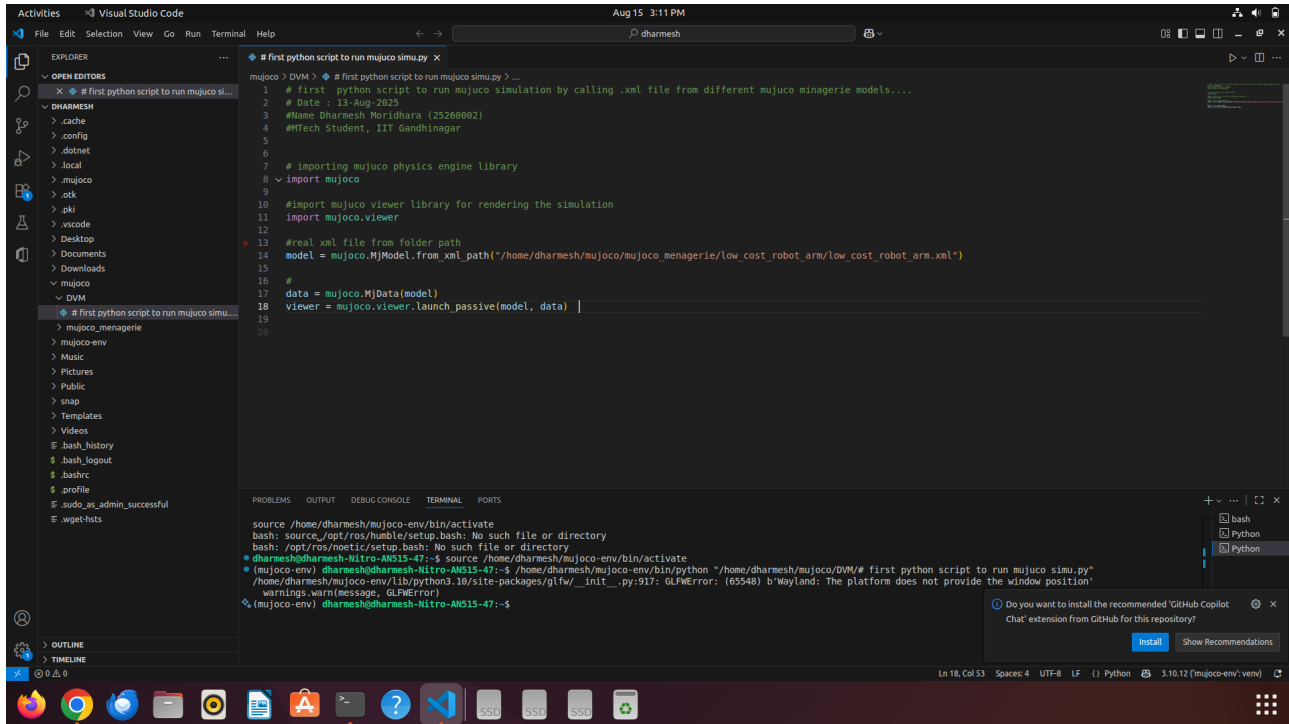


Name : Dharmesh Moridhara
Roll No:25260002
Mtech Student
Mech.Engg.

Tutorial-1

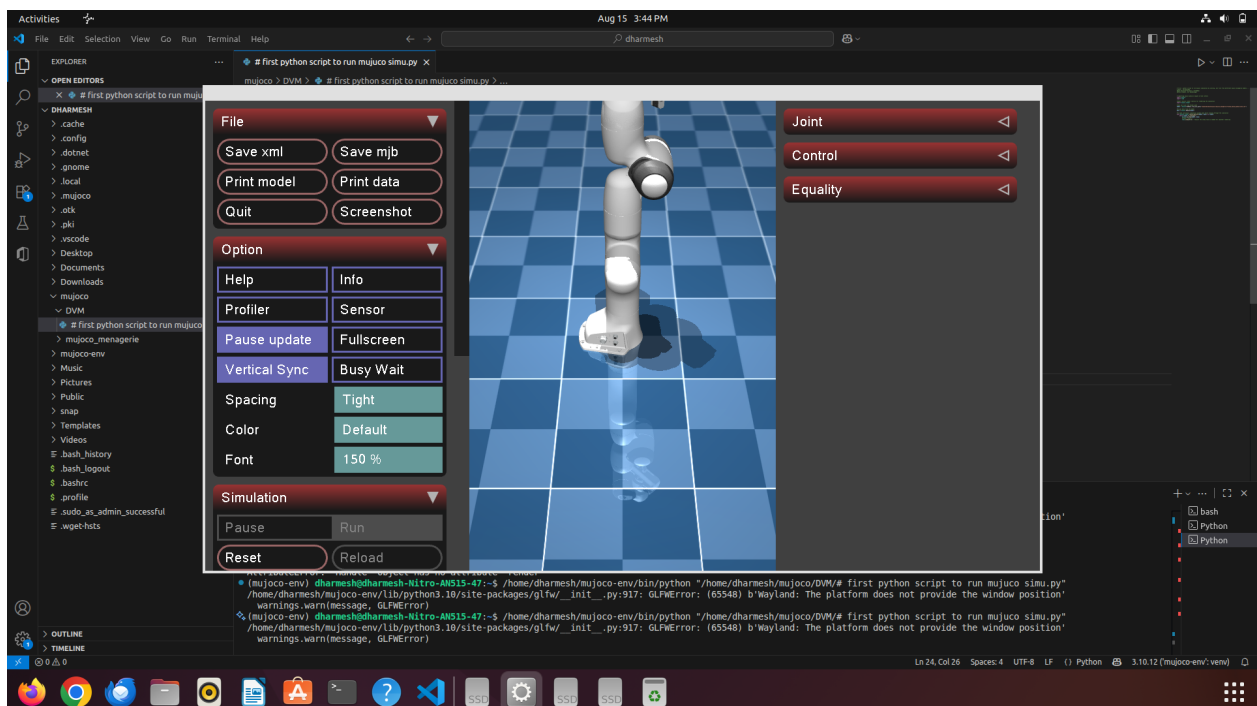
Task-1

Launch MuJoCo inside ROS 2 using mujoco ros.*



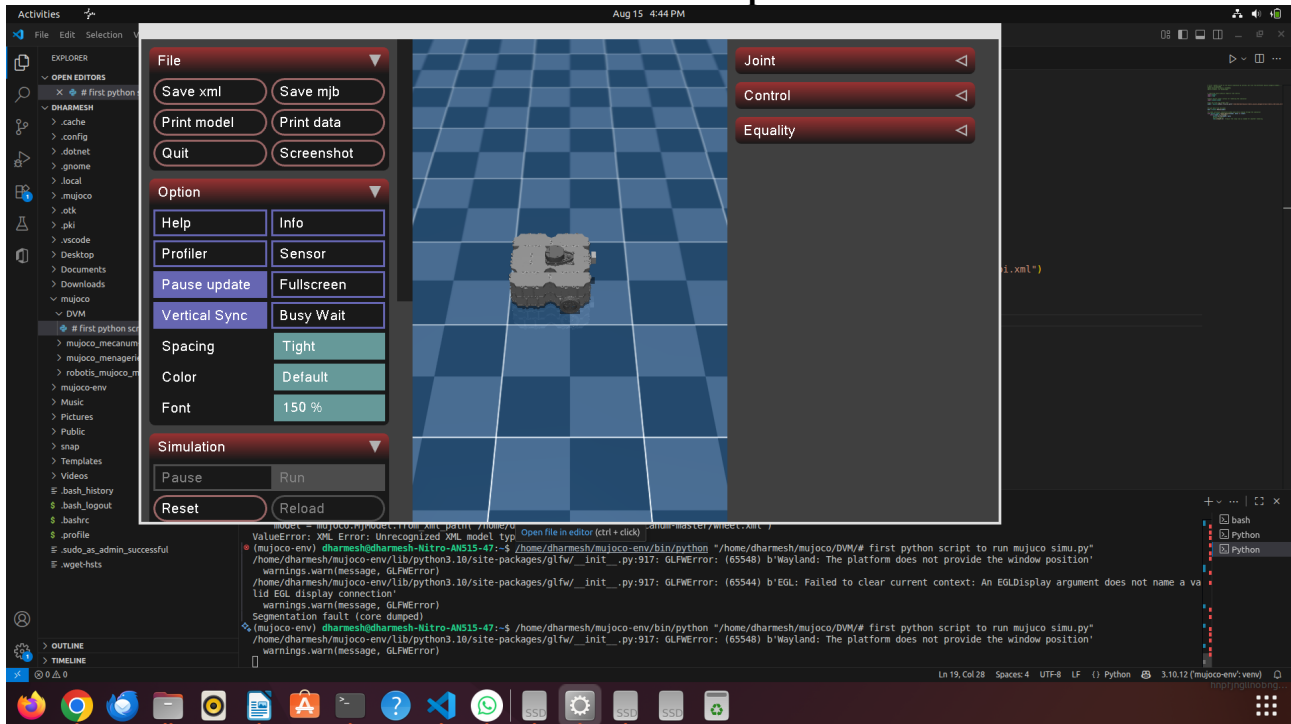
Task 2

Simulate Franka Research 3 serial chain manipulator.*



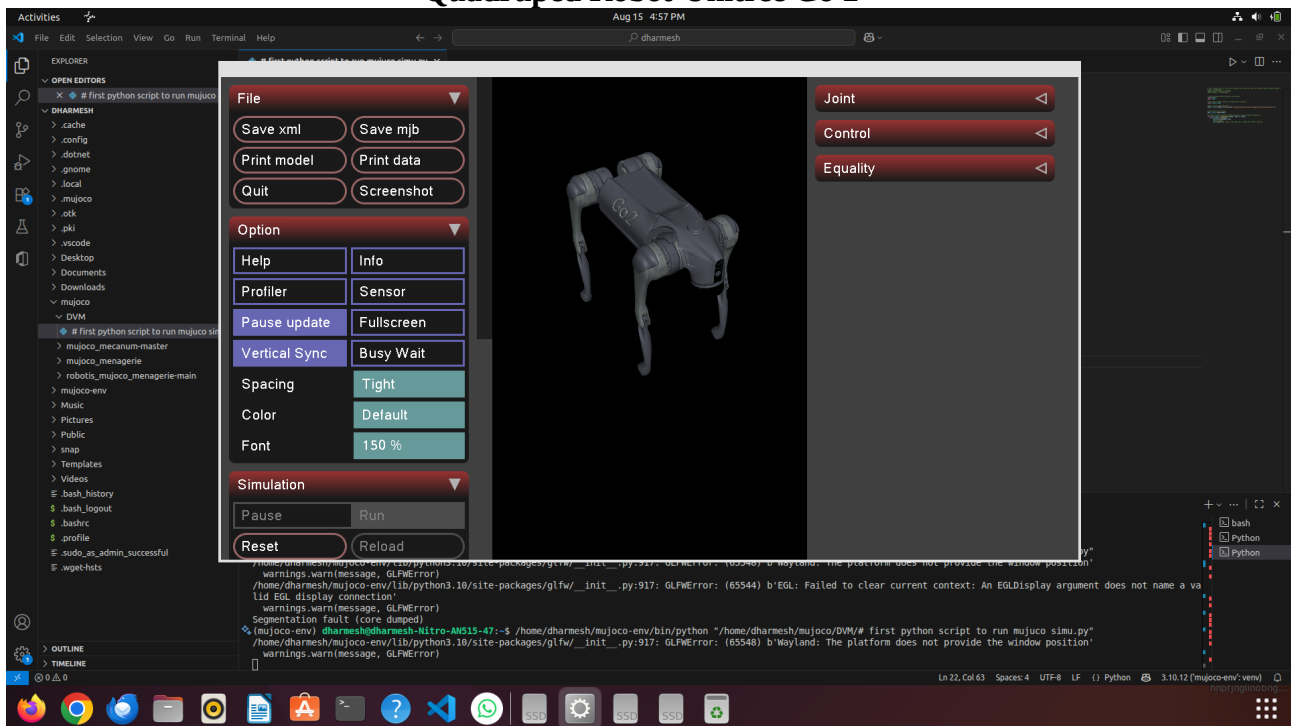
Task-3

Wheeled Mobile Robot-TurtleBot Waffle pi differential drive robot*



Task-4

Quadruped Robot-Unitree Go 2*



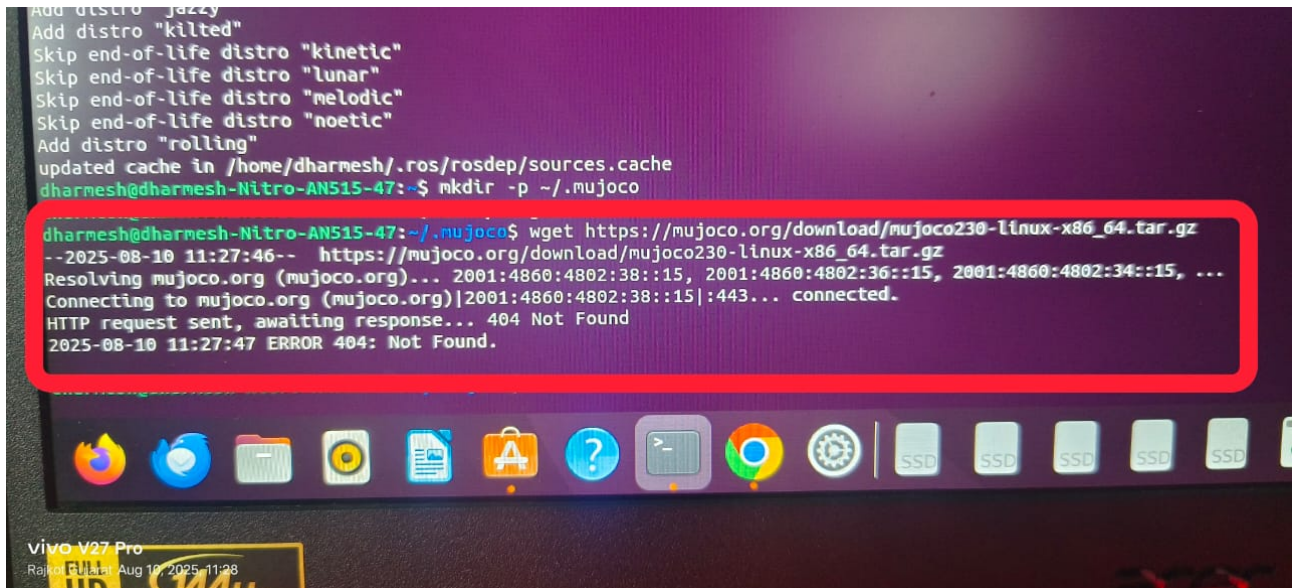
Problems that I faced/facing:-

Problem-1^s

when I tried to install Linux I accidentally made window partition dynamically. Then I backup my data and re install Linux.

Problem-2^s

No package like “mujoco230-linux-x86_64.tar.gz” so search on google and download in install “mujoco-3.3.5-linux-x86_64.tar.gz” from mujoco (<https://github.com/google-deepmind/mujoco/releases>)

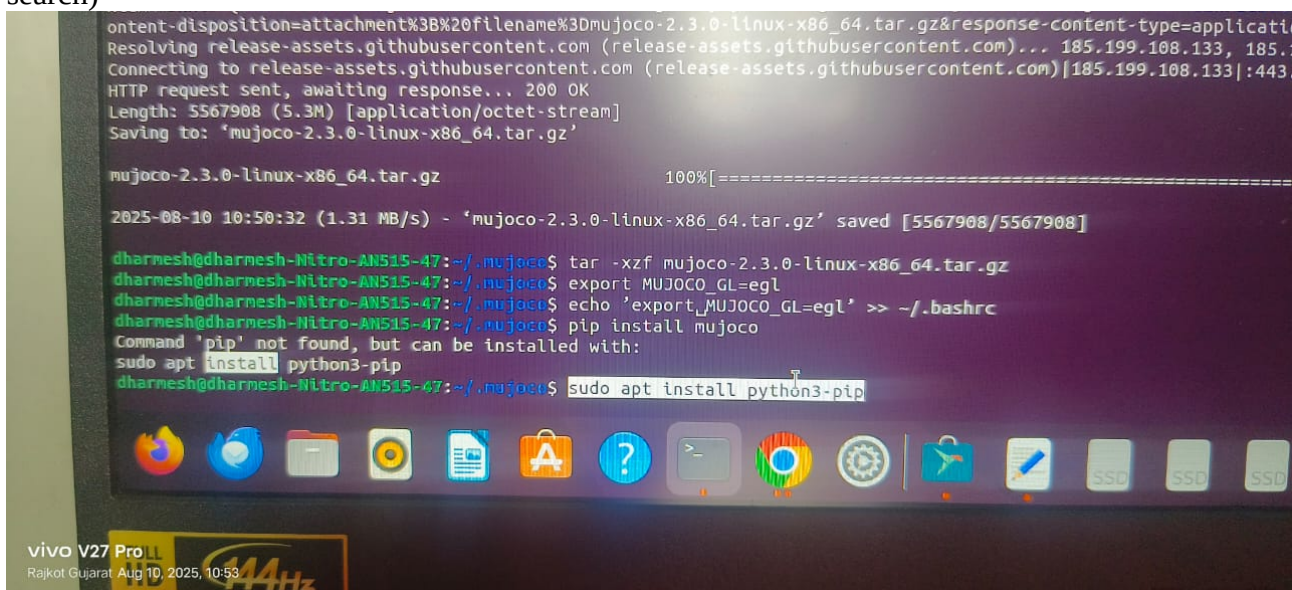


```
Add distro "jazzy"
Add distro "killed"
Skip end-of-life distro "kinetic"
Skip end-of-life distro "lunar"
Skip end-of-life distro "melodic"
Skip end-of-life distro "noetic"
Add distro "rolling"
updated cache in /home/dharmesh/.ros/rosdep/sources.cache
dharmesh@dharmesh-Nitro-AN515-47:~$ mkdir -p ~/.mujoco

dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ wget https://mujoco.org/download/mujoco230-linux-x86_64.tar.gz
--2025-08-10 11:27:46-- https://mujoco.org/download/mujoco230-linux-x86_64.tar.gz
Resolving mujoco.org (mujoco.org)... 2001:4860:4802:38::15, 2001:4860:4802:36::15, ...
Connecting to mujoco.org (mujoco.org)|2001:4860:4802:38::15|:443... connected.
HTTP request sent, awaiting response... 404 Not Found
2025-08-10 11:27:47 ERROR 404: Not Found.
```

Problem-3^s

no pip command while installing. So I install python3 (I search that from chatGPT and Google search)



```
Content-Disposition: attachment; filename="mujoco-2.3.0-linux-x86_64.tar.gz"; response-content-type=application/gzip
Resolving release-assets.githubusercontent.com (release-assets.githubusercontent.com)... 185.199.108.133, 185.199.108.134, ...
Connecting to release-assets.githubusercontent.com (release-assets.githubusercontent.com)|185.199.108.133|:443...
HTTP request sent, awaiting response... 200 OK
Length: 5567908 (5.3M) [application/octet-stream]
Saving to: 'mujoco-2.3.0-linux-x86_64.tar.gz'

mujoco-2.3.0-linux-x86_64.tar.gz
100%[=====] 5.3M 1.31 MB/s

2025-08-10 10:50:32 (1.31 MB/s) - 'mujoco-2.3.0-linux-x86_64.tar.gz' saved [5567908/5567908]

dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ tar -xzf mujoco-2.3.0-linux-x86_64.tar.gz
dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ export MUJOCO_GL=egl
dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ echo 'export MUJOCO_GL=egl' >> ~/.bashrc
dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ pip install mujoco
Command 'pip' not found, but can be installed with:
sudo apt install python3-pip
dharmesh@dharmesh-Nitro-AN515-47:~/.mujoco$ sudo apt install python3-pip
```

Problem-4^s

when I tried to import mujoco, time, mujoco.viewer, get the data from XML file and run the python file by clicking play button, the simulation window just pop up and vanished instantly because it run XML file only a time.

So I did chat GPT and it tell me that you need to add while loop to continue simulation. Then I add while loop to continue pop the simulation window.

still I am not able to use run simulation. When I run the XML script trough python it show me just

note:-

**run simulation using XML file from the 'https://github.com/google-deepmind/mujoco_menagerie'
\$use of Google search and chatGPT for problem solving.*