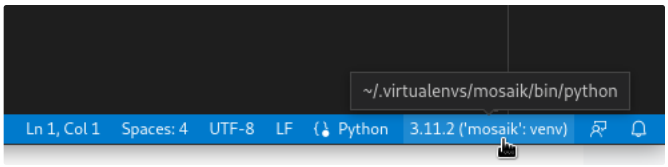
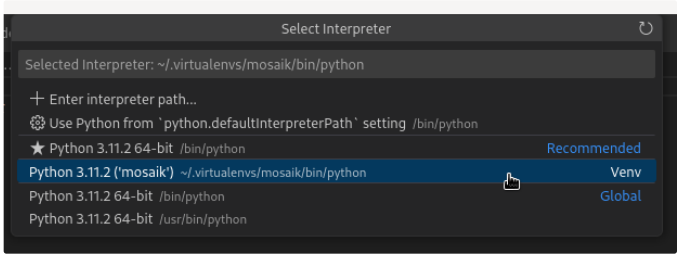
LEC Co-Simulation Setup

Installation Steps:

- Docker:
  - Install Docker Fedora
  - Postinstall Docker
- Postman:
  - Download
  - Install and Integration
- VSCode
  - Installation
  - Install Python extension
- Mosaik
- ```bash
  sudo pip install -U virtualenv
  virtualenv -p /usr/bin/python ~/.virtualenvs/mosaik
  source ~/.virtualenvs/mosaik/bin/activate
  pip install mosaik
  pip install pvlib
  pip install matplotlib
  pip install paho-mqtt
  pip install mosaik-csv
  ```
- CrateDB
  - Correct virtual memory setup see Documentation
  - ```bash
    sysctl -w vm.max_map_count=262144
    ```

Simulation steps:

- ```bash
  docker compose build
  docker compose up -d
  ```
- make sure the correct virtual environment is loaded
  - in VSCode select the virtual environment as Interpreter
  - 

  - 

- make sure all entities are loaded in the Context Broker
  - Use Postman and import the `IoT Agent Comission ISIE.postman_collection.json`
  ```

    - Execute all POST request, with the exception of the last. (Otherwise all entities will be deleted)
  - Start `scenario.py` from the `Load Balancer Demo` directory

Usefull commands

- docker

  ## Useful commands

  - delete all volumes
    ```
    docker volume rm $(docker volume ls -q)
    ```

2 Linked References

mar 9th, 2023

Morning:

- Documented [[LEC Co-Simulation Setup]]

etfa

Scenario ➤ Data Acquistion

- Use [[LEC Co-Simulation Setup]] as legacy devices

Unlinked References