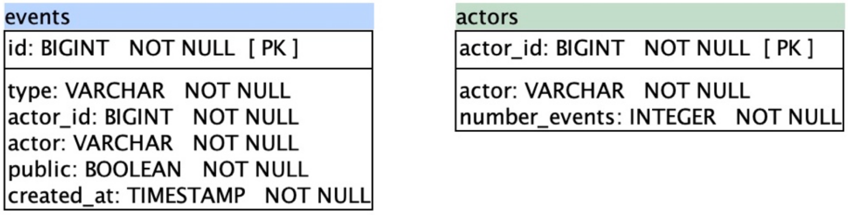
Week2 : 02-data-modelling-ii

Data Model

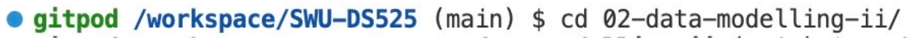


```
events
id: BIGINT   NOT NULL  [ PK ]
type: VARCHAR   NOT NULL
actor_id: BIGINT   NOT NULL
actor: VARCHAR   NOT NULL
public: BOOLEAN   NOT NULL
created_at: TIMESTAMP   NOT NULL

actors
actor_id: BIGINT   NOT NULL  [ PK ]
actor: VARCHAR   NOT NULL
number_events: INTEGER   NOT NULL
```

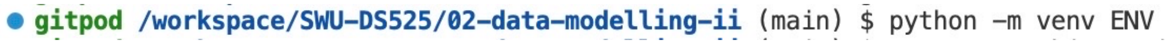
Project Methodology

1. Access project repository on gitpod “gitpod /workspace/SWU-DS525/02-data-modelling-ii”



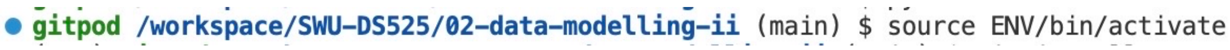
```
● gitpod /workspace/SWU-DS525 (main) $ cd 02-data-modelling-ii/
```

2. Create virtual environment named “ENV” (only first time)



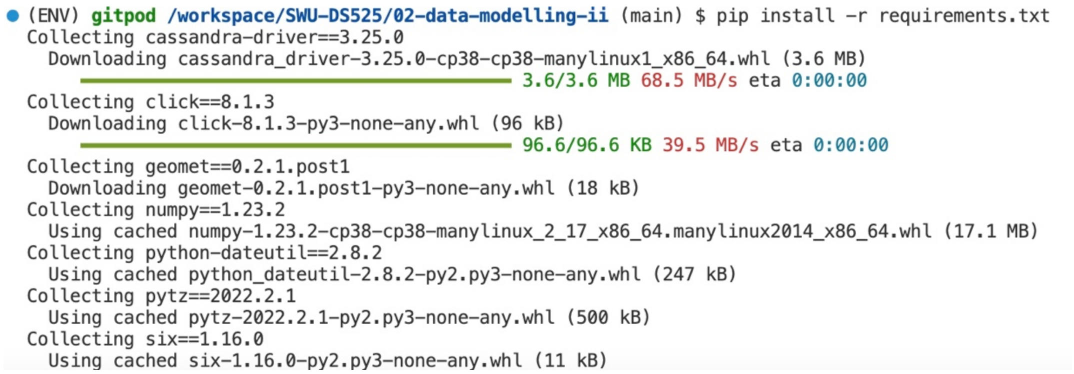
```
● gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ python -m venv ENV
```

3. Activate virtual environment

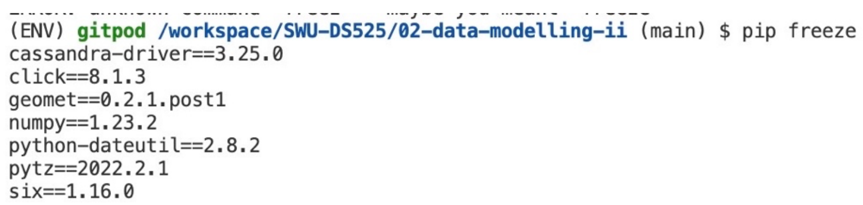


```
● gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ source ENV/bin/activate
```

4. Install required libraries

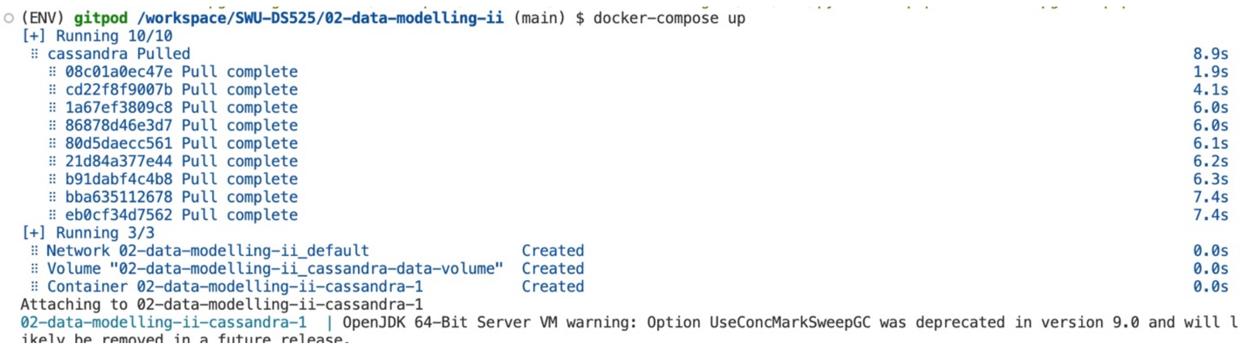


```
● (ENV) gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ pip install -r requirements.txt
  Collecting cassandra-driver==3.25.0
    Downloading cassandra_driver-3.25.0-cp38-cp38-manylinux1_x86_64.whl (3.6 MB)
       ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 3.6/3.6 MB 68.5 MB/s eta 0:00:00
  Collecting click==8.1.3
    Downloading click-8.1.3-py3-none-any.whl (96 kB)
       ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 96.6/96.6 KB 39.5 MB/s eta 0:00:00
  Collecting geomet==0.2.1.post1
    Downloading geomet-0.2.1.post1-py3-none-any.whl (18 kB)
  Collecting numpy==1.23.2
    Using cached numpy-1.23.2-cp38-cp38-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (17.1 MB)
  Collecting python-dateutil==2.8.2
    Using cached python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
  Collecting pytz==2022.2.1
    Using cached pytz-2022.2.1-py2.py3-none-any.whl (500 kB)
  Collecting six==1.16.0
    Using cached six-1.16.0-py2.py3-none-any.whl (11 kB)
```



```
(ENV) gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ pip freeze
cassandra-driver==3.25.0
click==8.1.3
geomet==0.2.1.post1
numpy==1.23.2
python-dateutil==2.8.2
pytz==2022.2.1
six==1.16.0
```

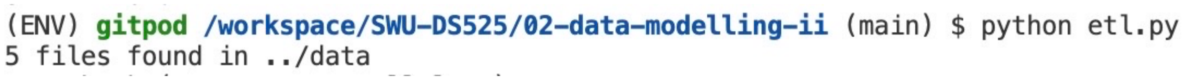
5. Start Docker with Cassandra services



```
○ (ENV) gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ docker-compose up
  [+] Running 10/10
   ⠿ cassandra Pulled                                                                   8.9s
     ⠿ 08c01a0ec47e Pull complete                                                       1.9s
     ⠿ cd22f8f9007b Pull complete                                                       4.1s
     ⠿ 1a67ef3809c8 Pull complete                                                       6.0s
     ⠿ 86878d46e3d7 Pull complete                                                       6.0s
     ⠿ 80d5daecc561 Pull complete                                                       6.1s
     ⠿ 21d84a377e44 Pull complete                                                       6.2s
     ⠿ b91dabf4c4b8 Pull complete                                                       6.3s
     ⠿ bba635112678 Pull complete                                                       7.4s
     ⠿ eb0cf34d7562 Pull complete                                                       7.4s
  [+] Running 3/3
   ⠿ Network 02-data-modelling-ii_default                  Created                      0.0s
   ⠿ Volume "02-data-modelling-ii_cassandra-data-volume"   Created                      0.0s
   ⠿ Container 02-data-modelling-ii-cassandra-1            Created                      0.0s
  Attaching to 02-data-modelling-ii-cassandra-1
  02-data-modelling-ii-cassandra-1  | OpenJDK 64-Bit Server VM warning: Option UseConcMarkSweepGC was deprecated in version 9.0 and will l
  ikely be removed in a future release.
```

6. Create tables, insert data, and query data through python command by file “etl.py”

Python etl.py



```
(ENV) gitpod /workspace/SWU-DS525/02-data-modelling-ii (main) $ python etl.py
5 files found in ../data
```

7. Environment Deactivation by;

Docker-compose down and *deactivate*