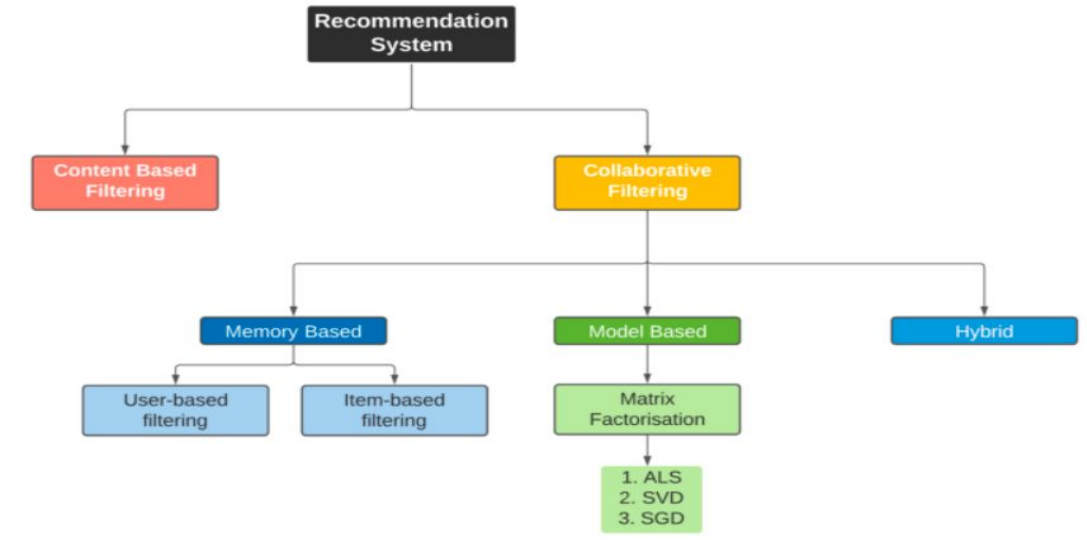
Movie Recommendation with MLlib

Implementtaion2

Ashritha Lopelli

Introduction

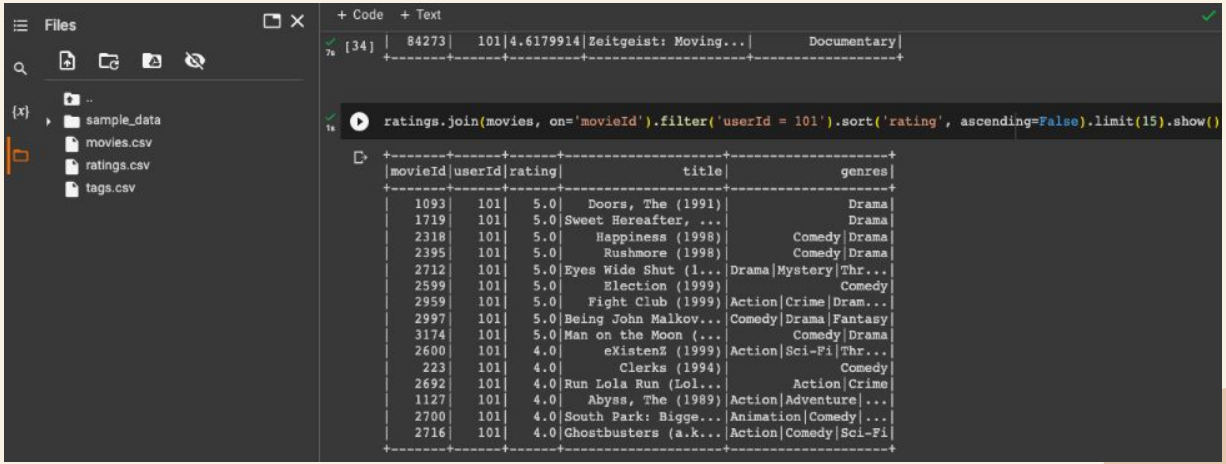
- The MovieLens dataset is widely used as a benchmark for evaluating recommendation systems.
- The program utilizes PySpark, a Python library designed for distributed data processing, to leverage collaborative filtering techniques.
- This Python program showcases the implementation of a recommendation engine that utilizes the ALS (Alternating Least Squares) model on the MovieLens dataset.
- By applying collaborative filtering, the program generates personalized movie recommendations for users based on their preferences and historical ratings.



Implementation

Steps on Colab:

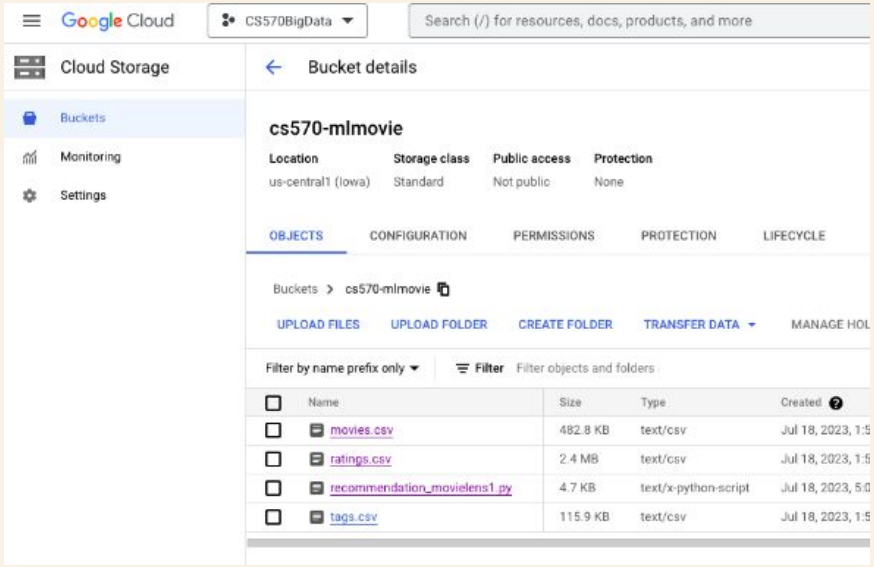
- Download the recommendation_movielens1.py file, movies.csv, rating.csv, tags.csv files.
- Open and login to your Google colab.
- Upload the recommendation_movielens1 file to the colab.
- Also add the movies.csv, rating.csv, tags.csv files to the folder of the colab.
- Run all the command on the recommendation_movielens1 file and then Download this file as .py file.



Implementation

Steps on GCP :

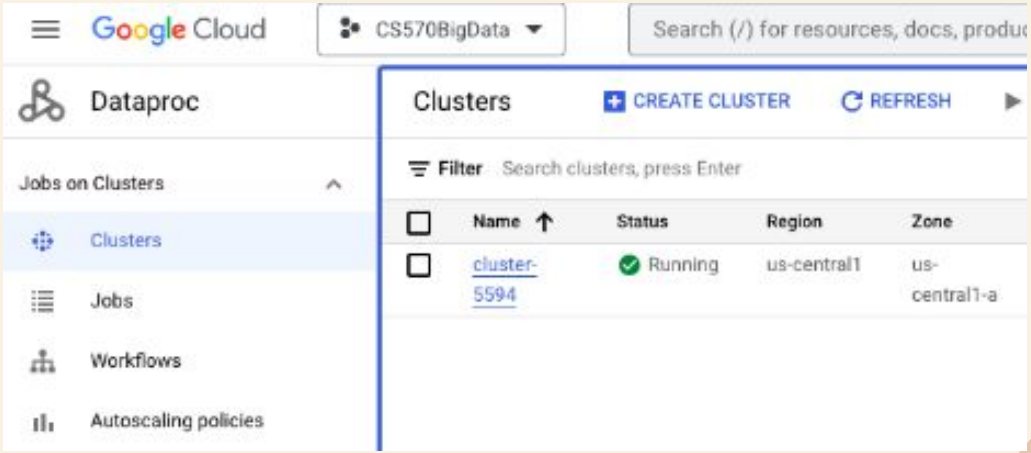
1. Create a bucket on the GCP.
   - Upload the movies.csv, rating.csv, tags.csv files to the above created bucket.
   - Also upload the Downloaded .py file (recommendation_movielens1.py) to the bucket.



Implementation

2. Now create a dataproc cluster.

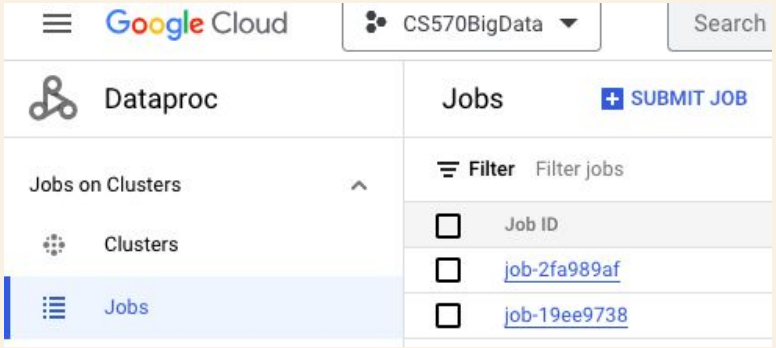
- In the Navigation menu, click on "Dataproc".
- Click on the "Create cluster" button to create a new cluster.
- Give the necessary details such as Cluster name, Region, Zone and Cluster type.
- Create cluster.
- The cluster is now created and running.



Implementation

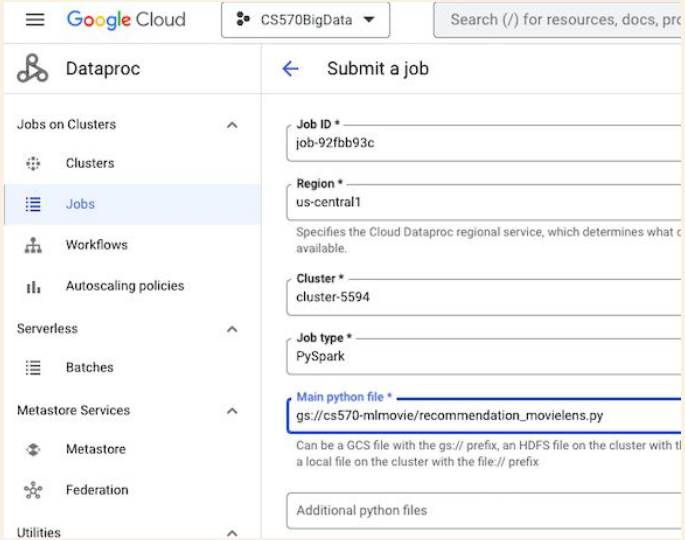
3. Now submit the job through the dataproc Jobs.

- In the Navigation menu, click on "Dataproc".
- Click on the "Jobs" and then on "submit job" tab to create a new Job.



- Fill out all the required details like Job id, Region, Cluster and Job type.
- Also provide the main file path (here it is recommendation_movielens1.py from the bucket above - copy its path and paste it).

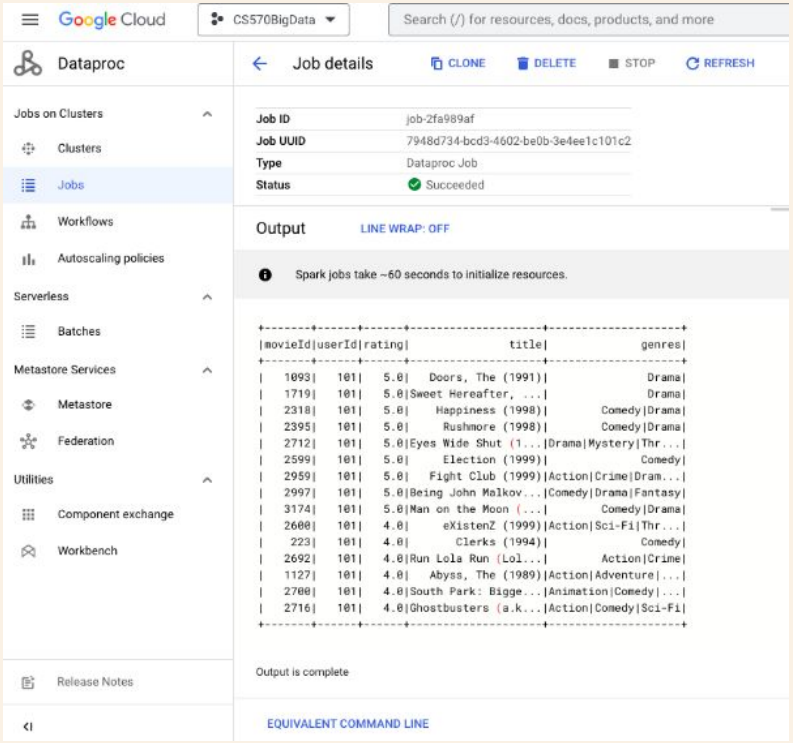
Implementation



- Now click on "submit" button.

Implementation

- And we can see the output displayed.



Thank You!!!