

SWE 307 BIG DATA PROJECT - 4 DESCRIPTION

Extract-Transform-Load (ETL) with Apache-NiFi

Due date: 25.12.2025 Thursday, in class.

In this project study, you are asked to design and create an Extract-Transform-Load (ETL) data path that retrieves various format data from two different locations. The architecture of the system is given in Figure 1. Experimental data will be provided in csv format, you must upload them into database servers running on AWS or Azure virtual instances. Examples will be done in the class.

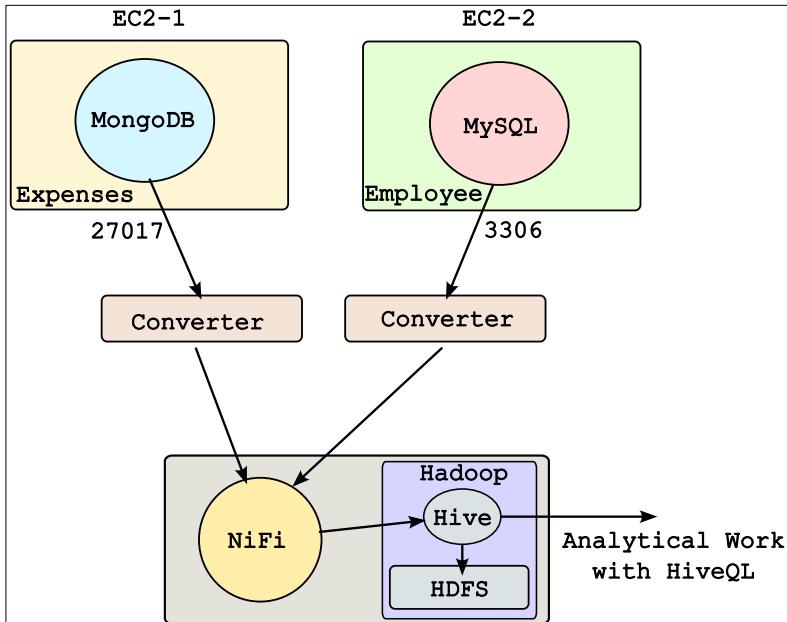


Figure 1. The architectural block diagram of the project 4.

PS:

2) Example image files and csv files will be provided on Github repository, you can clone/download everything provided.

Here you are text data as well:

emp.csv

```

empno,ename,job,mgr,hiredate,sal,comm,deptno,img
7369,SMITH,CLERK,7902,17-DEC-1980,800,,20,smith.jpg
7499,ALLEN,SALESMAN,7698,20-FEB-1981,1600,300,30,allen.jpg
7521,WARD,SALESMAN,7698,22-FEB-1981,1250,500,30,ward.jpg
7566,JONES,MANAGER,7839,2-APR-1981,2975,,20,jones.jpg
7654,MARTIN,SALESMAN,7698,28-SEP-1981,1250,1400,30,martin.jpg
7698,BLAKE,MANAGER,7839,1-MAY-1981,2850,,30,blake.jpg
7782,CLARK,MANAGER,7839,9-JUN-1981,2450,,10,clark.jpg
7788,SCOTT,ANALYST,7566,09-DEC-1982,3000,,20,scott.jpg
7839,KING,PRESIDENT,\000,17-NOV-1981,5000,,10,king.jpg
7844,TURNER,SALESMAN,7698,8-SEP-1981,1500,0,30,turner.jpg
7876,ADAMS,CLERK,7788,12-JAN-1983,1100,,20,adams.jpg
7900,JAMES,CLERK,7698,3-DEC-1981,950,,30,james.jpg
7902,FORD,ANALYST,7566,3-DEC-1981,3000,,20,ford.jpg
7934,MILLER,CLERK,7782,23-JAN-1982,1300,,10,miller.jpg
  
```

dept.csv

```

deptno,dname,loc
10,ACCOUNTING,NEW YORK
20,RESEARCH,DALLAS
30,SALES,CHICAGO
40,OPERATIONS,BOSTON
  
```