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URL Github: <a href="https://github.com/Maestro1334/Hadoop">https://github.com/Maestro1334/Hadoop</a>

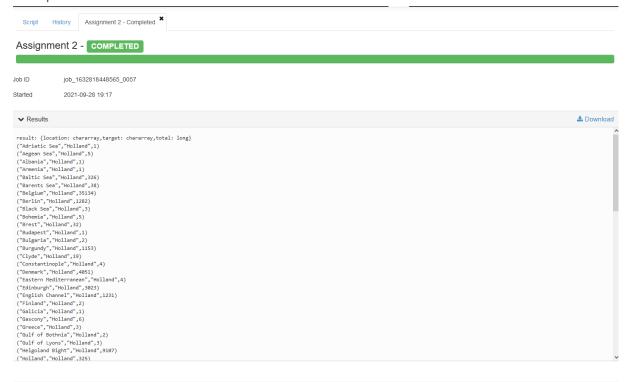
# PDP Assignment 2

Grade	Description	Example result
6	<ul> <li>Make a alphabetic list from all locations from the orders.csv.</li> <li>Group by "location" with target "Holland"</li> <li>Count how many times Holland was the target from that location</li> <li>Code is executed from Pig View</li> <li>Upload a document on Moodle with the following information:         <ul> <li>Name and student number</li> <li>URL from GitHub with your source code</li> <li>Explain in the document what steps have to be taken to execute the code</li> <li>Explain always in your own words every step included source code.</li> <li>Make a screenshot from the result and include it in your document</li> </ul> </li> </ul>	Adriatic Sea , Holland, 6 Albania, Holland, 5 etc
7	Make a list how many times every country won	(T,6000) (R,5000) Etc
8	Make a list from the top 10 countries that had the most turns and won the game.  Names had to be the full name and not the index.	(Russia, 600) (France, 500) Etc
9	Write UDF with Python that take care replacing "I" with "Italy" etc. explain the code in your win words.	(Russia, 600) (France, 500) Etc
10	Analyze, what is strange when reading the rules from the original boardgame <a href="https://media.wizards.com/2015/downloads/ah/diplomacv_rules.pdf">https://media.wizards.com/2015/downloads/ah/diplomacv_rules.pdf</a> and comparing the rules with the data? Explain your findings.	

#### Steps

- 1. Have Hadoop configured and up and running according to slides of lesson 3
- 2. In Hadoop Files view, upload the required CSVs: Moodle -> diplomacy dataset: Players.csv & orders.csv
- 3. In Pig view, create new script & paste script provided in files into the field OR upload script
- 4. Execute / Run script

#### Output



```
        CRusania", "Holland", 2)

        ("Serbia", "Holland", 4)

        ("Silesia", "Holland", 16)

        ("Silegerack", "Holland", 136)

        ("Spain", "Holland", 1)

        ("Spain", "Holland", 1)

        ("Sp. Petersburg, (Horth Coast)", "Holland", 10)

        ("St. Petersburg, "Holland", 23)

        ("Yyrola," "Holland", 23)

        ("Yyrola," "Holland", 2)

        ("Yyrola," "Holland", 2)

        ("Yele," "Holland", 2)

        ("Vales," "Holland", 2)

        ("Yales," "Holland", 2)

        ("Yales," "Holland", 2)

        ("Yales," "Holland", 2)

        ("Yales," "Holland", 2)

        ("Ta, 345)

        ("Ta, 346)

        ("Ta, 386)

        ("Ta, 281)
```

## Script part 1

### # Load orders data

```
ordersCSV = LOAD '/user/maria_dev/diplomacy/orders.csv' USING PigStorage(',')AS
        (game_id:chararray,
  unit_id:chararray,
  unit_order:chararray,
  location:chararray,
  target:chararray,
  target_dest:chararray,
  success:chararray,
  reason:chararray,
  turn_num:chararray);
# Filter data on target: Holland
filtered_data = FILTER ordersCSV BY (target == ""Holland"");
# Group by location (country)
group_by_location = GROUP filtered_data BY location;
# Count the number of records for move with "Holland" as target
count_specified_location = FOREACH group_by_location GENERATE group as location, "Holland" as
target, COUNT($1) as total;
# Order the results alphabetically by Location
result = ORDER count_specified_location BY location;
# Descibe the schema and DUMP the results
describe result;
DUMP result;
```

## Script part 2

#### # Load players data

```
playersCSV = LOAD '/user/maria_dev/diplomacy/players.csv' USING PigStorage(',')AS
       (game_id:chararray,
  country:chararray,
  won:chararray,
  num_supply_centers:chararray,
  eliminated:chararray,
  start_turn:chararray,
  end_turn:chararray);
# Filter players by value "1" in won, meaning all lost games/players are filtered out
filtered_players = FILTER playersCSV BY (won == ""1"");
# Group data by country
group_by_country = GROUP filtered_players BY country;
# Count the number of won games for each country
count_wins = FOREACH group_by_country GENERATE group as country, COUNT($1) as wins;
# Order results by number of wins descending
ordered_result = ORDER count_wins BY wins DESC;
# Descibe the schema and DUMP the results
describe ordered_result;
DUMP ordered_result;
```