

Assignment 2.6

Dataset: <https://drive.google.com/open?id=0ByJLBTmJojjzZTJQM2UzN2J6aUU>

Load Data:

```
Load_Data = LOAD '/home/acadgild/Pokemon.csv' USING PigStorage(',')
AS(Sno:int,Name:chararray,Type1:chararray,Type2:chararray,Total:int,HP:int,Attack:int,Defense:int,
SpAtk:int,SpDef:int,Speed:int);
```

```
grunt> Load_Data = LOAD '/home/acadgild/Pokemon.csv' USING PigStorage(',') AS(Sno:int,Name:chararray,Type1:chararray,
Type2:chararray,Total:int,HP:int,Attack:int,Defense:int,SpAtk:int,SpDef:int,Speed:int);
2018-05-19 20:34:01,020 [main] INFO org.apache.hadoop.conf.Configuration.deprecation - io.bytes.per.checksum is depr
ecated. Instead, use dfs.bytes-per-checksum
2018-05-19 20:34:01,020 [main] INFO org.apache.hadoop.conf.Configuration.deprecation - fs.default.name is deprecated
. Instead, use fs.defaultFS
grunt>
```

1. Find the list of players that have been selected in the qualifying round (DEFENCE>55).

```
selected_list = FILTER Load_Data BY Defense>55;
```

```
dump selected_list;
```

```
grunt> selected_list = FILTER Load_Data BY Defense>55;
grunt> dump selected_list;
```

```
(1,Bulbasaur,Grass,Poison,318,45,49,49,65,65,45)
(2,Ivysaur,Grass,Poison,405,60,62,63,80,80,60)
(3,Venusaur,Grass,Poison,525,80,82,83,100,100,80)
(3,VenusaurMega Venusaur,Grass,Poison,625,80,100,123,122,120,80)
(4,Charmander,Fire,,309,39,52,43,60,50,65)
(5,Charmeleon,Fire,,405,58,64,58,80,65,80)
(6,Charizard,Fire,Flying,534,78,84,78,109,85,100)
(6,CharizardMega Charizard X,Fire,Dragon,634,78,130,111,130,85,100)
(6,CharizardMega Charizard Y,Fire,Flying,634,78,104,78,159,115,100)
(7,Squirtle,Water,,314,44,48,65,50,64,43)
(8,Wartortle,Water,,405,59,63,80,65,80,58)
(9,Blastoise,Water,,530,79,83,100,85,105,78)
(9,BlastoiseMega Blastoise,Water,,630,79,103,120,135,115,78)
(10,Caterpie,Bug,,195,45,30,35,20,20,45)
(11,Metapod,Bug,,205,50,20,55,25,25,30)
(12,Butterfree,Bug,Flying,395,60,45,50,90,80,70)
(13,Weedle,Bug,Poison,195,40,35,30,20,20,50)
(14,Kakuna,Bug,Poison,205,45,25,50,25,25,35)
(15,Beedrill,Bug,Poison,395,65,90,40,45,80,75)
(15,BeedrillMega Beedrill,Bug,Poison,495,65,150,40,15,80,145)
(16,Pidgey,Normal,Flying,251,40,45,40,35,35,56)
(17,Pidgeotto,Normal,Flying,349,63,60,55,50,50,71)
(18,Pidgeot,Normal,Flying,479,83,80,75,70,70,101)
(18,PidgeotMega Pidgeot,Normal,Flying,579,83,80,80,135,80,121)
(19,Rattata,Normal,,253,30,56,35,25,35,72)
```

2. State the number of players taking part in the competition after getting selected in the qualifying round.

```
group_selected_list = Group selected_list All;
```

```
count_selected_list = foreach group_selected_list GENERATE COUNT(selected_list);
```

```
dump count_selected_list;
```

```
grunt> group_selected_list = Group selected_list All;  
grunt> count_selected_list = foreach group_selected_list GENERATE COUNT(selected_list);
```

```
(544)
```

3. Using random() generate random numbers for each Pokémon on the selected list.

```
random_include1 = foreach selected_list GENERATE
```

```
RANDOM(),Name,Type1,Type2,Total,HP,Attack,Defense,SpAtk,SpDef,Speed;
```

```
dump random_include1;
```

```
grunt> random_include1 = foreach selected_list GENERATE RANDOM(),Name,Type1,Type2,Total,HP,Attack,Defense,SpAtk,SpDef  
,Speed;  
grunt> dump random_include1;_
```

```
(0.8381930700894553,Ivysaur,Grass,Poison,405,60,62,63,80,80,60)  
(0.6590537072294554,Venusaur,Grass,Poison,525,80,82,83,100,100,80)  
(0.8967354228267379,VenusaurMega Venusaur,Grass,Poison,625,80,100,123,122,120,80)  
(0.3663937488207234,Charmeleon,Fire,,405,58,64,58,80,65,80)  
(0.41267742476194014,Charizard,Fire,Flying,534,78,84,78,109,85,100)  
(0.9372122814365798,CharizardMega Charizard X,Fire,Dragon,634,78,130,111,130,85,100)  
(0.9428974970978756,CharizardMega Charizard Y,Fire,Flying,634,78,104,78,159,115,100)  
(0.24947098905107445,Squirtle,Water,,314,44,48,65,50,64,43)  
(0.39490096422501364,Wartortle,Water,,405,59,63,80,65,80,58)  
(0.6223737880223866,Blastoise,Water,,530,79,83,100,85,105,78)  
(0.91460615589117,BlastoiseMega Blastoise,Water,,630,79,103,120,135,115,78)  
(0.8734737736788621,Pidgeot,Normal,Flying,479,83,80,75,70,70,101)  
(0.35581275717564953,PidgeotMega Pidgeot,Normal,Flying,579,83,80,80,135,80,121)  
(0.7781233120298946,Raticate,Normal,,413,55,81,60,50,70,97)  
(0.9628063191653604,Fearow,Normal,Flying,442,65,90,65,61,61,100)  
(0.25551779063010027,Arbok,Poison,,438,60,85,69,65,79,80)  
(0.8935740737304612,Sandshrew,Ground,,300,50,75,85,20,30,40)  
(0.0022698602945626645,Sandslash,Ground,,450,75,100,110,45,55,65)  
(0.38077306057463467,Nidorina,Poison,,365,70,62,67,55,55,56)
```

4. Arrange the new list in a descending order according to a column randomly.

```
random1_desending = ORDER random_include1 BY $0 DESC;
```

```
dump random1_desending;
```

```
grunt> random1_desending = ORDER random_include1 BY $0 DESC;  
grunt> dump random1_desending;
```

```
(0.9992638056544798,Arcanine,Fire,,555,90,110,80,100,80,95)  
(0.9970366380691712,Groudon,Ground,,670,100,150,140,100,90,90)  
(0.9931083021175277,Swampert,Water,Ground,535,100,110,90,85,90,60)  
(0.9923974033161437,Hydreigon,Dark,Dragon,600,92,105,90,125,90,98)  
(0.9905089727509037,Seaking,Water,,450,80,92,65,65,80,68)  
(0.9903596888531632,Weezing,Poison,,490,65,90,120,85,70,60)  
(0.9871988533034273,Celebi,Psychic,Grass,600,100,100,100,100,100)  
(0.9858102975405871,Goodra,Dragon,,600,90,100,70,110,150,80)  
(0.9847463108836888,ShayminLand Forme,Grass,,600,100,100,100,100,100,100)  
(0.9833377997507898,Shroomish,Grass,,295,60,40,60,40,60,35)  
(0.9830825946281277,Roserade,Grass,Poison,515,60,70,65,125,105,90)  
(0.981463477094627,Ivysaur,Grass,Poison,405,60,62,63,80,80,60)  
(0.9799218853550283,CameruptMega Camerupt,Fire,Ground,560,70,120,100,145,105,20)  
(0.9763165436805313,Dedenne,Electric,Fairy,431,67,58,57,81,67,101)  
(0.9757659632825627,Huntail,Water,,485,55,104,105,94,75,52)  
(0.9743803327011825,GarchompMega Garchomp,Dragon,Ground,700,108,170,115,120,95,92)  
(0.9717622466491164,Exeggutor,Grass,Psychic,520,95,95,85,125,65,55)  
(0.9715955904356773,Marshtomp,Water,Ground,405,70,85,70,60,70,50)  
(0.9674403029271352,PumpkabooAverage Size,Ghost,Grass,335,49,66,70,44,55,51)  
(0.9666440373288885,Combusken,Fire,Fighting,405,60,85,60,85,60,55)
```

5. Now on a new relation again associate random numbers for each Pokémon and arrange in descending order according to column random.

```
random_include2 = foreach selected_list GENERATE
```

```
RANDOM(),Name,Type1,Type2,Total,HP,Attack,Defense,SpAtk,SpDef,Speed;
```

```
random2_desending = ORDER random_include2 BY $0 DESC;
```

```
grunt> random_include2 = foreach selected_list GENERATE RANDOM(),Name,Type1,Type2,Total,HP,Attack,Defense,SpAtk,SpDef,Speed;  
grunt> random2_desending = ORDER random_include2 BY $0 DESC;  
grunt> dump_
```

```
(0.9993398131170836,Archeops,Rock,Flying,567,75,140,65,112,65,110)
(0.9961805451428786,ManectricMega Manectric,Electric,,575,70,75,80,135,80,135)
(0.9960579806666187,Fearow,Normal,Flying,442,65,90,65,61,61,100)
(0.9957166298308424,Ambipom,Normal,,482,75,100,66,60,66,115)
(0.9935704558496437,Dragalge,Poison,Dragon,494,65,75,90,97,123,44)
(0.9914391429089352,Flareon,Fire,,525,65,130,60,95,110,65)
(0.9910043546352518,Swirlix,Fairy,,341,62,48,66,59,57,49)
(0.9880572315542544,Magnemite,Electric,Steel,325,25,35,70,95,55,45)
(0.9869561221566059,Beldum,Steel,Psychic,300,40,55,80,35,60,30)
(0.9867685415726021,Skuntank,Poison,Dark,479,103,93,67,71,61,84)
(0.9861597027541061,Cubone,Ground,,320,50,50,95,40,50,35)
(0.986120318994318,Scyther,Bug,Flying,500,70,110,80,55,80,105)
(0.9859848308110032,Lileep,Rock,Grass,355,66,41,77,61,87,23)
(0.9856565599429122,Reuniclus,Psychic,,490,110,65,75,125,85,30)
(0.9847623449226947,Simipour,Water,,498,75,98,63,98,63,101)
(0.9845842649815193,Ivysaur,Grass,Poison,405,60,62,63,80,80,60)
(0.9809890902046473,Gliscor,Ground,Flying,510,75,95,125,45,75,95)
(0.9767726717848699,Donphan,Ground,,500,90,120,120,60,60,50)
(0.9748401230987046,Hippowdon,Ground,,525,108,112,118,68,72,47)
(0.97455926475225,Feraligatr,Water,,530,85,105,100,79,83,78)
```

6. From the two different descending lists of random Pokémons, select the top 5 Pokémons for 2 different players.

```
limit_data_random1_desending = LIMIT random1_desending 5 ;
```

```
dump limit_data_random1_desending;
```

```
grunt> limit_data_random1_desending = LIMIT random1_desending 5 ;
grunt> dump limit_data_random1_desending;_
```

```
(0.9996172729247309,Starmie,Water,Psychic,520,60,75,85,100,85,115)
(0.998305923770768,GyaradosMega Gyarados,Water,Dark,640,95,155,109,70,130,81)
(0.9929876571065148,Porygon,Normal,,395,65,60,70,85,75,40)
(0.9921252067534061,Regirock,Rock,,580,80,100,200,50,100,50)
(0.9917971877638295,Ferroseed,Grass,Steel,305,44,50,91,24,86,10)
grunt>
```

```
limit_data_random2_desending = LIMIT random2_desending 5 ;
```

```
dump limit_data_random2_desending;
```

```
grunt> limit_data_random2_desending = LIMIT random2_desending 5 ;
grunt> dump limit_data_random2_desending;_
```

```
(0.9988182126514978,Servine,Grass,,413,60,60,75,60,75,83)
(0.9970368279727915,Carracosta,Water,Rock,495,74,108,133,83,65,32)
(0.9960248619286591,Mewtwo,Psychic,,680,106,110,90,154,90,130)
(0.9940404017101679,Grumpig,Psychic,,470,80,45,65,90,110,80)
(0.9932927249277753,Whiscash,Water,Ground,468,110,78,73,76,71,60)
```

7. Store the data on a local drive to announce for the final match. By the name player1 and player2 (only show the NAME and HP).

```
filter_only_name1 = foreach limit_data_random1_desending Generate ($1,HP);
```

```
dump;
```

```
grunt> filter_only_name1 = foreach limit_data_random1_desending Generate ($1,HP);  
grunt> dump;
```

```
((Corphish,43))  
((Regice,80))  
((Mesprit,80))  
((Rampardos,97))  
((Articuno,90))
```

```
filter_only_name2 = foreach limit_data_random2_desending Generate ($1,HP);
```

```
dump;
```

```
grunt> filter_only_name2 = foreach limit_data_random2_desending Generate ($1,HP);  
grunt> dump;
```

```
((AegislashShield Forme,60))  
((Golbat,75))  
((Registeel,80))  
((Mawile,50))  
((Heatran,91))  
grunt>
```

```
STORE limit_data_random1_desending INTO '/home/acadgild/player1.txt';
```

```
STORE limit_data_random2_desending INTO '/home/acadgild/player2.txt';
```

```
grunt> STORE limit_data_random1_desending INTO '/home/acadgild/player1.txt';
```

```
grunt> STORE limit_data_random2_desending INTO '/home/acadgild/player2.txt';
```