Case Study:

We have sales data with the coloumns Region,Country,Item Type,Sales Channel,Order Priority,Order Date,Order ID,
Ship Date,Units Sold,Unit Price,Unit Cost,Total Revenue,Total Cost,Total Profit.
In these dataset we have the sales data throughout the world with the regions,countries and items with order id,
order date,ship date,number of units sold in the particular day,unit price ,cost and the profit.
We have to analyse these data with the following queries.

Sample sales data:

Region,Country,Item Type,Sales Channel,Order Priority,Order Date,Order ID,Ship Date,Units Sold,Unit Price,Unit Cost,Total Revenue,Total Cost,Total Profit
Central America and the Caribbean,Antigua and Barbuda ,Baby Food,Online,M,12/20/2013,957081544,1/11/2014,552,255.28,159.42,140914.56,87999.84,52914.72
Central America and the Caribbean,Panama,Snacks,Offline,C,7/5/2010,301644504,7/26/2010,2167,152.58,97.44,330640.86,211152.48,119488.38
Europe,Czech Republic,Beverages,Offline,C,9/12/2011,478051030,9/29/2011,4778,47.45,31.79,226716.10,151892.62,74823.48
Asia,North Korea,Cereal,Offline,L,5/13/2010,892599952,6/15/2010,9016,205.70,117.11,1854591.20,1055863.76,798727.44
Asia,Sri Lanka,Snacks,Offline,C,7/20/2015,571902596,7/27/2015,7542,152.58,97.44,1150758.36,734892.48,415865.88
Middle East and North Africa,Morocco,Personal Care,Offline,L,11/8/2010,412882792,11/22/2010,48,81.73,56.67,3923.04,2720.16,1202.88
Australia and Oceania,Federated States of Micronesia,Clothes,Offline,H,3/28/2011,932776868,5/10/2011,8258,109.28,35.84,902434.24,295966.72,606467.52
Europe,Bosnia and Herzegovina,Clothes,Online,M,10/14/2013,919133651,11/4/2013,927,109.28,35.84,101302.56,33223.68,68078.88
Middle East and North Africa,Afghanistan,Clothes,Offline,M,8/27/2016,579814469,10/5/2016,8841,109.28,35.84,966144.48,316861.44,649283.04
Sub-Saharan Africa,Ethiopia,Baby Food,Online,M,4/13/2015,192993152,5/7/2015,9817,255.28,159.42,2506083.76,1565026.14,941057.62
Middle East and North Africa,Turkey,Office Supplies,Offline,C,9/25/2013,557156026,10/15/2013,3704,651.21,524.96,2412081.84,1944451.84,467630.00
Middle East and North Africa,Oman,Cosmetics,Online,M,5/12/2013,741101920,5/17/2013,7382,437.20,263.33,3227410.40,1943902.06,1283508.34
Asia,Malaysia,Cereal,Offline,L,7/31/2016,333942162,8/25/2016,9762,205.70,117.11,2008043.40,1143227.82,864815.58
Central America and the Caribbean,Saint Lucia,Cosmetics,Offline,H,7/6/2015,795100581,7/16/2015,6786,437.20,263.33,2966839.20,1786957.38,1179881.82
Central America and the Caribbean,Saint Vincent and the Grenadines,Baby Food,Online,L,11/28/2010,504313504,12/3/2010,6428,255.28,159.42,1640939.84,1024751.76,616188.08

Middle East and North Africa,Lebanon,Meat,Offline,H,12/17/2015,611629760,1/31/2016,3693,421.89,364.69,1558039.77,1346800.17,211239.60
Europe,Austria,Cereal,Offline,C,8/13/2014,987410676,9/6/2014,5616,205.70,117.11,1155211.20,657689.76,497521.44
Europe,Bulgaria,Office Supplies,Online,L,10/31/2010,672330081,11/29/2010,6266,651.21,524.96,4080481.86,3289399.36,791082.50
North America,Mexico,Beverages,Online,C,3/13/2017,127374303,3/20/2017,1742,47.45,31.79,82657.90,55378.18,27279.72
Central America and the Caribbean,Trinidad and Tobago,Baby Food,Offline,C,4/16/2013,783842170,6/1/2013,5172,255.28,159.42,1320308.16,824520.24,495787.92
Middle East and North Africa,Libya,Beverages,Offline,L,1/18/2010,993345010,3/3/2010,1718,47.45,31.79,81519.10,54615.22,26903.88
Middle East and North Africa,Algeria,Baby Food,Offline,M,9/5/2015,977806651,10/14/2015,3572,255.28,159.42,911860.16,569448.24,342411.92
Europe,Estonia,Fruits,Online,L,9/28/2016,579463422,11/1/2016,4958,9.33,6.92,46258.14,34309.36,11948.78
Australia and Oceania,Tuvalu,Beverages,Offline,L,3/22/2012,610864150,4/7/2012,7132,47.45,31.79,338413.40,226726.28,111687.12
Middle East and North Africa,Saudi Arabia,Snacks,Offline,L,4/25/2017,604870164,6/5/2017,3378,152.58,97.44,515415.24,329152.32,186262.92
Central America and the Caribbean,Cuba,Cereal,Online,H,3/13/2014,164655292,5/1/2014,4015,205.70,117.11,825885.50,470196.65,355688.85
Europe,Montenegro,Fruits,Offline,L,5/29/2016,313705861,7/10/2016,1390,9.33,6.92,12968.70,9618.80,3349.90

Query questions
1.Display the number of countries present in the data(Using Hive)
2.Display the number of units sold in each region.(Using Hive)
3.Display the 10 most recent sales.(Using Hive)
4.Display the products with atleast 2 occurences of 'a'.(Using spark)
5.Display country in each region with highest units sold.(Using spark)
6.Display the unit price and unit cost of each item in ascending order.(Using spark)
7.Display the number of sales yearwise.(Using pyspark)
8.Display the number of orders for each item.(Using pyspark)
9.Display the country with highest sale(Using pyspark)