

## Task-18

Name - Jainam Shah

ref ID- DIRSS2131

Q1. Using the same dataset rdd you need to get the data where the country belongs to Nigeria and Latitude value should be more than 7.0 ( here the 7.0 should be only and only float type in filter)

The screenshot shows a Databricks notebook with three code cells. Cell 1 loads the 'airports.text' file. Cell 2 creates an RDD from the file. Cell 3 filters the RDD for Nigeria and latitude > 7.0. The output shows a list of airport records for Nigeria.

```
1 # /FileStore/tables/airports.text
2
3 # second way of creating an rdd ( external dataset)
4 airportRdd = sc.textFile('/FileStore/tables/airports.text')
5
6 # Q1. Using the same dataset rdd you need to get the data where the country belongs to Nigeria and Latitude value should be more than 7.0
7 country_Nigeria = airportRdd.filter(lambda x : x.split(",")[3] == "Nigeria")
8 airportRdd.filter(lambda x : x.split(",")[3] == "Nigeria" and x.split(",")[6]>7.0).collect()
```

Out[11]: ['268','Nnamdi Azikiwe Intl','Abuja','Nigeria','ABV','DNAA',9.096792,7.263172,1123,1,'N','Africa/Lagos',  
'261','Akure','Akure','Nigeria','AKR','DNAK',7.246739,5.381988,1100,1,'N','Africa/Lagos',  
'266','Ibadan','Ibadan','Nigeria','IBA','DNIB',7.362458,3.978333,725,1,'N','Africa/Lagos',  
'267','Ilorin','Ilorin','Nigeria','ILR','DNIL',8.440211,4.493919,1126,1,'N','Africa/Lagos',  
'268','Yakubu Gowon','Jos','Nigeria','JOS','DNJO',9.639828,8.86985,4232,1,'N','Africa/Lagos',  
'272','Makurdi','Makurdi','Nigeria','MDI','DNMK',7.783883,8.613939,371,1,'N','Africa/Lagos',  
'274','Minna New','Minna','Nigeria','MXJ','DNMN',9.652172,6.462256,834,1,'N','Africa/Lagos',  
'277','Yola','Yola','Nigeria','VOL','DNVO',9.257553,12.436422,599,1,'N','Africa/Lagos',  
'7439','Gombe Lawanti International Airport','Gombe','Nigeria','',\N,9.2575,12.439278,509,1,'U','Africa/Lagos']

Q2. Using the same dataset rdd, try to filter the data where country belongs to Germany - Final result only take the airportId, airport Name ( means only 1st & 2nd column)

The screenshot shows a Databricks notebook with four code cells. Cell 1 contains the query for Q2. Cell 2 is empty. Cell 3 filters the RDD for Germany. Cell 4 maps the filtered RDD to extract the airport ID and name. The output shows a list of airport records for Germany.

```
1 # Q2. Using the same dataset rdd, try to filter the data where country belongs to Germany - Final result only take the airportId, airport Name
2
3 country_Germany = airportRdd.filter(lambda x : x.split(",")[3] == "Germany")
4 country_Germany.map(lambda x : (x.split(",")[0],x.split(",")[1])).collect()
```

Out[12]: [('317', 'Bautzen'),  
( '318', 'Altenburg Nobitz'),  
( '319', 'Dessau'),  
( '320', 'Eisenhutenstadt'),  
( '322', 'Grossenhain'),  
( '323', 'Merseburg'),  
( '324', 'Halle Oppin'),  
( '325', 'Riesa Gohlis'),  
( '326', 'Rechlin Larz'),  
( '327', 'Strausberg'),  
( '328', 'Schonhagen'),  
( '329', 'Barth'),  
( '330', 'Jena Schongleina'),  
( '331', 'Kyriz'),  
( '332', 'Magdeburg'),  
( '333', 'Rothenburg Gorlitz'),  
( '334', 'Anklam'),  
( '335', 'Cottbus Drewitz'),  
( '336', 'Kamenz'),  
( '337', 'Schonefeld'),  
( '338', 'Dresden')]

('339', '"Erfurt"'),  
('340', '"Frankfurt Main"'),  
('341', '"Munster Osnabruck"'),  
('342', '"Hamburg"'),  
('343', '"Tempelhof"'),  
('344', '"Koln Bonn"'),  
('345', '"Dusseldorf"'),  
('346', '"Franz Josef Strauss"'),  
('347', '"Nurnberg"'),  
('348', '"Leipzig Halle"'),  
('349', '"Saarbrucken"'),  
('350', '"Stuttgart"'),  
('351', '"Tegel"'),  
('352', '"Hannover"'),  
('353', '"Neuenland"'),  
('354', '"Egelsbach"'),  
('355', '"Frankfurt Hahn"'),  
('356', '"Mannheim City"'),  
('357', '"Allendorf Eder"'),  
('358', '"Worms"'),  
('359', '"Mainz Finthen"').

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('360', '"Eisenach Kindel"'),  
('361', '"Siegerland"'),  
('362', '"Hamburg Finkenwerder"'),  
('363', '"Kiel Holtenau"'),  
('364', '"Lubeck Blankensee"'),  
('365', '"Dahlemer Binz"'),  
('366', '"Meinerzhagen"'),  
('367', '"Arnsberg Menden"'),  
('368', '"Essen Mulheim"'),  
('369', '"Bielefeld"'),  
('370', '"Monchengladbach"'),  
('371', '"Paderborn Lippstadt"'),  
('372', '"Stadtlohn Vreden"'),  
('373', '"Dortmund"'),  
('374', '"Augsburg"'),  
('375', '"Biberach An Der Riss"'),  
('376', '"Eggenfelden"'),  
('377', '"Mindelheim Mattsies"'),  
('378', '"Oberpfaffenhofen"'),  
('379', '"Straubing"'),  
('380', '"Vilshofen"'),

('381', '"Leutkirch Unterzeil"'),  
('382', '"Friedrichshafen"'),  
('383', '"Schwerin Parchim"'),  
('384', '"Stendal Borstel"'),  
('385', '"Aalen Heidenheim Elchingen"'),  
('386', '"Bayreuth"'),  
('387', '"Burg Feuerstein"'),  
('388', '"Hof Plauen"'),  
('389', '"Hassfurt Schweinfurt"'),  
('390', '"Koblenz Winnigen"'),  
('391', '"Trier Fohren"'),  
('392', '"Speyer"'),  
('393', '"Zweibrucken"'),  
('394', '"Donaueschingen Villingen"'),  
('395', '"Freiburg"'),  
('396', '"Mengen Hohentengen"'),  
('397', '"Schwabisch Hall"'),  
('398', '"Finsterwalde Schacksdorf"'),  
('399', '"Braunschweig Wolfsburg"'),  
('400', '"Kassel Calden"'),  
('401', '"Hildesheim"'),

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('402', '"Bremerhaven"'),  
('403', '"Emden"'),  
('404', '"Leer Papenburg"'),  
('405', '"Wilhelmshaven Mariensiel"'),  
('406', '"Borkum"'),  
('407', '"Norderney"'),  
('408', '"Flensburg Schaferhaus"'),  
('409', '"Rendsburg Schachtholm"'),  
('410', '"Westerland Sylt"'),  
('750', '"Spangdahlem Ab"'),  
('751', '"Ramstein Ab"'),  
('752', '"Bamberg Aaf"'),  
('753', '"Giebelstadt Aaf"'),  
('754', '"Buckeburg"'),  
('755', '"Celle"'),  
('756', '"Rheine Bentlage"'),  
('757', '"Fritzlar"'),  
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('759', '"Mendig"'),  
('760', '"Niederstetten"'),  
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('769', '"Geilenkirchen"'),  
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('776', '"Neubrandenburg"'),  
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('782', '"Buchel"'),  
('783', '"Erding"'),  
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('785', '"Holzdorf"'),  
('786', '"Ingolstadt Manching"'),  
('787', '"Lechfeld"'),  
('788', '"Neuburg"'),  
('789', '"Gutersloh"'),  
('6888', '"Dusseldorf Hauptbahnhof"'),  
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('6801', '"Lauf-Lillinghof"'),  
('6831', '"Nastaetten"'),  
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('6798', '"Weser-Wuemme"'),  
('3986', '"Allgau"'),  
('4035', '"Cologne Railway"'),  
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('4165', '"Flugplatz Merzbrueck"'),  
('4166', '"Baden Airpark"'),  
('4198', '"Niederrhein"'),  
('6510', '"Zweibruecken"'),

('4207', '"Sonderlandeplatz Norden-Norddeich"'),  
('4208', '"Verkehrslandeplatz Juist"'),  
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('4329', '"Riem"'),  
('4332', '"Egelsbach"'),  
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('5558', '"Heide-Büsum Airport"'),  
('5557', '"Heringsdorf Airport"'),  
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('7803', '"Mannheim HBF"'),  
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('7858', '"Heidelberg"'),  
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('7917', '"Passau Hbf"'),  
('7918', '"Regensburg-Oberhub Airport"'),  
('7919', '"Regensburg HBF"'),  
('7920', '"Treuchtlingen BF"'),  
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('7997', '"Ingolstadt BF"'),  
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('8455', '"LAKE WANNSEE"'),  
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('8672', '"Offenburg"'),  
('8673', '"Oberwolfach"'),  
('8674', '"Karlsruhe Hbf"'),  
('8675', '"Lichtenwalde"'),  
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('8680', '"Bad Herrenalb"'),  
('8689', '"Segeletz Airport"'),  
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('8750', '"Peenemunde Airfield"'),  
('8765', '"Memmingen Rail Station"'),  
('8766', '"Ulm Railway Station"'),  
('8767', '"Aachen HBF"'),  
('8770', '"Wyk auf Foehr"'),  
('8810', '"Hamburg Hbf"'),  
('8814', '"BLABU"'),  
('8855', '"Neustadt-Glewe"'),  
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('9100', '"Petersdorf"'),  
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('9147', '"Bruck-Nittenau"'),



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,  
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( '9232', '"Neumuenster"' ),  
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( '9385', '"Weimar"' )]
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