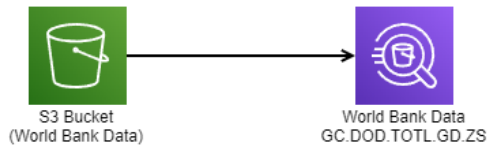


## AWS POC 3 - Query Government Debt Total % GDP using Athena SQL

### Overview



Create an Athena table over the parquet file in the S3 bucket.

### Athena Table

#### SQL

```
1 CREATE EXTERNAL TABLE `world_data_indicators_parquet`(  
2   `1991` decimal COMMENT '',  
3   `1992` decimal COMMENT '',  
4   `1993` decimal COMMENT '',  
5   `1994` decimal COMMENT '',  
6   `1995` decimal COMMENT '',  
7   `1996` decimal COMMENT '',  
8   `1997` decimal COMMENT '',  
9   `1998` decimal COMMENT '',  
10  `1999` decimal COMMENT '',  
11  `2000` decimal COMMENT '',  
12  `2001` decimal COMMENT '',  
13  `2002` decimal COMMENT '',  
14  `2003` decimal COMMENT '',  
15  `2004` decimal COMMENT '',  
16  `2005` decimal COMMENT '',  
17  `2006` decimal COMMENT '',  
18  `2007` decimal COMMENT '',  
19  `2008` decimal COMMENT '',  
20  `2009` decimal COMMENT '',  
21  `2010` decimal COMMENT '',  
22  `2011` decimal COMMENT '',  
23  `2012` decimal COMMENT '',  
24  `2013` decimal COMMENT '',  
25  `2014` decimal COMMENT '',  
26  `2015` decimal COMMENT '',  
27  `2016` decimal COMMENT '',  
28  `2017` decimal COMMENT '',  
29  `2018` decimal COMMENT '',  
30  `2019` decimal COMMENT '',  
31  `2020` decimal COMMENT '',  
32  `2021` decimal COMMENT '',  
33  `2022` decimal COMMENT '',  
34  `country_name` string COMMENT '',  
35  `country_code` string COMMENT '',  
36  `indicator_name` string COMMENT '',
```

```

37 `indicator_code` string COMMENT '')
38 ROW FORMAT SERDE
39 'org.apache.hadoop.hive.ql.io.parquet.serde.ParquetHiveSerDe'
40 STORED AS INPUTFORMAT
41 'org.apache.hadoop.hive.ql.io.parquet.MapredParquetInputFormat'
42 OUTPUTFORMAT
43 'org.apache.hadoop.hive.ql.io.parquet.MapredParquetOutputFormat'
44 LOCATION
45 's3://poc-world-bank-data/GC.DOD.TOTL.GD.ZS/'
46 TBLPROPERTIES (
47 'classification'='parquet')

```

## JSON

```

1 [
2   {
3     "Name": "1991",
4     "Type": "decimal",
5     "Comment": ""
6   },
7   {
8     "Name": "1992",
9     "Type": "decimal",
10    "Comment": ""
11  },
12  {
13    "Name": "1993",
14    "Type": "decimal",
15    "Comment": ""
16  },
17  {
18    "Name": "1994",
19    "Type": "decimal",
20    "Comment": ""
21  },
22  {
23    "Name": "1995",
24    "Type": "decimal",
25    "Comment": ""
26  },
27  {
28    "Name": "1996",
29    "Type": "decimal",
30    "Comment": ""
31  },
32  {
33    "Name": "1997",
34    "Type": "decimal",
35    "Comment": ""
36  },
37  {
38    "Name": "1998",
39    "Type": "decimal",
40    "Comment": ""
41  },
42  {
43    "Name": "1999",
44    "Type": "decimal",
45    "Comment": ""

```

```
46 },
47 {
48     "Name": "2000",
49     "Type": "decimal",
50     "Comment": ""
51 },
52 {
53     "Name": "2001",
54     "Type": "decimal",
55     "Comment": ""
56 },
57 {
58     "Name": "2002",
59     "Type": "decimal",
60     "Comment": ""
61 },
62 {
63     "Name": "2003",
64     "Type": "decimal",
65     "Comment": ""
66 },
67 {
68     "Name": "2004",
69     "Type": "decimal",
70     "Comment": ""
71 },
72 {
73     "Name": "2005",
74     "Type": "decimal",
75     "Comment": ""
76 },
77 {
78     "Name": "2006",
79     "Type": "decimal",
80     "Comment": ""
81 },
82 {
83     "Name": "2007",
84     "Type": "decimal",
85     "Comment": ""
86 },
87 {
88     "Name": "2008",
89     "Type": "decimal",
90     "Comment": ""
91 },
92 {
93     "Name": "2009",
94     "Type": "decimal",
95     "Comment": ""
96 },
97 {
98     "Name": "2010",
99     "Type": "decimal",
100     "Comment": ""
101 },
102 {
103     "Name": "2011",
```

```
104     "Type": "decimal",
105     "Comment": ""
106 },
107 {
108     "Name": "2012",
109     "Type": "decimal",
110     "Comment": ""
111 },
112 {
113     "Name": "2013",
114     "Type": "decimal",
115     "Comment": ""
116 },
117 {
118     "Name": "2014",
119     "Type": "decimal",
120     "Comment": ""
121 },
122 {
123     "Name": "2015",
124     "Type": "decimal",
125     "Comment": ""
126 },
127 {
128     "Name": "2016",
129     "Type": "decimal",
130     "Comment": ""
131 },
132 {
133     "Name": "2017",
134     "Type": "decimal",
135     "Comment": ""
136 },
137 {
138     "Name": "2018",
139     "Type": "decimal",
140     "Comment": ""
141 },
142 {
143     "Name": "2019",
144     "Type": "decimal",
145     "Comment": ""
146 },
147 {
148     "Name": "2020",
149     "Type": "decimal",
150     "Comment": ""
151 },
152 {
153     "Name": "2021",
154     "Type": "decimal",
155     "Comment": ""
156 },
157 {
158     "Name": "2022",
159     "Type": "decimal",
160     "Comment": ""
161 },
```

```

162 {
163     "Name": "country_name",
164     "Type": "string",
165     "Comment": ""
166 },
167 {
168     "Name": "country_code",
169     "Type": "string",
170     "Comment": ""
171 },
172 {
173     "Name": "indicator_name",
174     "Type": "string",
175     "Comment": ""
176 },
177 {
178     "Name": "indicator_code",
179     "Type": "string",
180     "Comment": ""
181 }
182 ]

```

## Query Table

```
1 select * from world_data_indicators_parquet;
```

## Result

2019 ▾	2020 ▾	2021 ▾	2022 ▾	country_name#0 ▾	indicator_name#1 ▾	indicator_code#2 ▾
				Afghanistan	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
				Afghanistan	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
				Africa Eastern and Southern	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
				Africa Eastern and Southern	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
				Africa Western and Central	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
				Africa Western and Central	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
76	84	82		Albania	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS
76	84	82		Albania	Central government debt, total (% of GDP)	GC.DOD.TOTL.GD.ZS