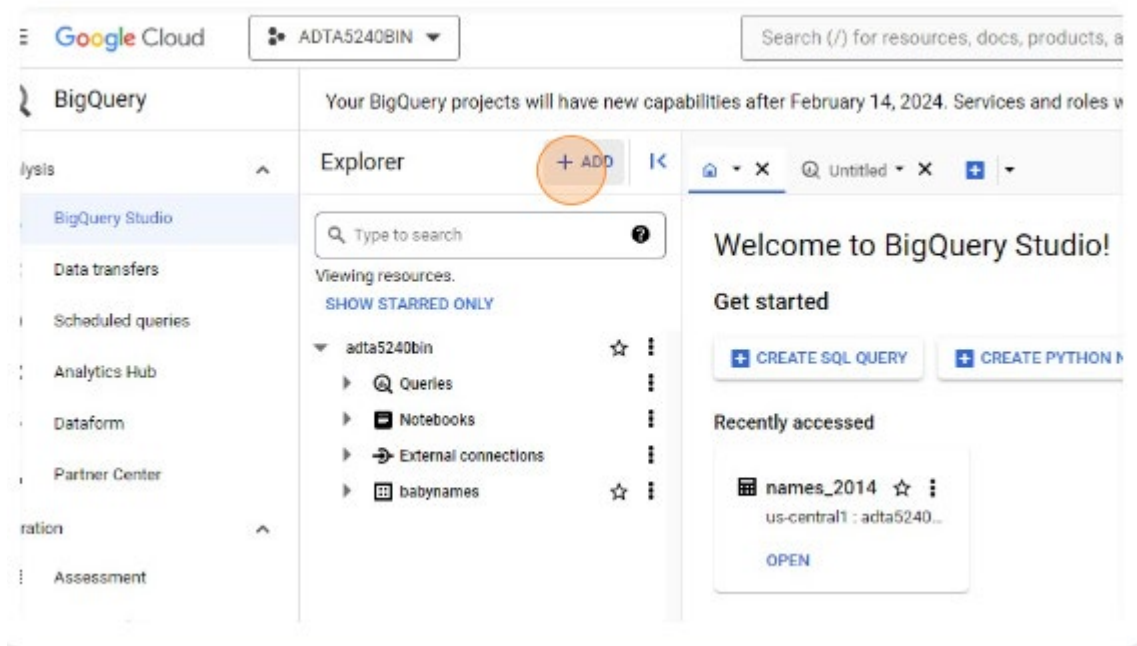


MODULE 6: HOMEWORK 2, ASSIGNMENT: BIGQUERY QUERIES

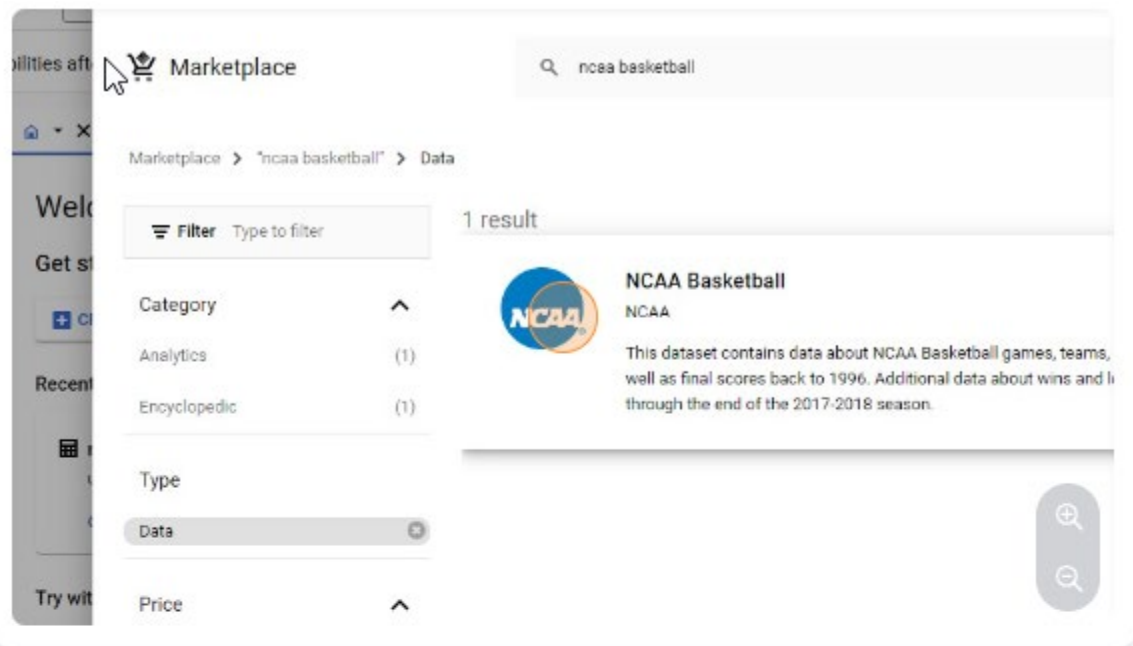
STEP 1: GO TO THE BIGQUERY PAGE IN THE GOOGLE CLOUD CONSOLE

- Open the BigQuery page in the Google Cloud console.
> Go to the Google Cloud console > Look for the BigQuery tab >
- In the Explorer panel, select the project where you want to create the dataset.

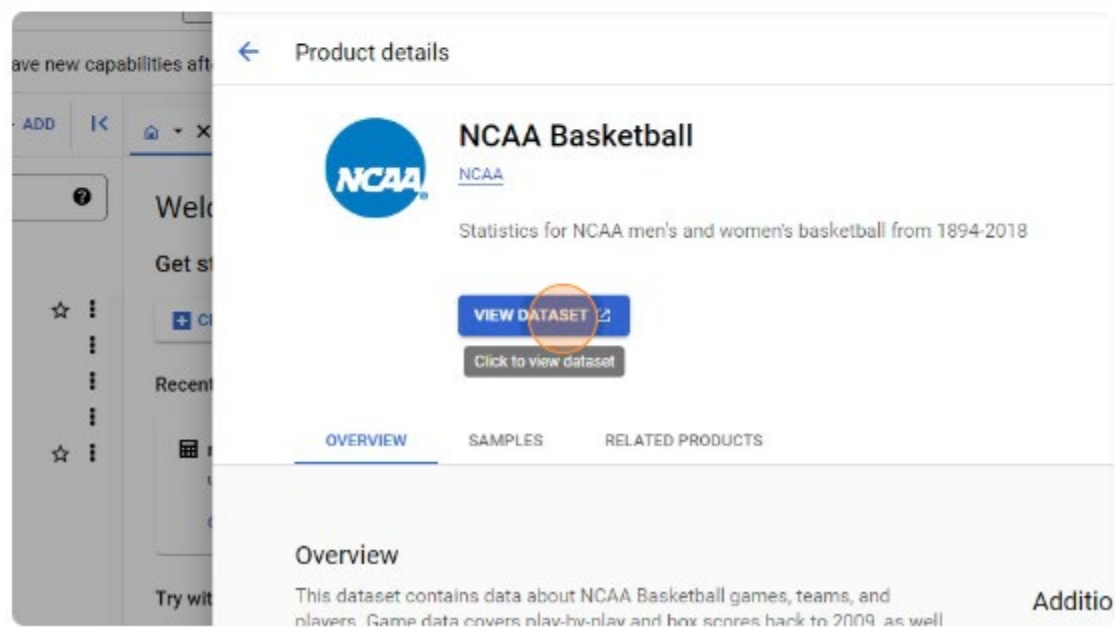


STEP 2: THE NCAA BASKETBALL DATASET

- Select BigQuery Studio from the navigation menu.
- Expand a project name in the Explorer panel to see the datasets in that project.
- Use the search box to search by dataset name.



12 Click "VIEW DATASET"



STEP 3: OPEN THE MBB_PBP_SR DATASET

Explorer

+ ADD

<

Type to search

?

Viewing resources.

SHOW STARRED ONLY

modis_terra_net_primary...

moon_phases

multilingual_spoken_wor...

nasa_wildfire

ncaa_basketball

mascoots

mbb_games_sr

mbb_historical_team...

mbb_historical_team...

mbb_historical_tourn...

mbb_pbp_sr

mbb_players_games...

mbb_teams

mbb_teams_games_sr

team_enlrs

mbb_pbp_sr

QUERY

SHARE

COPY

SNAPSHOT

DELETE

EXPORT

SCHEMA

DETAILS

PREVIEW

LINEAGE

DATA PROFILE

DATA QUALITY

Filter

Enter property name or value

<input type="checkbox"/>	Field name	Type	Mode	Key	Collation	Default Value	Policy Tags
<input type="checkbox"/>	game_id	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	load_timestamp	TIMESTAMP	NULLABLE	-	-	-	-
<input type="checkbox"/>	season	INTEGER	NULLABLE	-	-	-	-
<input type="checkbox"/>	status	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	scheduled_date	TIMESTAMP	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_id	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_name	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_city	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_state	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_address	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_zip	STRING	NULLABLE	-	-	-	-
<input type="checkbox"/>	venue_country	STRING	NULLABLE	-	-	-	-

STEP 4: QUERY THE DATASET

Untitled 2

RUN

SAVE

DOWNLOAD

SHARE

SCHEDULE

MORE

```

1 SELECT
2   game_clock,
3   points_scored,
4   team_name,
5   event_description
6 FROM 'bigquery-public-data.ncaa_basketball.mbb_pbp_sr'
7 WHERE season = 2014
8 AND home_name = 'Wildcats'
9 AND away_name = 'Fighting Irish'
10 AND points_scored IS NOT NULL
11 ORDER BY
12   timestamp DESC
13 LIMIT 10;
14
15

```

Extracts data from an NCAA basketball play-by-play dataset for a specific game played between the Wildcats and the Fighting Irish in the 2014 season. In addition to selecting the game clock, points scored, team name, and event description, it filters out null values.

Query results

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
row	↔	game_clock ▼	points_scored ▼	team_name ▼	event_description ▼	
1		00:06	1.0	Wildcats	Andrew Harrison makes free th...	
2		00:06	1.0	Wildcats	Andrew Harrison makes free th...	
3		1:12	2.0	Wildcats	Karl-Anthony Towns makes tw...	
4		2:34	3.0	Fighting Irish	Jerian Grant makes three point jump shot (Pat Connaughton assists)	
5		3:15	3.0	Wildcats	Aaron Harrison makes three point jump shot (Tyler Ulis assists)	
6		3:45	1.0	Fighting Irish	Pat Connaughton makes free t...	
7		4:08	1.0	Wildcats	Karl-Anthony Towns makes fre...	
8		4:08	2.0	Wildcats	Karl-Anthony Towns makes tw...	
9		4:28	1.0	Fighting Irish	Jerian Grant makes free throw ...	

STEP 5: SQL CODE SO THE QUERY INCLUDES A CUMULATIVE SUM OF SCORES.

In this query, the game clock, running score for both the Wildcats and Fighting Irish, team name, and event description are retrieved from an NCAA basketball play-by-play dataset for a specific game in 2014. And they were using the window function with a cumulative sum to calculate the running score for each team.

```

1 SELECT
2 | game_clock,
3 | SUM(CASE WHEN team_name = 'Wildcats' THEN points_scored END )
4 | OVER(ORDER BY timestamp ROWS BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) AS wildcats_score,
5 | SUM(CASE WHEN team_name = 'Fighting Irish' THEN points_scored END )
6 | OVER(ORDER BY timestamp ROWS BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) AS fighting_irish_score,
7 | team_name,
8 | event_description
9 FROM `bigquery-public-data.ncaa_basketball.mbb_pbp_sr`
10 WHERE
11 | season = 2014
12 | AND home_name = 'Wildcats'
13 | AND away_name = 'Fighting Irish'
14 | AND points_scored IS NOT NULL
15 ORDER BY timestamp DESC
16 LIMIT 10;

```

Query results

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
rw	game_clock ▼	wildcats_score ▼	fighting_irish_score	team_name ▼	event_description ▼	
1	00:06	68.0	66.0	Wildcats	Andrew Harrison makes free th...	
2	00:06	67.0	66.0	Wildcats	Andrew Harrison makes free th...	
3	1:12	66.0	66.0	Wildcats	Karl-Anthony Towns makes tw...	
4	2:34	64.0	66.0	Fighting Irish	Jerian Grant makes three point jump shot (Pat Connaughton assists)	
5	3:15	64.0	63.0	Wildcats	Aaron Harrison makes three point jump shot (Tyler Ullis assists)	
6	3:45	61.0	63.0	Fighting Irish	Pat Connaughton makes free t...	
7	4:08	61.0	62.0	Wildcats	Karl-Anthony Towns makes fre...	
8	4:08	60.0	62.0	Wildcats	Karl-Anthony Towns makes tw...	
9	4:28	58.0	62.0	Fighting Irish	Jerian Grant makes free throw ...	