# A Report on
# Forbes Database


***Allow people to pursue happiness***

# Group 11

Submitted by:

Maniteja Kurukunda-u1429026

R.V.R. Anjani Kumar-u1401754

Sanskriti Bhargava-u1430773

Nitesh Chintawar-u1422961

## Table of Contents:

## 1. Executive Summary:

This report intreprets the  re-implemention of a database that tracks the articles related to various domains and also the rankings of the gobal companies, people and american universities. Here, how the statistics information utilized by Forbes to create a user friendly platform will be addressed and how the company stores the vast data within their databases. In addition to that, the peculiar features related to the database will be discussed.

In the modern world, people are inclined towards digital or virtual platforms rather than physical utilizations. In the case of Forbes, though the company releases prestigious physical magazines, the importance of web-presence and offering the innovative digital user interface to the people, has become an important part of their think-tank. Hence, databases plays a pivotal role in storing vast data from varied domains. This leads to constant updation and storing of historical data which eventually helps to provide user friendly platforms.

In our database, we have simulated the crucial databases related to forbes. Here, we have targetted major features of Forbes.com such as Rankings of Billionaires, Companies, Universities, Athletes, Celebrities, Most Power People and to some extent key articles. Furthermore, we have gathered data from the year 2022 to intrepret the Forbes.com databases.

## 2. Organization/Application Introduction:

### 2.1. Vision, Mission and Values of Forbes:

Vision: "Allow people to pursue happiness".

Mission:

1. Diversity
2. Sustainability
3. Giving Back
4. Global Editorial Commitment
5. Ethical Responsibility

Values: "Forbes' key values are purpose, integrity, innovation, respect and being bold. Our employees, just like the global audiences we serve, know that Forbes is the global champion of free-market enterprise and entrepreneurial capitalism".

### 2.2. Services provided by Forbes:

- Forbes has launched an invite-only platform, which is open to MSMEs and SMEs around the world. It charges a nominal fee to join the esteemed business council. This informative platform helps the entrepreneurs and pioneers, founders connect with like-minded people, interact, collaborate, and even publish posts on Forbes.com.
- Many reputable and upcoming companies across the globe, utilizes the digital platform of Forbes.com to post their articles and advertisements to enhance their growth in the market. Due to the global presence of Forbes, the companies are benefitted by these advertisements.

### 2.3. How transactional Databases are utilized by Forbes:

The database of Forbes utilizes the ID numbers to track the data of the existing companies, people or universities across years. Here, when there is new entrant in the database, the entrant will be issued an ID number, which is permanent and there would not be any scope to alter it in future. This will ensure the database to track the entrant persistently.

## 3. Forbes User Requirements:

Forbes.com is a leading American business prestigious magazine which releases Articles on diversified domains and Rankings that focuses on popular people, companies, universities

Forbes Team and Contributors collects data regarding universities in US, companies in the entire world and Popular people around the globe and also publishes articles in various domains like Innovation, Technology, Leadership, Real Estate, Health, Businesses, Lifestyle.

One writer or contributor can collect data from one or more entity types (Companies, Universities, People etc.). However, one entity type will have only one writer. The same methodology has been implemented for the articles.

Forbes team and contributors are uniquely identified by Forbes staff ID and further contains type of staff.

Articles contains article name, type of article and writer name.

Universities are uniquely identified by rank, and it consists of university type, name, state, average debt, average grant aid, median 10-year salary.

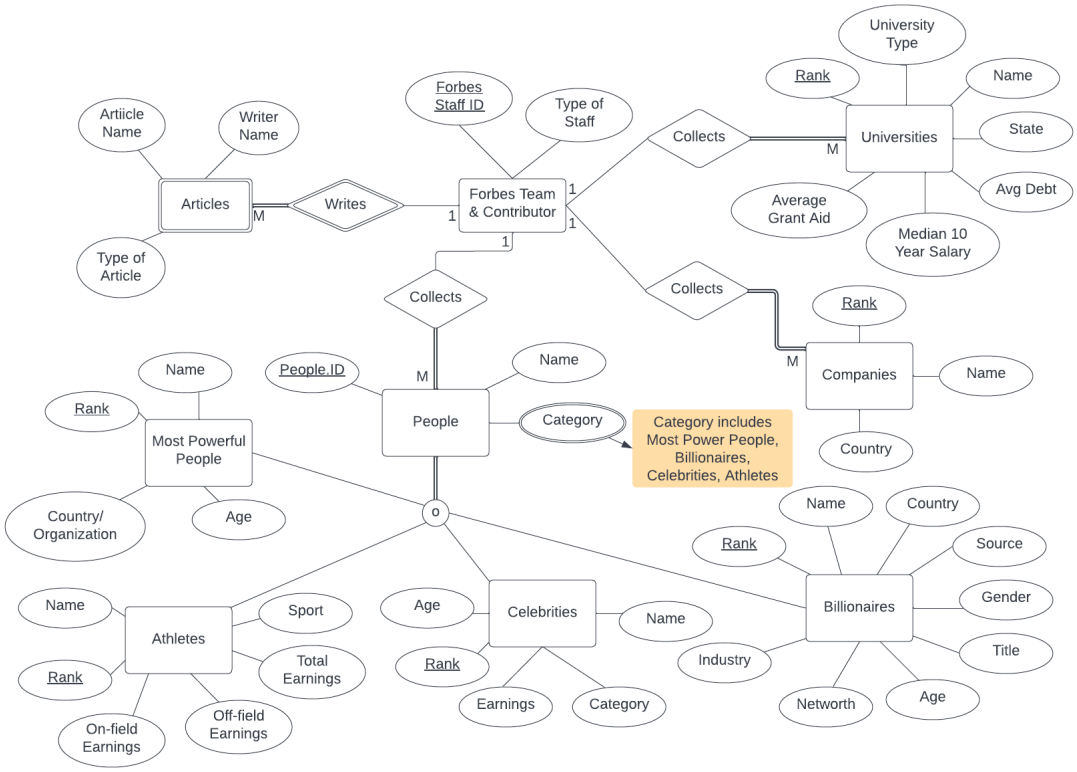
Companies are uniquely identified by rank, and it consists of name, rank, country.

People details are uniquely identified by People ID which is provided by the Forbes ID and people entity type also contains name and category of the people. Category includes Most Power People, Billionaires, Celebrities and Athletes. Here, one person can be listed in one or more categories. The sub-categories of the people category is as follows:

- The World's Billionaires List is uniquely identified by rank and further contains name, networth, age, country, source, industry, gender, title.
- The World's Most Power People is uniquely identified by rank and further contains name, organization or country, age.
- The World's Highest Paid Athletes is uniquely identified by rank and further contains sport, total earnings, on-field earnings, off-field earnings.
- The Celebrity 100 is uniquely identified by rank and further contains name, earnings, category, age.

# 4. Database Design:

## 4.1. Conceptual Model:




The four entity types are Forbes team and contributor, people, universities and companies. Here, their respective identifier attributes are Forbes Staff ID, People ID, University rank and Company rank. Here, Forbes team and contributor are connected exclusively to universities, People and Companies entity types with cardinality constraint as one-to-many.

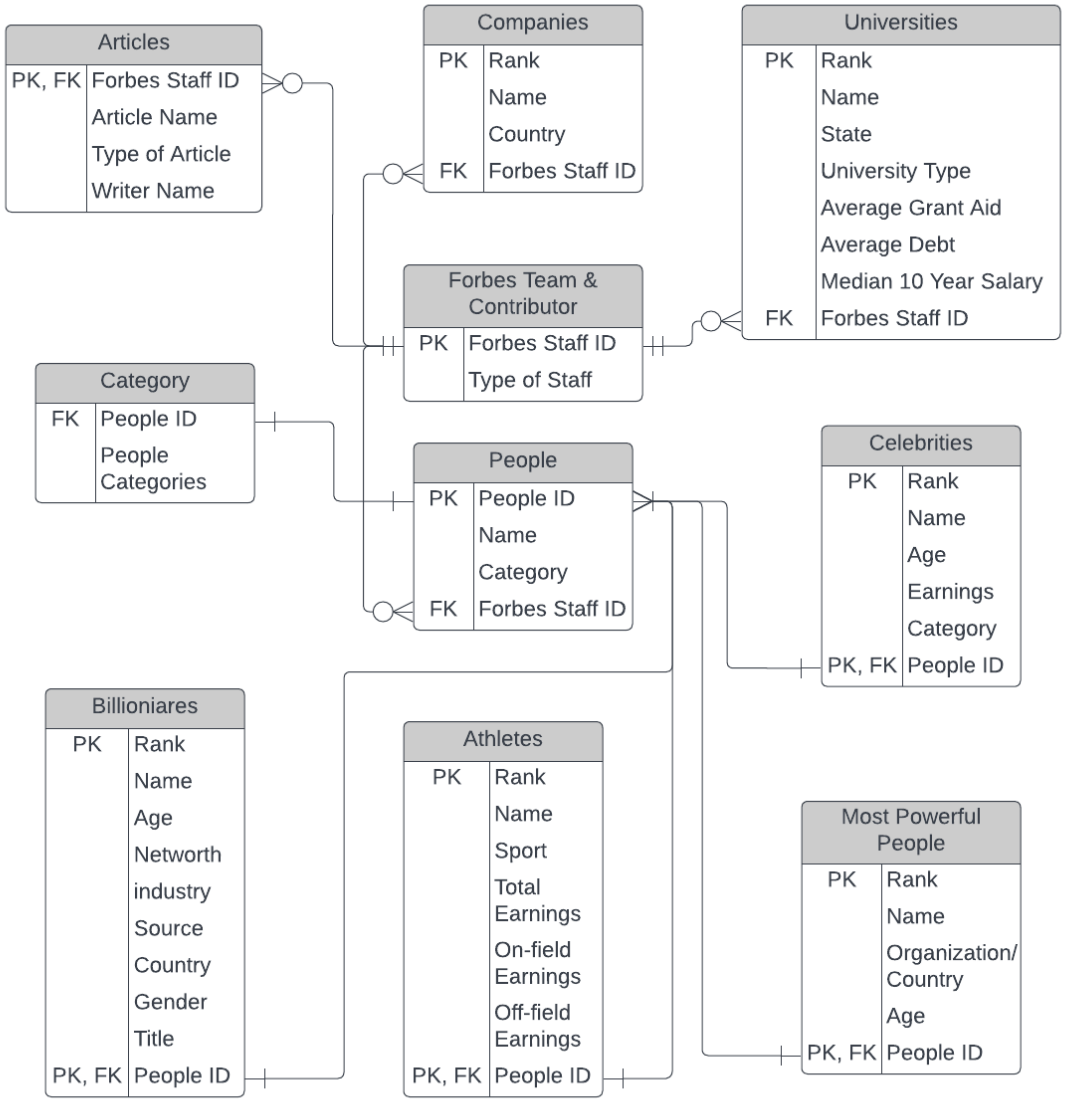
We can depict that, there is one weak entity type which is Articles. The articles are linked to Forbes team and contributor, with cardinality constraint as many-to-one.

We can also observe that, Articles, People, Companies and Universities are having total participation with Forbs team and contributor.

People is a supertype entity which has four sub-type entity types with total specialization, these entity types are Most Power People, Athletes, Celebrities and Billionaires. Here, the connection between supertype and sub-types have overlapping constraint as people could belong to more than one of the above-mentioned sub-types. In addition to that, People has multi-valued attribute called Category. For instance, people can be billionaire or celebrity or both.

The Sub-types (Billionaires, Athletes, Celebrities, Most Power People) have uniquely identified attribute called Rank.

## 4.2. Logical Model:




We can depict from the illustration that, there is a one-to-many relationship between Forbes Team & Contributor to universities, companies, people and articles. Here, there is a primary key in Forbes team & Contributor called Forbes Staff ID, which is foreign key for the universities, companies, people and articles. Articles has Forbes Staff ID as Primary and Foreign Key because it is a weak-entity type which is relating to Forbes team & contributor. Both the Universities and Companies relations have rank as primary key.

Category is a separate relation because it is a multi-valued attribute to people relation, which comprises of People ID as foreign key.

People has a primary key which is People ID. People ID acts as primary and foreign key to its sub-type relations naming, Billionaires, Most Power People, Celebrities and Athletes. Here, these sub-type relations have rank as their primary key.

## 5. Database Implementation:

5.1. Physical Model:

```
--Create statements
CREATE TABLE FORBES_TEAM (
   FORBES_STAFF_ID NUMBER (5) NOT NULL PRIMARY KEY,
   TYPE_OF_STAFF   VARCHAR2 (30) NOT NULL);

CREATE TABLE ARTICLES (
   ARTICLE_NAME    VARCHAR2(100) NOT NULL,
   FORBES_STAFF_ID NUMBER (5) NOT NULL,
   TYPE_OF_ARTICLE VARCHAR2(30) NOT NULL,
   WRITER_NAME     VARCHAR2(40),
   FOREIGN KEY (FORBES_STAFF_ID)
   REFERENCES FORBES_TEAM (FORBES_STAFF_ID));

CREATE TABLE PEOPLE (
   PEOPLE_ID NUMBER (7) NOT NULL PRIMARY KEY,
   FORBES_STAFF_ID NUMBER (5),
   PEOPLE_NAME     VARCHAR2(30),
   PEOPLE_CATEGORY VARCHAR2(25),
   FOREIGN KEY (FORBES_STAFF_ID)
   REFERENCES FORBES_TEAM (FORBES_STAFF_ID));

CREATE TABLE COMPANIES (
   COMPANIES_RANK  NUMBER (5) NOT NULL PRIMARY KEY,
   FORBES_STAFF_ID NUMBER (5) NOT NULL,
   COMPANY_NAME    VARCHAR2(50) NOT NULL,
   COUNTRY VARCHAR2 (20) NOT NULL,
   FOREIGN KEY (FORBES_STAFF_ID)
      REFERENCES FORBES_TEAM (FORBES_STAFF_ID));
```

```
CREATE TABLE US_UNIVERSITIES (
   UNIVERSITY_RANK NUMBER (4) NOT NULL,
   FORBES_STAFF_ID   NUMBER (5) NOT NULL,
   UNIVERSITY_NAME VARCHAR2 (50) NOT NULL,
   STATE_OF_THE_UNIVERSITY CHAR (2) NOT NULL,
   TYPE_OF_THE_UNIVERSITY VARCHAR2(20) NOT NULL,
   AVERAGE_GRANT_AID   VARCHAR2(10) NOT NULL,
   AVERAGE_DEBT    VARCHAR2(10) NOT NULL,
   MEDIAN_10_YR_SALARY    VARCHAR2(10) NOT NULL,
   PRIMARY KEY (UNIVERSITY_RANK),
   FOREIGN KEY (FORBES_STAFF_ID)
      REFERENCES FORBES_TEAM (FORBES_STAFF_ID));

CREATE TABLE BILLIONAIRES (
   RANK_OF_BILIONAIRE NUMBER (4) NOT NULL,
   PEOPLE_ID   NUMBER (7),
   BILLIONAIRE_NAME   VARCHAR2(30) NOT NULL,
   AGE      NUMBER (5),
   NET_WORTH     VARCHAR2(10) NOT NULL,
   INDUSTRY         VARCHAR2(25) NOT NULL,
   SOURCE           VARCHAR2(40) NOT NULL,
   COUNTRY          VARCHAR2(25),
   GENDER     CHAR (1),
   TITLE            VARCHAR2(20),
   PRIMARY KEY (RANK_OF_BILIONAIRE),
   FOREIGN KEY (PEOPLE_ID)
   REFERENCES PEOPLE (PEOPLE_ID));

CREATE TABLE MOST_POWERFUL_PEOPLE (
   RANK_OF_MOST_POWERFUL_PEOPLE NUMBER (4) NOT NULL,
```

```
  PEOPLE_ID   NUMBER (7) NOT NULL,
  NAME          VARCHAR2(50) NOT NULL,
  ORGANIZATION      VARCHAR2(50),
  AGE           NUMBER (5),
  PRIMARY KEY (RANK_OF_MOST_POWERFUL_PEOPLE),
  FOREIGN KEY (PEOPLE_ID)
  REFERENCES PEOPLE (PEOPLE_ID));

CREATE TABLE HIGHEST_PAID_ATHELETES (
  RANK_OF_ATHELETES     NUMBER (4) NOT NULL,
  PEOPLE_ID           NUMBER (7) NOT NULL,
  ATHELETE_NAME       VARCHAR2(30) NOT NULL,
  SPORT             VARCHAR2(25) NOT NULL,
  TOTAL_EARNINGS      VARCHAR2(10) NOT NULL,
  ON_THE_FIELD_EARNINGS  VARCHAR2(10) NOT NULL,
  OFF_THE_FIELD_EARNINGS VARCHAR2(10) NOT NULL,
  PRIMARY KEY ( RANK_OF_ATHELETES ),
  FOREIGN KEY ( PEOPLE_ID )
  REFERENCES PEOPLE ( PEOPLE_ID ));

CREATE TABLE CELEBRITY_100 (
  RANK_OF_CELEBRITIES NUMBER(4) NOT NULL,
  PEOPLE_ID         NUMBER(7) NOT NULL,
  CELEBRITY_NAME     VARCHAR2(50) NOT NULL,
  AGE           NUMBER(2),
  EARNINGS          VARCHAR(10),
  CATEGORY          VARCHAR2(50),
  PRIMARY KEY ( RANK_OF_CELEBRITIES ),
  FOREIGN KEY ( PEOPLE_ID )
  REFERENCES PEOPLE ( PEOPLE_ID ));
```

--We have used CSV Files data to insert into tables using data load option in oracle cloud.

--Select statements

SELECT * FROM FORBES_TEAM;

SELECT * FROM PEOPLE;

SELECT * FROM ARTICLES;

SELECT * FROM US_UNIVERSITIES;

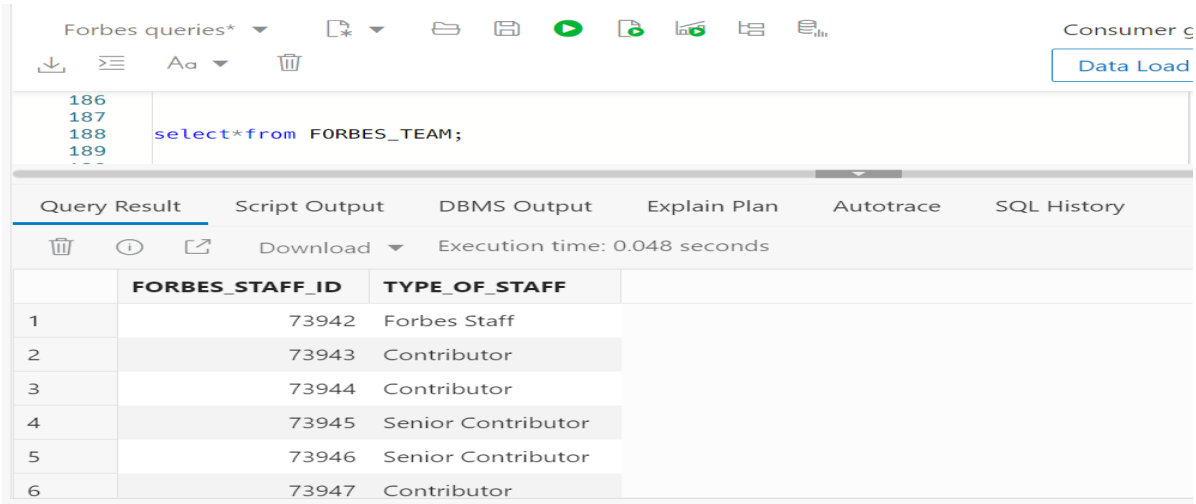
SELECT * FROM COMPANIES;

SELECT * FROM BILLIONAIRES;

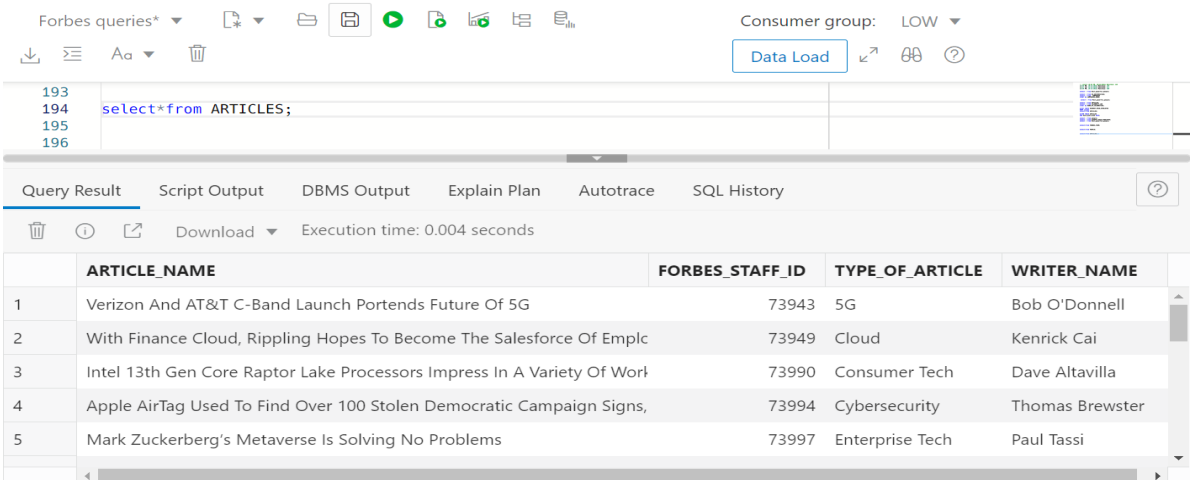
SELECT * FROM MOST_POWERFUL_PEOPLE;

SELECT * FROM HIGHEST_PAID_ATHELETES;

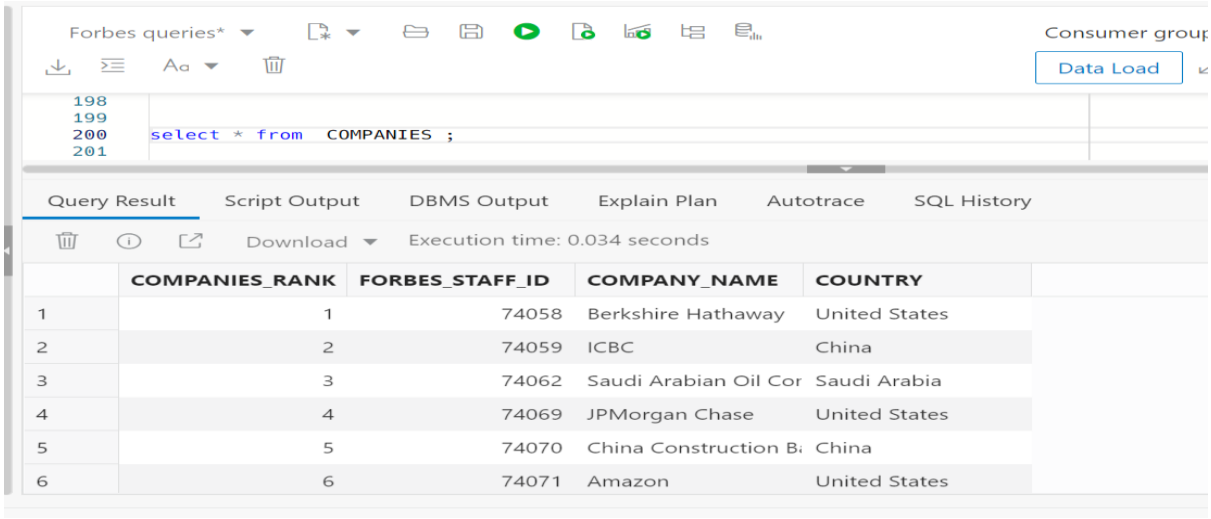
SELECT * FROM CELEBRITY_100;



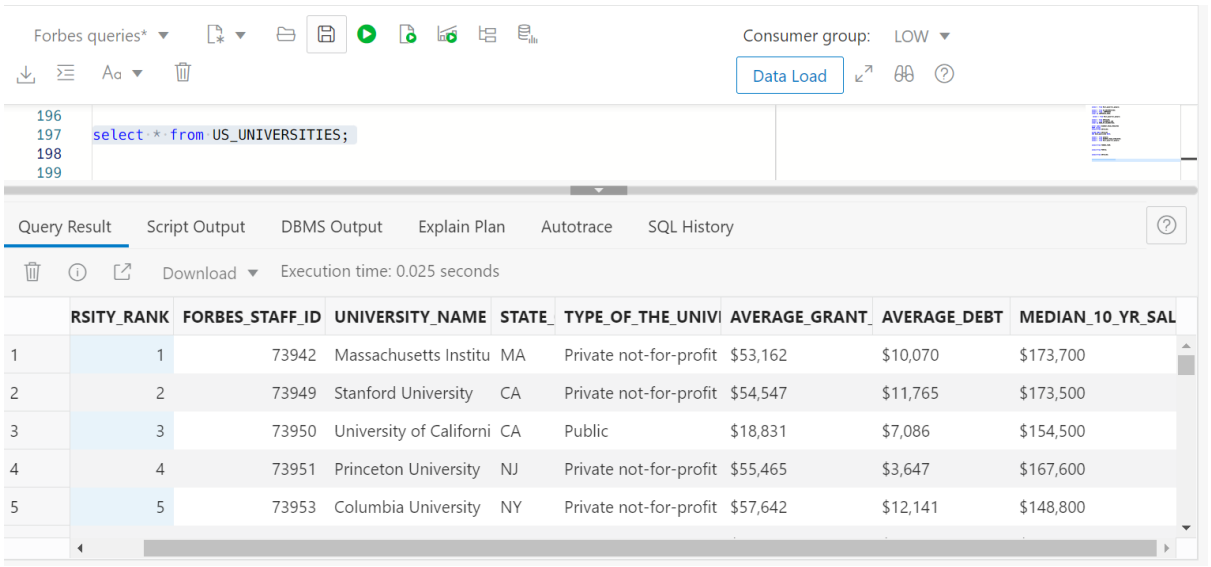

| | FORBES_STAFF_ID | TYPE_OF_STAFF |
|---|---|---|
| 1 | 73942 | Forbes Staff |
| 2 | 73943 | Contributor |
| 3 | 73944 | Contributor |
| 4 | 73945 | Senior Contributor |
| 5 | 73946 | Senior Contributor |
| 6 | 73947 | Contributor |



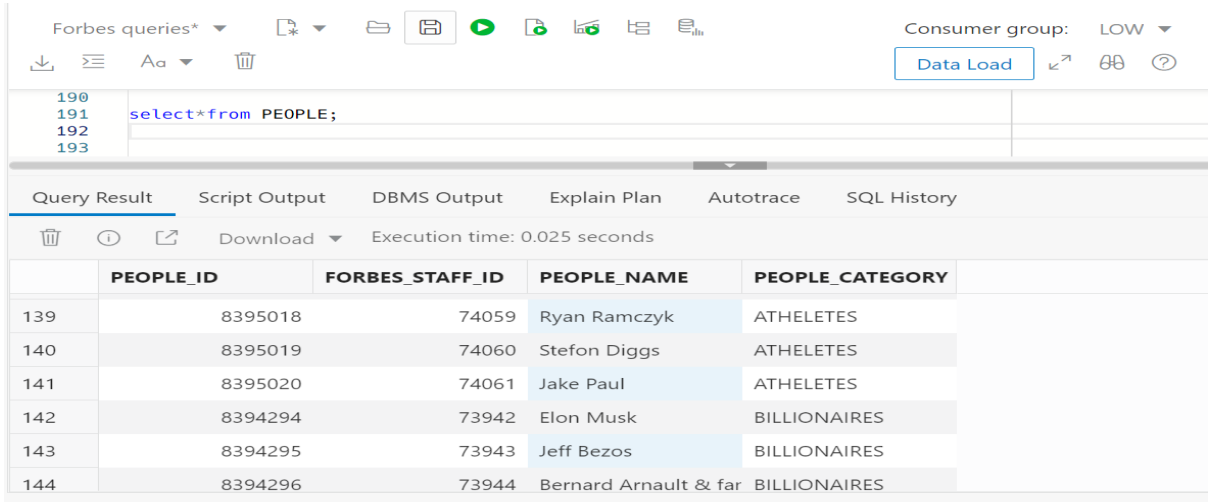

| | ARTICLE_NAME | FORBES_STAFF_ID | TYPE_OF_ARTICLE | WRITER_NAME |
|---|---|---|---|---|
| 1 | Verizon And AT&T C-Band Launch Portends Future Of 5G | 73943 | 5G | Bob O'Donnell |
| 2 | With Finance Cloud, Rippling Hopes To Become The Salesforce Of Emplc | 73949 | Cloud | Kenrick Cai |
| 3 | Intel 13th Gen Core Raptor Lake Processors Impress In A Variety Of Worl | 73990 | Consumer Tech | Dave Altavilla |
| 4 | Apple AirTag Used To Find Over 100 Stolen Democratic Campaign Signs, | 73994 | Cybersecurity | Thomas Brewster |
| 5 | Mark Zuckerberg's Metaverse Is Solving No Problems | 73997 | Enterprise Tech | Paul Tassi |



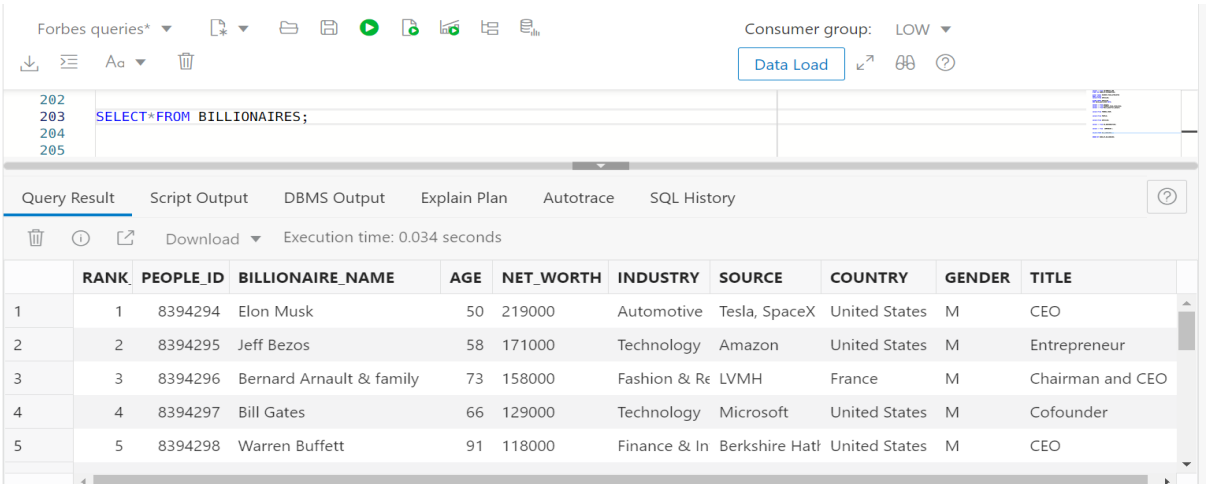

| | COMPANIES_RANK | FORBES_STAFF_ID | COMPANY_NAME | COUNTRY |
|---|---|---|---|---|
| 1 | 1 | 74058 | Berkshire Hathaway | United States |
| 2 | 2 | 74059 | ICBC | China |
| 3 | 3 | 74062 | Saudi Arabian Oil Cor | Saudi Arabia |
| 4 | 4 | 74069 | JPMorgan Chase | United States |
| 5 | 5 | 74070 | China Construction Bi | China |
| 6 | 6 | 74071 | Amazon | United States |



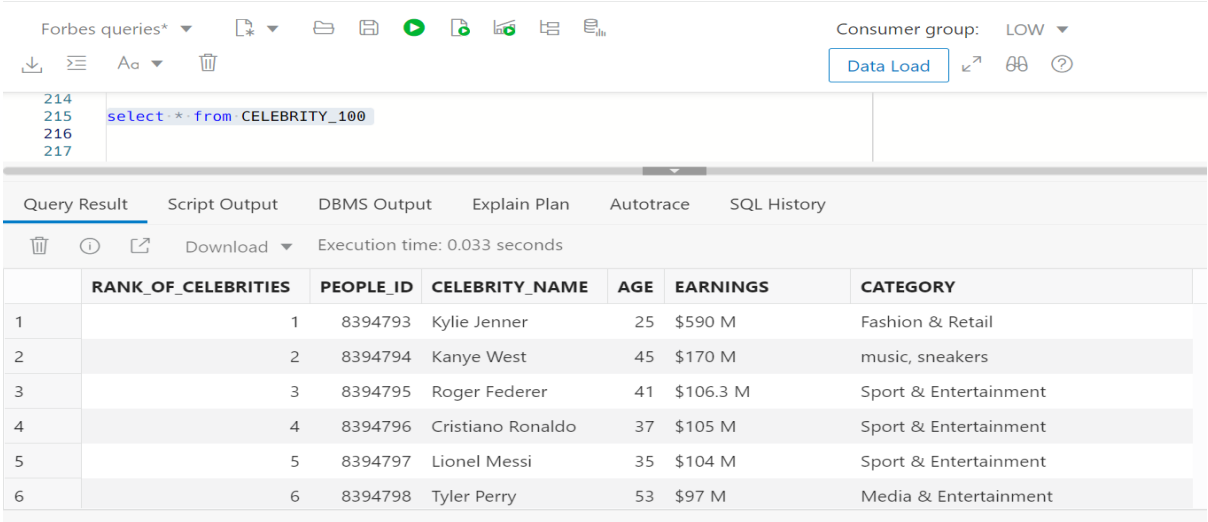

| | RSITY_RANK | FORBES_STAFF_ID | UNIVERSITY_NAME | STATE_ | TYPE_OF_THE_UNIVI | AVERAGE_GRANT_ | AVERAGE_DEBT | MEDIAN_10_YR_SAL |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 73942 | Massachusetts Institu | MA | Private not-for-profit | $53,162 | $10,070 | $173,700 |
| 2 | 2 | 73949 | Stanford University | CA | Private not-for-profit | $54,547 | $11,765 | $173,500 |
| 3 | 3 | 73950 | University of Californi | CA | Public | $18,831 | $7,086 | $154,500 |
| 4 | 4 | 73951 | Princeton University | NJ | Private not-for-profit | $55,465 | $3,647 | $167,600 |
| 5 | 5 | 73953 | Columbia University | NY | Private not-for-profit | $57,642 | $12,141 | $148,800 |



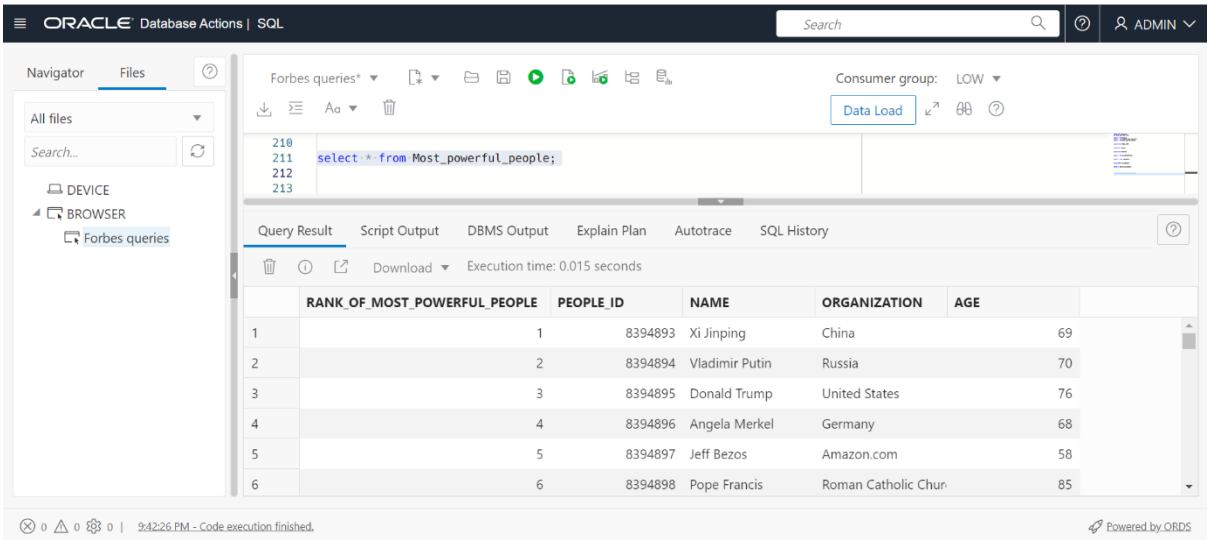

| | PEOPLE_ID | FORBES_STAFF_ID | PEOPLE_NAME | PEOPLE_CATEGORY |
|---|---|---|---|---|
| 139 | 8395018 | 74059 | Ryan Ramczyk | ATHELETES |
| 140 | 8395019 | 74060 | Stefon Diggs | ATHELETES |
| 141 | 8395020 | 74061 | Jake Paul | ATHELETES |
| 142 | 8394294 | 73942 | Elon Musk | BILLIONAIRES |
| 143 | 8394295 | 73943 | Jeff Bezos | BILLIONAIRES |
| 144 | 8394296 | 73944 | Bernard Arnault & far | BILLIONAIRES |



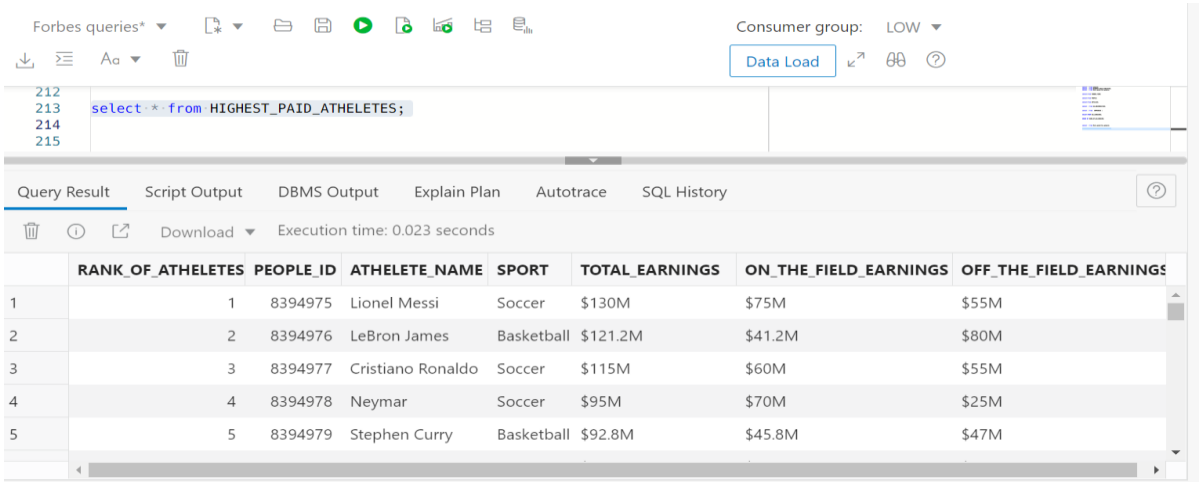

| | RANK | PEOPLE_ID | BILLIONAIRE_NAME | AGE | NET_WORTH | INDUSTRY | SOURCE | COUNTRY | GENDER | TITLE |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 8394294 | Elon Musk | 50 | 219000 | Automotive | Tesla, SpaceX | United States | M | CEO |
| 2 | 2 | 8394295 | Jeff Bezos | 58 | 171000 | Technology | Amazon | United States | M | Entrepreneur |
| 3 | 3 | 8394296 | Bernard Arnault & family | 73 | 158000 | Fashion & Re | LVMH | France | M | Chairman and CEO |
| 4 | 4 | 8394297 | Bill Gates | 66 | 129000 | Technology | Microsoft | United States | M | Cofounder |
| 5 | 5 | 8394298 | Warren Buffett | 91 | 118000 | Finance & In | Berkshire Hatl | United States | M | CEO |




| | RANK_OF_CELEBRITIES | PEOPLE_ID | CELEBRITY_NAME | AGE | EARNINGS | CATEGORY |
|---|---|---|---|---|---|---|
| 1 | 1 | 8394793 | Kylie Jenner | 25 | $590 M | Fashion & Retail |
| 2 | 2 | 8394794 | Kanye West | 45 | $170 M | music, sneakers |
| 3 | 3 | 8394795 | Roger Federer | 41 | $106.3 M | Sport & Entertainment |
| 4 | 4 | 8394796 | Cristiano Ronaldo | 37 | $105 M | Sport & Entertainment |
| 5 | 5 | 8394797 | Lionel Messi | 35 | $104 M | Sport & Entertainment |
| 6 | 6 | 8394798 | Tyler Perry | 53 | $97 M | Media & Entertainment |




| | RANK_OF_MOST_POWERFUL_PEOPLE | PEOPLE_ID | NAME | ORGANIZATION | AGE |
|---|---|---|---|---|---|
| 1 | 1 | 8394893 | Xi Jinping | China | 69 |
| 2 | 2 | 8394894 | Vladimir Putin | Russia | 70 |
| 3 | 3 | 8394895 | Donald Trump | United States | 76 |
| 4 | 4 | 8394896 | Angela Merkel | Germany | 68 |
| 5 | 5 | 8394897 | Jeff Bezos | Amazon.com | 58 |
| 6 | 6 | 8394898 | Pope Francis | Roman Catholic Chur | 85 |




| | RANK_OF_ATHELETES | PEOPLE_ID | ATHELETE_NAME | SPORT | TOTAL_EARNINGS | ON_THE_FIELD_EARNINGS | OFF_THE_FIELD_EARNINGS |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 8394975 | Lionel Messi | Soccer | $130M | $75M | $55M |
| 2 | 2 | 8394976 | LeBron James | Basketball | $121.2M | $41.2M | $80M |
| 3 | 3 | 8394977 | Cristiano Ronaldo | Soccer | $115M | $60M | $55M |
| 4 | 4 | 8394978 | Neymar | Soccer | $95M | $70M | $25M |
| 5 | 5 | 8394979 | Stephen Curry | Basketball | $92.8M | $45.8M | $47M |

In our physical model, we can observe that Forbes Staff ID was shared in all main tables. These main tables are People, Companies, Universities, Articles. The Forbes Staff ID can be utilized to join the tables together. Furthermore, People ID has been shared with all the child tables. These child tables are Billionaires, Most Power People, Celebrities, Athletes.

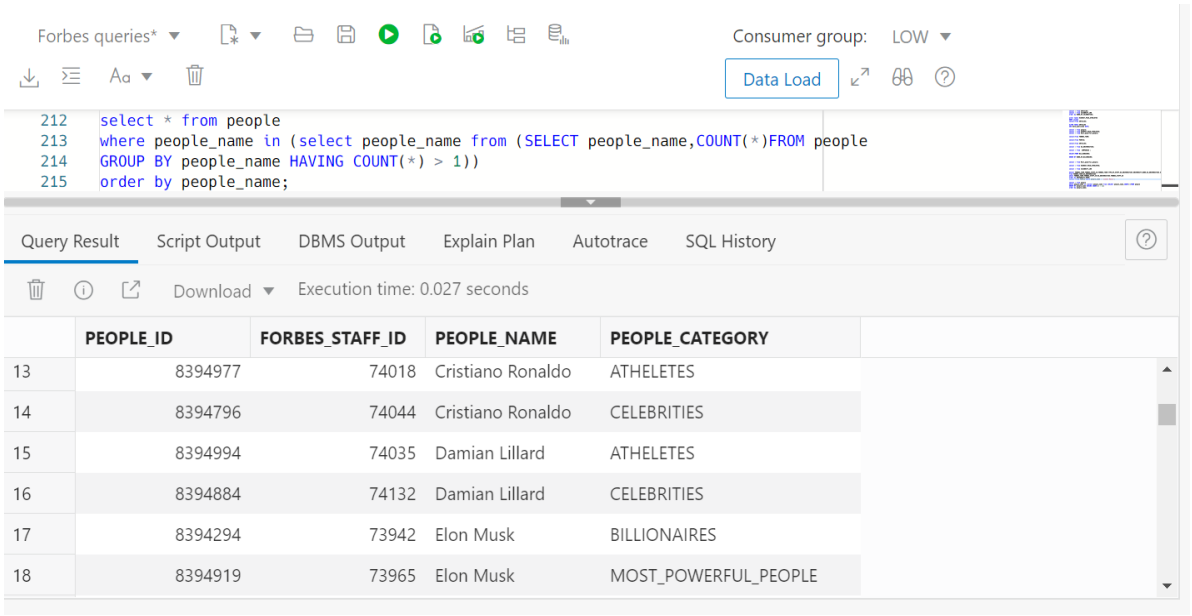
Here, Universities table shows the university rank, name, state, financial details. Companies table shows the rank, country and name. Articles table shows the article name, type of article and writer of the article. People table displays the ID, names of various categories belonging to the people. Also, all the child tables have ranks and names respectively along with their distinct attributes pertaining to each table. In people table, category has been listed with multiple categories in the cell, as it is multi-valued attribute.

# 6. Database Demonstration:

## 6.1. Final Requirements

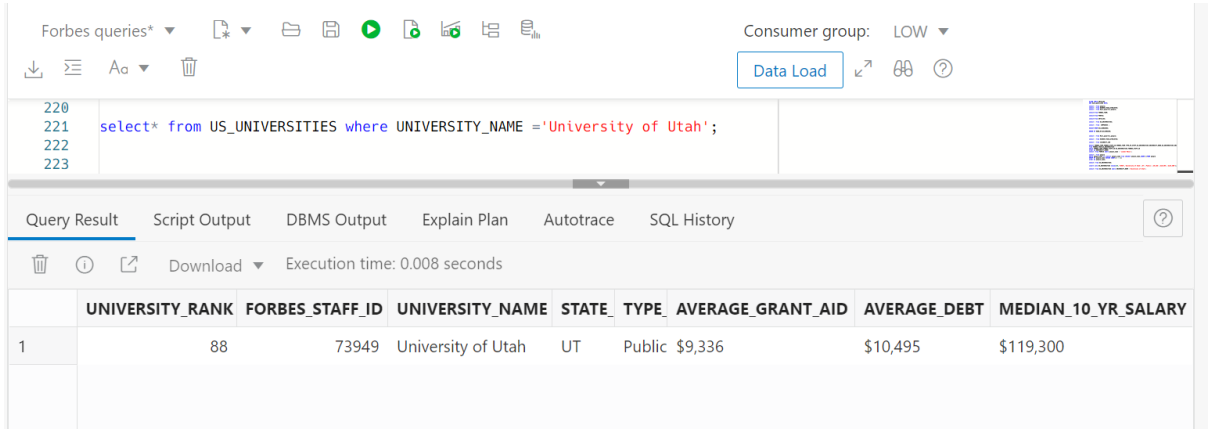
| Category | Description | Status |
|---|---|---|
| Articles | Users must be able to see the data related to articles. | Done |
| Universities | Users must be able to view the content regarding the American universities along with their rankings. | Done |
| Companies | Users must be able to see the content regarding the companies along with their rankings. | Done |
| Forbes Team | Users must be to view the data of the Forbes Team. | Done |
| Billionaires | Users must be able to see the content regarding the billionaires along with their rankings. | Done |
| Most Power People | Users must be able to see the content regarding the most power people along with their rankings. | Done |
| Athletes | Users must be able to see the content regarding the athletes along with their rankings. | Done |
| Celebrities | Users must be able to see the content regarding the celebrities along with their rankings. | Done |

## 6.2. Feature 1 Demonstration:



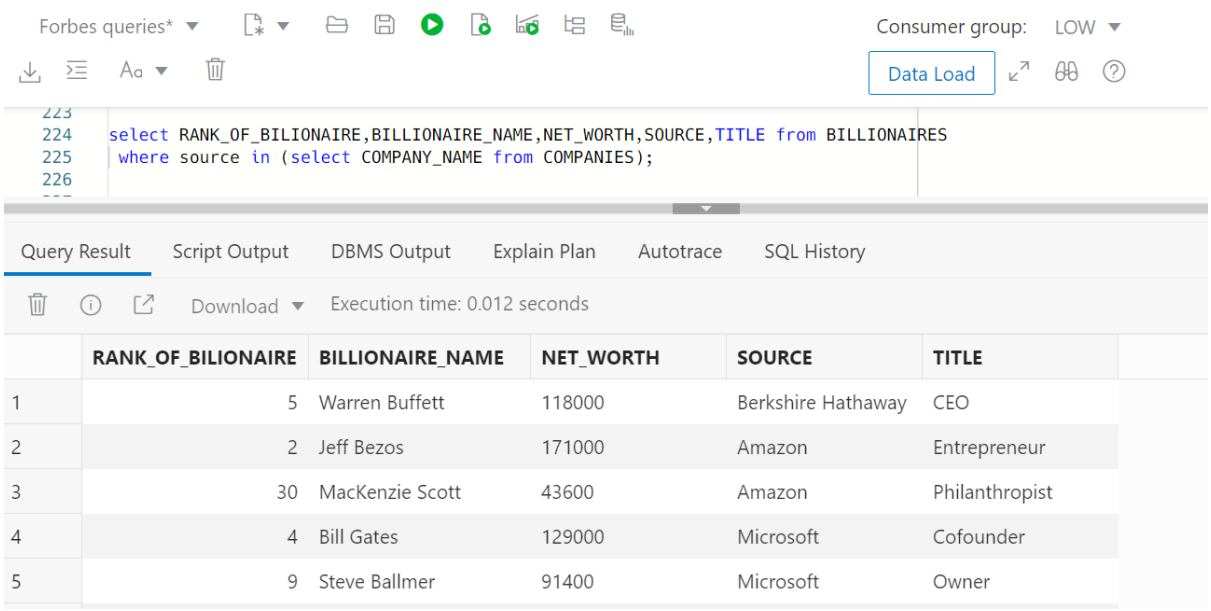

Feature 1 has been designed in such a way that it filters the people table which displays the person in more than one category (Billionaires, Most Power People, Celebrities and Athletes). In other words, a person can be listed in many categories belonging to the people. For instance, we can observe that Ronaldo is an athlete and also a Celebrity.

## 6.3. Feature 2 Demonstration:




In Feature 2, all the attributes of the entity type can be produced, by using the name of the respective category. For example, by giving the name of the university as “University of Utah”, we can observe the rank as 88 along with other attributes.

## 6.4. Feature 3 Demonstration:




| | RANK_OF_BILIONAIRE | BILLIONAIRE_NAME | NET_WORTH | SOURCE | TITLE |
|---|---|---|---|---|---|
| 1 | 5 | Warren Buffett | 118000 | Berkshire Hathaway | CEO |
| 2 | 2 | Jeff Bezos | 171000 | Amazon | Entrepreneur |
| 3 | 30 | MacKenzie Scott | 43600 | Amazon | Philanthropist |
| 4 | 4 | Bill Gates | 129000 | Microsoft | Cofounder |
| 5 | 9 | Steve Ballmer | 91400 | Microsoft | Owner |

Feature 3 shows the billionaires and their companies listed in the global 2000 companies. For instance, Warren Buffett is a billionaire ranked 5$^{th}$ globally holds his company (Bershire Hathaway) listed in Global 2000 Companies as 1$^{st}$ ranked company.

## 7. References:

Forbes Billionaires 2022: The Richest People in the World, Forbes website, accessed October 16, 2022,
<https://www.forbes.com/billionaires/>

Forbes-Wikipedia, accessed October 20, 2022,
<https://en.wikipedia.org/wiki/Forbes>

# 8. Appendix:

## 8.1. Database Sample Screenshots:

| | FORBES_STAFF_ID | TYPE_OF_STAFF |
|---|---|---|
| 1 | 73942 | Forbes Staff |
| 2 | 73943 | Contributor |
| 3 | 73944 | Contributor |
| 4 | 73945 | Senior Contributor |
| 5 | 73946 | Senior Contributor |

a. The Forbes Team consists of FORBES STAFF ID and TYPE OF STAFF

| | ARTICLE_NAME | FORBES_STAFF_ID | TYPE_OF_ARTICLE | WRITER_NAME |
|---|---|---|---|---|
| 1 | Verizon And AT&T C-Band Launch Portends Future Of 5G | 73943 | 5G | Bob O'Donnell |
| 2 | With Finance Cloud, Rippling Hopes To Become The Salesforce Of Employee Data | 73949 | Cloud | Kenrick Cai |
| 3 | Intel 13th Gen Core Raptor Lake Processors Impress In A Variety Of Workloads | 73990 | Consumer Tech | Dave Altavilla |
| 4 | Apple AirTag Used To Find Over 100 Stolen Democratic Campaign Signs, Police Say | 73994 | Cybersecurity | Thomas Brewster |
| 5 | Mark Zuckerberg's Metaverse Is Solving No Problems | 73997 | Enterprise Tech | Paul Tassi |

b. Articles consists of ARTICLE NAME, FORBES STAFF ID, TYPE OF ARTICLE and WRITER NAME.

| | UNIVERSITY_RANK | FORBES_STAFF_ID | UNIVERSITY_NAME | STATE_OF_THE_UNI | TYPE_OF_THE_UNIV | AVERAGE_GRANT_AID | AVERAGE_DEBT | MEDIAN_10_YR_SALARY |
|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 73942 | Massachusetts Institu | MA | Private not-for-profit | $53,162 | $10,070 | $173,700 |
| 2 | 2 | 73949 | Stanford University | CA | Private not-for-profit | $54,547 | $11,765 | $173,500 |
| 3 | 3 | 73950 | University of Californi | CA | Public | $18,831 | $7,086 | $154,500 |
| 4 | 4 | 73951 | Princeton University | NJ | Private not-for-profit | $55,465 | $3,647 | $167,600 |
| 5 | 5 | 73953 | Columbia University | NY | Private not-for-profit | $57,642 | $12,141 | $148,800 |
| 6 | 6 | 73954 | University of Californi | CA | Public | $15,461 | $6,243 | $137,200 |
| 7 | 7 | 73957 | Williams College | MA | Private not-for-profit | $53,164 | $5,044 | $152,600 |
| 8 | 8 | 73964 | Yale University | CT | Private not-for-profit | $59,134 | $5,262 | $163,700 |
| 9 | 9 | 73965 | Duke University | NC | Private not-for-profit | $50,914 | $8,494 | $155,000 |
| 10 | 10 | 73966 | University of Pennsyl | PA | Private not-for-profit | $54,019 | $10,681 | $164,000 |

c. Universities consists of UNIVERSITY RANK, FORBES STAFF ID, UNIVERSITY NAME, STATE, TYPE OF UNIVERSITY, AVERAGE GRANT AID, AVERAGE DEBT & MEDIAN 10 YEAR SALARY

| | COMPANIES_RANK | FORBES_STAFF_ID | COMPANY_NAME | COUNTRY |
|---|---|---|---|---|
| 1 | 1 | 74058 | Berkshire Hathaway | United States |
| 2 | 2 | 74059 | ICBC | China |
| 3 | 3 | 74062 | Saudi Arabian Oil Company (Saudi Aramco) | Saudi Arabia |
| 4 | 4 | 74069 | JPMorgan Chase | United States |
| 5 | 5 | 74070 | China Construction Bank | China |
| 6 | 6 | 74071 | Amazon | United States |
| 7 | 7 | 74073 | Apple | United States |
| 8 | 8 | 74074 | Agricultural Bank of China | China |
| 9 | 9 | 74077 | Bank of America | United States |
| 10 | 10 | 74084 | Toyota Motor | Japan |
| 11 | 11 | 74085 | Alphabet | United States |
| 12 | 12 | 74086 | Microsoft | United States |

d. Companies consists of COMPANY RANK, FORBES STAFF ID, NAME & COUNRTY

| | PEOPLE_ID | FORBES_STAFF_ID | PEOPLE_NAME | PEOPLE_CATEGORY |
|---|---|---|---|---|
| 19 | 8394891 | 74139 | Angelina Jolie | CELEBRITIES |
| 20 | 8394892 | 74140 | Mohamed Salah | CELEBRITIES |
| 21 | 8394893 | 74141 | Xi Jinping | MOST_POWERFUL_PEOPLE |
| 22 | 8394894 | 73942 | Vladimir Putin | MOST_POWERFUL_PEOPLE |
| 23 | 8394895 | 73943 | Donald Trump | MOST_POWERFUL_PEOPLE |

e. People consists of PEOPLE ID, FORBES STAFF ID, PEOPLE NAME & PEOPLE CATEGORY.

| | RANK_OF_BILIONAIRE | PEOPLE_ID | BILLIONAIRE_NAME | AGE | NET_WORTH | INDUSTRY | SOURCE | COUNTRY | GENDER | TITLE |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 8394294 | Elon Musk | 50 | 219000 | Automotive | Tesla, SpaceX | United States | M | CEO |
| 2 | 2 | 8394295 | Jeff Bezos | 58 | 171000 | Technology | Amazon | United States | M | Entrepreneur |
| 3 | 3 | 8394296 | Bernard Arnault & family | 73 | 158000 | Fashion & Retail | LVMH | France | M | Chairman and CEO |
| 4 | 4 | 8394297 | Bill Gates | 66 | 129000 | Technology | Microsoft | United States | M | Cofounder |
| 5 | 5 | 8394298 | Warren Buffett | 91 | 118000 | Finance & Investments | Berkshire Hathaway | United States | M | CEO |
| 6 | 6 | 8394299 | Larry Page | 49 | 111000 | Technology | Google | United States | M | Entrepreneur |
| 7 | 7 | 8394300 | Sergey Brin | 48 | 107000 | Technology | Google | United States | M | Cofounder and board |
| 8 | 8 | 8394301 | Larry Ellison | 77 | 106000 | Technology | software | United States | M | CTO and Founder |
| 9 | 9 | 8394302 | Steve Ballmer | 66 | 91400 | Technology | Microsoft | United States | M | Owner |
| 10 | 10 | 8394303 | Mukesh Ambani | 64 | 90700 | Diversified | diversified | India | M | Founder and Chairma |

f. Billionaires consists of RANK, PEOPLE ID , NAME, AGE, NETWORTH, INDUSRTY, SOURCE, COUNTRY, GENDER & TITLE

| | RANK_OF_MOST_POWERFUL_PEOPLE | PEOPLE_ID | NAME | ORGANIZATION | AGE |
|---|---|---|---|---|---|
| 1 | 1 | 8394893 | Xi Jinping | China | 69 |
| 2 | 2 | 8394894 | Vladimir Putin | Russia | 70 |
| 3 | 3 | 8394895 | Donald Trump | United States | 76 |
| 4 | 4 | 8394896 | Angela Merkel | Germany | 68 |
| 5 | 5 | 8394897 | Jeff Bezos | Amazon.com | 58 |
| 6 | 6 | 8394898 | Pope Francis | Roman Catholic Church | 85 |
| 7 | 7 | 8394899 | Bill Gates | Bill & Melinda Gates Foundation | 66 |
| 8 | 8 | 8394900 | Mohammed bin Salman Al Saud | Saudi Arabia | 37 |
| 9 | 9 | 8394901 | Narendra Modi | India | 72 |
| 10 | 10 | 8394902 | Larry Page | Alphabet | 49 |
| 11 | 11 | 8394904 | Jerome H. Powell | United States | 69 |
| 12 | 12 | 8394905 | Emmanuel Macron | France | 44 |

g. Most power people consist of RANK, PEOPLE ID, NAME, ORGANIZATION & AGE.

| | RANK_OF_ATHELETES | PEOPLE_ID | ATHELETE_NAME | SPORT | TOTAL_EARNINGS | ON_THE_FIELD_EARNINGS | OFF_THE_FIELD_EARNINGS |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 8394975 | Lionel Messi | Soccer | $130M | $75M | $55M |
| 2 | 2 | 8394976 | LeBron James | Basketball | $121.2M | $41.2M | $80M |
| 3 | 3 | 8394977 | Cristiano Ronaldo | Soccer | $115M | $60M | $55M |
| 4 | 4 | 8394978 | Neymar | Soccer | $95M | $70M | $25M |
| 5 | 5 | 8394979 | Stephen Curry | Basketball | $92.8M | $45.8M | $47M |
| 6 | 6 | 8394980 | Kevin Durant | Basketball | $92.1M | $42.1M | $50M |
| 7 | 7 | 8394981 | Roger Federer | Tennis | $90.7M | $700K | $90M |
| 8 | 8 | 8394982 | Canelo Alvarez | Boxing | $90M | $85M | $5M |
| 9 | 9 | 8394983 | Tom Brady | Football | $83.9M | $31.9M | $52M |
| 10 | 10 | 8394984 | Giannis Antetokounmpo | Basketball | $80.9M | $39.9M | $41M |
| 11 | 11 | 8394985 | Russell Westbrook | Basketball | $79.2M | $44.2M | $35M |
| 12 | 12 | 8394986 | James Harden | Basketball | $74.4M | $44.4M | $30M |

h. Athletes consists of RANK, PEOPLE ID, NAME, SPORT, TOTAL EARNINGS, ON-FIELD EARNINGS & OFF-FIELD EARNINGS.

| | RANK_OF_CELEBRITIES | PEOPLE_ID | CELEBRITY_NAME | AGE | EARNINGS | CATEGORY |
|---|---|---|---|---|---|---|
| 1 | 1 | 8394793 | Kylie Jenner | 25 | $590 M | Fashion & Retail |
| 2 | 2 | 8394794 | Kanye West | 45 | $170 M | music, sneakers |
| 3 | 3 | 8394795 | Roger Federer | 41 | $106.3 M | Sport & Entertainment |
| 4 | 4 | 8394796 | Cristiano Ronaldo | 37 | $105 M | Sport & Entertainment |
| 5 | 5 | 8394797 | Lionel Messi | 35 | $104 M | Sport & Entertainment |
| 6 | 6 | 8394798 | Tyler Perry | 53 | $97 M | Media & Entertainment |
| 7 | 7 | 8394799 | Neymar | 30 | $95.5 M | Sport & Entertainment |
| 8 | 8 | 8394800 | Howard Stern | 68 | $90 M | Radio & Television |
| 9 | 9 | 8394801 | LeBron James | 37 | $88.2 M | Sport & Entertainment |
| 10 | 10 | 8394802 | Dwayne Johnson | 50 | $87.5 M | Sports, Media & Entertainment, Entrepreneur |
| 11 | 11 | 8394803 | Rush Limbaugh | 71 | $85 M | Media & Poilitics |
| 12 | 12 | 8394804 | Ellen DeGeneres | 64 | $84 M | Media & Entertainment |

i. Celebrities consists of RANK, PEOPLE ID, NAME, AGE, EARNINGS & CATEGORY.

8.2. Time-tracking Details:

| Date | Team Member | Hours Spent | Description of work | Comments |
|---|---|---|---|---|
| 9/17/2022 | RVR.Anjani Kumar, Maniteja Kurukunda, Sanskriti Bhargava, Nitesh Chintawar | 2 | Project Kick-off: Met to discuss the proposal of the project | N/A |
| 9/19/2022 | Maniteja Kurukunda | 0.2 | Submitted Proposal | N/A |
| 10/3/2022 | RVR.Anjani Kumar | 2.5 | Environment setup | N/A |
| 10/4/2022 | Sanskriti Bhargava | 6 | Business user requirements gathering | N/A |
| 10/4/2022 | Maniteja Kurukunda | 2 | Reviewing correcting errors and adding needed information and finalizing Business user requirements | N/A |
| 10/8/2022 | Nitesh Chintawar | 5 | Conceptual modelling | N/A |
| 10/10/2022 | Maniteja Kurukunda | 2.5 | Reviewing correcting errors and adding needed information and finalizing conceptual modelling | N/A |
| 10/14/2022 | RVR.Anjani Kumar | 4 | Logical modelling | N/A |
| 10/16/2022 | Maniteja Kurukunda | 1.5 | Reviewing correcting errors and adding needed information and finalizing logical modelling | N/A |
| 10/17/2022 | Nitesh Chintawar | 5 | Writing queries to implement the physical modelling | N/A |
| 10/18/2022 | Maniteja Kurukunda | 1 | Reviewing correcting errors and adding needed information and finalizing physical modelling | N/A |
| 10/19/2022 | Maniteja Kurukunda | 3 | Collection of required data into csv files | N/A |
| 10/20/2022 | Maniteja Kurukunda | 2 | Loading csv files data into tables using | N/A |
| 10/21/2022 | Sanskriti Bhargava | 1 | Writing select queries to retrieve the data | N/A |
| 10/22/2022 | RVR.Anjani Kumar | 3 | Cross checking the data insertion in all tables | N/A |
| 10/23/2022 | Maniteja Kurukunda | 1 | Writing queries for features | N/A |
| 10/23/2022 | Maniteja Kurukunda | 1.5 | Reviewing correcting errors and adding needed information the final requirements met through physical modelling | N/A |
| 10/23/2022 | Nitesh Chintawar | 2.5 | Collecting the information and taking the screen shots of query outputs for project report | N/A |
| 10/23/2022 | RVR.Anjani Kumar | 6 | Preparing the project report | N/A |
| 10/23/2022 | Sanskriti Bhargava | 5 | collecting data for ppt and preparing ppt | N/A |
| 10/24/2022 | Maniteja Kurukunda | 4 | Reviewing correcting errors and adding needed information and finalizing project report and ppt | N/A |

8.3. Time-tracking Summary:

| Team Member | Project total Hours | Comments |
|---|---|---|
| Maniteja Kurukunda | 20.5 | N/A |
| RVR.Anjani Kumar | 17.5 | N/A |
| Nitesh Chintawar | 14.5 | N/A |
| Sanskriti Bhargava | 14.5 | N/A |