

This document contains the information pertaining to the addition of a “Jobs in Sports” repository as part of the AI Skunks database. The questions that I was hoping to be answered initially are:

What kind of jobs are most available in the sports world?

Can I find data related jobs in sports easily? (Personal question but can apply to any discipline)

Who can I contact to network and inquire about the job?

In order to do this, the database was planned to consist of at least, Job Postings, Required Skills, Company Information, and ideally Recruiter Information. These can be better described below:

Job Postings from sites such as Teamwork Online/LinkedIn/indeed etc. The info here will likely be Job ID's, Team/Company Name, Team/Company Designation (Sports teams will be kept differently than large scale sports firms), Salary Info, Date Posted, Deadline Date, Location, Remote option, etc.

Company Information from the company site (Likely teams). This data will include at a minimum, Team/Company Name/ID, League, Size, Market Size, etc.

Required Skills parsed from the job postings to aid with matching job seekers to the jobs and to assist them with learning necessary skills to enter the sports world.

Recruiter Information in hopes that job seekers can have a foot forward by having a contact to reach out to and make a connection. This will likely include Name (First and Last), Team Email, Phone (if Possible), Department, etc.

The project was made with the aim to attempt and mimic other repositories in the database in hopes to match job seekers with the right teams for them and provide guidance on the skills that are in demand as well as a contact so that they can better enter one of the harder markets out there. First, as previously mentioned existing databases like LinkedIn and Teamwork online needed to be better researched to know what data is needed. They then needed to be scraped and data collected prior to cleaning and wrangling. Once it is at the point for database insertion, MYSQL was preferred and used via python to enter data and be referenced after initial scraping.

While the aim of the project was trivial this was an individual effort and far from simple. The true process consisted of researching the familiar databases around and understanding the data available. Then an ER Diagram was designed in order to provide a base line. This was done at the point of the twitter API checkpoint as seen below.

At this point countless hours were allocated to learning the Twitter API which was an extremely useful skill and so the twitter data was kept in cleaned form under a series of twitter tables. Twitter however was not the best site to use as it is one of if not the least formal sites around and does not have the ideal platform for job seekers.

Following suit, LinkedIn was scraped and inserted into the database in a single day illustrating exponential growth in data collection and storage knowledge. With the data collected, several steps were taken to ensure the database was as normalized as possible. Some issues in the

table creations were found in these steps and addressed using altering comments in parallel with adjusting the initial create table statements [Therefore Alter Statements should not be needed].

While the initial goals of this project were big, they turned out not to be feasible for a group of 1. Indeed's Security, LinkedIn's legal standing on web scraping, and locked recruiter information internet-wide proved to be some of many roadblocks. That being said, the database as completed is an illustration of what was able to be accomplished in a short amount of time by one individual. Moving Forward there are things that will be ideally fixed. More time will go into Indeed scraping / potential API usage as the information on that site is the best seen to this point. The data there will ideally be cleaned up and more scripts will be developed for future scraping. Additionally, the twitter data will be extracted further to narrow down real job opportunities only and not just tweets that could be jobs. The concept of a job database requires continuous refreshes and will be implemented in the best-case scenario. Below is a description of all files included for ease of reader.

#### Files Included:

**Twitter Scrape.IPYNB** – Python Twitter API (TWEETPY) code to scrape twitter and insert into Tweets, Tweet\_Mentions and Tweet\_user tables

**Teamwork Online Scrape.IPYNB** – Python script to make the original scrape of Teamwork Online and create all tables for rest of database. Data inserted into job\_postings, Company\_Team, sources, job\_requirements, etc

**Teamwork Online Scrape Refreshes.IPYNB** – Python Script for all additional scrapes following the initial teamwork scrape. Should avoid duplicating current database before inserts

**LinkedIn Scrape.IPYNB** – Python Script to scrape LinkedIn with some keywords (league names) specified. Should also be aware of current database

**JobsInSports\_Schema** - ER Diagram for database including future tables such as recruiter info that weren't able to be made as data was not able to be found yet

**Table Alter Statements / Table Creation Statements / jobsinsports\_views** - Other files including SQL Create Statements, use cases, Views & Alters (ignore Alters assuming no errors)

**References** – Referenced sites and links for data and information during the project

**Other Images:**

**USE CASES:**

**1.**

**Use Case: Search for Analyst Jobs in the NHL**

**Description: User wants to find job posts for the National Hockey League**

**Actors: User**

**Precondition: User must have access to the database**

**Actor action – User queries for job postings joined with companies based in the NHL**

**System Responses – Database results with company league\_short as NHL are displayed**

**2.**

**Use Case: Search for job requirements to job postings in Massachusetts**

**Description: User wants to find requirements of jobs in Massachusetts that are in the database**

**Actors: User**

**Precondition: User must have access to the database**

**Actor action: User queries for job postings with locations in MA**

**System Responses: A list of all job postings and their state are displayed with requirements for them**

**3.**

**Use Case: Find the league with the most postings available**

**Description: User wants to find out which league is looking for the most help**

**Actors: User**

**Precondition: User must have access to the database**

**Actor action: User queries for a count of all job postings by league**

**System Responses: Each league and a count of postings is displayed**

**4.**

**Use Case:** Find remote jobs not on a sport team but in the sports domain

**Description:** User wants to find jobs that are not on sports teams but still sports related and offered remotely

**Actors:** User

**Precondition:** User must have access to the database

**Actor action:** User queries for jobs with locations that mention remote and have NULL or NA leagues

**System Responses:** job postings are displayed for the met criteria

**5.**

**Use Case:** Find links to job postings for the Spring specifically in the MLB

**Description:** User wants to find Spring jobs for professional baseball teams

**Actors:** User

**Precondition:** User must have access to the database

**Actor action:** User Queries for job postings with company league of Major League Baseball and a job title like spring

**System Responses:** Job titles containing spring and their respective location is displayed

## SQL FOR USE CASES:

1.

```
CREATE VIEW NHL_Analysts AS
SELECT c.company_name, p.job_title, c.league_short, p.job_city, p.job_state
FROM job_posting p
JOIN company_team c
ON p.company_ID = c.company_ID
WHERE p.job_title LIKE "%analyst%" and c.league_short = "NHL" OR c.company_name =
'National Hockey League';
```

2.

```
CREATE VIEW MA_job_postings AS
SELECT p.job_ID, p.job_title, p.job_city, p.job_state, r.requirements
FROM job_posting p
JOIN job_requirements r
ON p.job_ID = r.job_ID
WHERE p.job_state LIKE "%MA";
```

3.

```
CREATE VIEW league_listings AS
SELECT c.league_short, COUNT(p.job_ID) as league_postings
FROM job_posting p
JOIN company_team c
ON p.company_ID = c.company_ID
GROUP BY c.league_short
ORDER BY league_postings DESC;
```

4.

```
CREATE VIEW remote_non_league AS
```

```
SELECT p.job_ID, p.job_title, p.scraped_datetime, p.job_city, p.posting_url, c.company_ID,  
c.company_name
```

```
FROM job_posting p
```

```
JOIN company_team c
```

```
ON p.company_ID = c.company_ID
```

```
WHERE c.league IS NULL AND (p.job_city LIKE "%remote%" OR p.job_state LIKE  
"%remote%");
```

5.

```
CREATE VIEW spring_jobs AS
```

```
SELECT c.company_name, p.job_title, c.league_short, p.posting_url
```

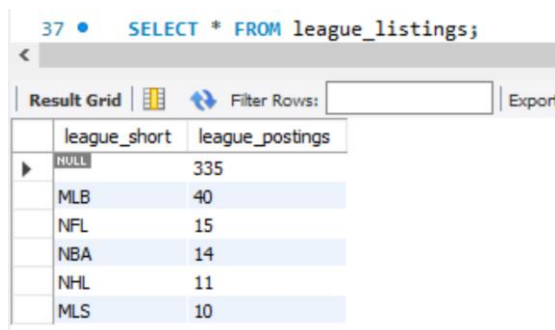
```
FROM job_posting p
```

```
JOIN company_team c
```

```
ON p.company_ID = c.company_ID
```

```
WHERE p.job_title LIKE "%Spring%";
```

1.

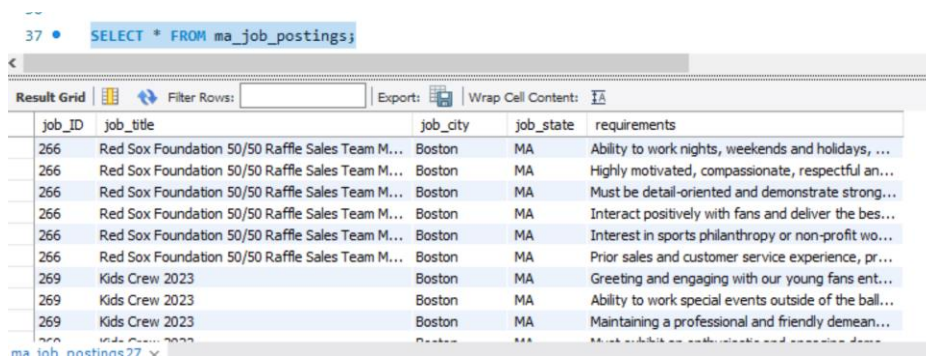


37 • SELECT \* FROM league\_listings;

Result Grid | Filter Rows: | Export

	league_short	league_postings
▶	NULL	335
	MLB	40
	NFL	15
	NBA	14
	NHL	11
	MLS	10

2.



37 • SELECT \* FROM ma\_job\_postings;

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	job_ID	job_title	job_city	job_state	requirements
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Ability to work nights, weekends and holidays, ...
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Highly motivated, compassionate, respectful an...
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Must be detail-oriented and demonstrate strong...
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Interact positively with fans and deliver the bes...
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Interest in sports philanthropy or non-profit wo...
	266	Red Sox Foundation 50/50 Raffle Sales Team M...	Boston	MA	Prior sales and customer service experience, pr...
	269	Kids Crew 2023	Boston	MA	Greeting and engaging with our young fans ent...
	269	Kids Crew 2023	Boston	MA	Ability to work special events outside of the ball...
	269	Kids Crew 2023	Boston	MA	Maintaining a professional and friendly demean...
	269	Kids Crew 2023	Boston	MA	Must exhibit an enthusiastic and energetic demean...

ma job postings 27 x

3.

36

37 • `SELECT * FROM nhl_analysts;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [A](#)

	company_name	job_title	league_short	job_city	job_state
▶	National Hockey League	Business Analyst	NULL	New York	NY
	Vegas Golden Knights	CRM & Database Analyst	NHL	Las Vegas	NV
	National Hockey League	Director, Finance - Sponsorship & Partnership M...	NULL	New York	NY
	National Hockey League	Off Ice Official (Part Time /Seasonal)	NULL	Dallas	TX
	National Hockey League	Sr. Manager, Innovation	NULL	New York	NY
	National Hockey League	Director, Club Business Affairs	NULL	New York	NY
	National Hockey League	Senior Manager, Club Business Affairs	NULL	New York	NY
	National Hockey League	Coordinator, Business Development - Internatio...	NULL	New York	NY
	National Hockey League	Manager, Event Communications and Player De...	NULL	New York	NY
	National Hockey League	Assistant, Social Impact, Growth Initiatives and	NULL	New York	NY

nhl\_analysts 28 ▼

4.

37 • `SELECT * FROM remote_non_league;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [A](#)

	job_ID	job_title	scraped_datetime	job_city	posting_url	company_ID	company_name
	3	Senior Director, Strategic Partnerships	2022-12-11 22:05:38	Open to Remote	<a href="https://www.teamworkonline.com/multiple-prop...">https://www.teamworkonline.com/multiple-prop...</a>	105	OneTeam Partners
	6	Sponsorship & Athlete Marketing Coordinator	2022-12-11 22:05:39	Open to Remote	<a href="https://www.teamworkonline.com/multiple-prop...">https://www.teamworkonline.com/multiple-prop...</a>	105	OneTeam Partners
	21	Coordinator, Social Media	2022-12-11 22:05:43	Remote	<a href="https://www.teamworkonline.com/other-sports...">https://www.teamworkonline.com/other-sports...</a>	116	Professional Bull Riders
	132	Bilingual (Spanish) Web Coordinator	2022-12-11 22:06:08	Kansas City	<a href="https://www.teamworkonline.com/soccer-jobs/...">https://www.teamworkonline.com/soccer-jobs/...</a>	130	Sporting KC
	226	Game Day Social Media & Highlights Coordinator	2022-12-11 22:06:29	Carlsbad	<a href="https://www.teamworkonline.com/soccer-jobs/...">https://www.teamworkonline.com/soccer-jobs/...</a>	82	Major Arena Soccer League
	255	Regional Development Officer—Texas, West Co...	2022-12-11 22:06:37	Remote: Texas	<a href="https://www.teamworkonline.com/olympic-jobs/...">https://www.teamworkonline.com/olympic-jobs/...</a>	143	USA Triathlon

5.

37 • `SELECT * FROM spring_jobs;`

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [A](#)

	company_name	job_title	league_short	posting_url
	500 Festival	500 Festival Post-Race Party, Course Entertain...	NULL	<a href="https://www.teamworkonline.com/live-event-jo...">https://www.teamworkonline.com/live-event-jo...</a>
	United Soccer League	USL League Two Operations Internship - Spring ...	NULL	<a href="https://www.teamworkonline.com/soccer-jobs/...">https://www.teamworkonline.com/soccer-jobs/...</a>
	FC Tulsa	Merchandise Internship, Spring 2023	NULL	<a href="https://www.teamworkonline.com/soccer-jobs/...">https://www.teamworkonline.com/soccer-jobs/...</a>
	Pittsburgh Penguins	Corporate Social Responsibility and Diversity, E...	NHL	<a href="https://www.teamworkonline.com/hockey-jobs/...">https://www.teamworkonline.com/hockey-jobs/...</a>
	National Football League	2023 Spring Law Clerk	NULL	<a href="https://www.linkedin.com/jobs/view/2023-sprin...">https://www.linkedin.com/jobs/view/2023-sprin...</a>



## 4 Main Tables

1. Job\_posting – contains all job titles, posting dates, scraped dates, application deadlines, salary estimates, location (city and state) source\_ID, company\_ID, and posting website.

```
49 • SELECT *
50 FROM job_posting;
```

job_ID	job_title	company_ID	posting_datetime	scraped_datetime	applici	salary	job_city	job_state	posting_url
3313...	Senior Manager, Club Business Affairs	275	2022-11-30 21:36:31	2022-12-14 21:36:31	NA	\$80,000...	New York	NY	https://www.linkedin.com/jobs/view/se
3314...	Coordinator, Business Development - Internatio...	275	2022-11-30 21:36:20	2022-12-14 21:36:20	NA	\$50,000...	New York	NY	https://www.linkedin.com/jobs/view/co
3321...	Manager, Event Communications and Player De...	275	2022-11-30 21:36:23	2022-12-14 21:36:23	NA	\$70,000...	New York	NY	https://www.linkedin.com/jobs/view/ms
3322...	Assistant - Social Impact, Growth Initiatives and...	275	2022-11-30 21:36:23	2022-12-14 21:36:23	NA	\$50,000...	New York	NY	https://www.linkedin.com/jobs/view/as
3323...	Royalty Analyst	275	2022-12-09 21:36:30	2022-12-14 21:36:30	NA	\$50,000...	New York	NY	https://www.linkedin.com/jobs/view/ro
3323...	Product Designer	275	2022-12-09 21:36:31	2022-12-14 21:36:31	NA	\$120,000...	New York	NY	https://www.linkedin.com/jobs/view/pr
3327...	Director, Club Innovation & Business Development	275	2022-11-30 21:36:21	2022-12-14 21:36:21	NA	\$140,000...	New York	NY	https://www.linkedin.com/jobs/view/di
3333...	Project Employee, Social Content - Graphic Design	276	2022-12-10 21:36:43	2022-12-14 21:36:43	NA	\$1,153pe...	Secaucus	NJ	https://www.linkedin.com/jobs/view/pr
3334...	Senior Coordinator, Club Marketing	273	2001-08-29 21:24:51	2022-12-14 21:24:51	NA	\$60,000...	New York	NY	https://www.linkedin.com/jobs/view/se
3334...	Manager, Media Strategy & Business Development	274	2022-12-11 21:25:05	2022-12-14 21:25:05	NA	NA	New York	NY	https://www.linkedin.com/jobs/view/ms
3338...	Senior Director, E-Commerce	275	2022-11-30 21:36:22	2022-12-14 21:36:22	NA	\$140,000...	New York	NY	https://www.linkedin.com/jobs/view/se
3339...	Part-Time Designer/Animator	274	2022-11-23 21:25:09	2022-12-14 21:25:09	NA	NA	Inglewood	CA	https://www.linkedin.com/jobs/view/pe
3340...	Analyst - Travel & Procurement	275	2022-11-30 21:36:25	2022-12-14 21:36:25	NA	\$55,000...	New York	NY	https://www.linkedin.com/jobs/view/ar
3341...	Director, Employee Relations	274	2022-11-30 21:25:02	2022-12-14 21:25:02	NA	NA	New York	NY	https://www.linkedin.com/jobs/view/di
3341...	Product Designer	276	2022-11-30 21:36:40	2022-12-14 21:36:40	NA	\$110,000...	New York	NY	https://www.linkedin.com/jobs/view/pr
3341...	Project Manager, Multicultural Marketing	275	2022-12-08 21:36:29	2022-12-14 21:36:29	NA	\$75,000...	New York	NY	https://www.linkedin.com/jobs/view/pr
3341...	Director, Multicultural Engagement & Integration	275	2022-12-08 21:36:27	2022-12-14 21:36:27	NA	\$115,000...	New York	NY	https://www.linkedin.com/jobs/view/di
3344...	Coordinator, Ticket Operations	275	2022-12-08 21:36:24	2022-12-14 21:36:24	NA	\$52,000...	New York	NY	https://www.linkedin.com/jobs/view/co
3350...	Director, NFL+ Content	274	2022-11-30 21:25:07	2022-12-14 21:25:07	NA	NA	Inglewood	CA	https://www.linkedin.com/jobs/view/di
3350...	Illustrator, Social Media (External Agency Emplo...	274	2022-11-30 21:25:12	2022-12-14 21:25:12	NA	NA	Inglewood	CA	https://www.linkedin.com/jobs/view/ill

2. Company\_Team – Company\_ID, company\_name, headquarters (~location city and state), league, league\_short (abbreviation), stadium (name), capacity, founded\_year.

```
37 • SELECT * FROM Company_Team;
```

company_ID	company_name	company_headquarters_city	company_headquarters_state	league	league_short	stadium	stadium_capacity	founded_year
157	Washington Wizards	Washington	D.C.	National Baseball Assoc...	NBA	Capital One ...	20356	1961
158	Wilmington Blue Rocks	NA	NA	NA	NA	NA	NA	NA
159	Worcester Red Sox	NA	NA	NA	NA	NA	NA	NA
160	3Step Soccer	NA	NA	NA	NA	NA	NA	NA
161	Baltimore Orioles	Baltimore	Maryland	Major League Baseball	MLB	Oriole Park a...	45971	1901
162	New York Yankees	New York City	New York	Major League Baseball	MLB	Yankee Stad...	47300	1901
163	Toronto Blue Jays	Toronto	Ontario	Major League Baseball	MLB	Rogers' Yanke Stadium	49265	1977
164	Cleveland Guardians	Cleveland	Ohio	Major League Baseball	MLB	Progressive ...	34830	1901
165	Minnesota Twins	Minneapolis	Minnesota	Major League Baseball	MLB	Target Field	38871	1961
166	Los Angeles Angels	Anaheim	California	Major League Baseball	MLB	Angel Stadium	45957	1961
167	Oakland Athletics	Oakland	California	Major League Baseball	MLB	RingCentral ...	35067	1901
168	Seattle Mariners	Seattle	Washington	Major League Baseball	MLB	T-Mobile Park	47943	1977
169	Texas Rangers	Arlington	Texas	Major League Baseball	MLB	Globe Life Field	40300	1961
170	Atlanta Braves	Cumberland	Georgia	Major League Baseball	MLB	Truist Park	41500	1871
171	Miami Marlins	Miami	Florida	Major League Baseball	MLB	LoanDepot P...	36742	1993
172	New York Mets	New York City	New York	Major League Baseball	MLB	Citi Field	41922	1962

3. Job\_requirements

```
49 • SELECT *
50 FROM job_requirements;
```

job_ID	requirements
3384...	Hires, develops, and retains diverse talent that makes a strong, positive impact on the organization
3384...	Sets goals and manages the performance of direct report(s) using the established performance review process
3384...	Supports learning and development of direct report(s)
3384...	Facilitates regular, ongoing communication with direct report(s)
3384...	Promotes adherence to internal policies, holding self and direct report(s) accountable to those policies
3302...	Prepare journal entry support
3302...	Assist various MLB entities with accounts payable and prepare related bank reconciliations
3302...	Assist with day to day accounts receivable activities including drafting bills for international broadcast, publishing and productions
3302...	Assist with reconciliations of Balance Sheet and Profit & Loss accounts
3302...	Assist with the financial close within the accounting system
3302...	Collect data from various foreign offices
3302...	Prepare analyses and reporting of financial data at the end of each month
3302...	Assist with the dissemination of information to the auditors

4. Sources – simple source reference table to identify source name where each job posting was found and includes source\_ID, source\_name

```
37 • SELECT * FROM sources;
```

Result Grid | Filter Rows:

	source_ID	source_name
▶	1	Twitter
	2	Teamwork Online
	3	Linkedin
✱	NULL	NULL

Finally, below are some of the Less used tables in the database that are included due to the twitter API assignment being a prominent piece of the semester. These tables were not the focus of this database but will be improved moving forward.

5. Tweet\_user – user profile information for all users of scraped tweets.

```
49 • SELECT *
50 FROM tweet_user;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

user_ID	user_handle	user_name	user_bio	user_location	user_join_date	user_fav_count	user_follower_count	user_following_co
22837487	NYSBA	New York State Bar Association	Serving attorneys and the community since 187...	1 Elk Street, Albany, NY	2009-03-04 16:28:45	5901	19401	1632
22875075	CA_ATL_HRTA2	Hospitality/Restaurant Jobs in Atlan...	Follow this account for geo-targeted Hospitality...	Atlanta, GA	2009-03-04 22:44:08	0	355	191
24065241	onetwocross	Shingo Kohara	Go Warriors and Golden State TKD!	iPhone: 37.570454,-1...	2009-03-12 19:16:38	699	541	1986
24854155	vmdruz	Maryann Virginia Druz	finding the horizon	India	2009-03-17 03:41:19	42887	224	867
25312400	SyracuseMets	Syracuse Mets	The Official Twitter of the Syracuse Mets   Tripl...	Syracuse, NY	2009-03-19 11:05:49	12734	30590	798
25396117	themediamentor	Jobs by Media Mentor	Jobs & advice for media professionals & student...	51.422919,-0.685714	2009-03-19 18:16:30	14067	18530	1752
25482527	ciencoll	Cirencester College	Your specialist Sixth Form provider. Follow us o...	Cirencester	2009-03-20 05:31:53	853	4764	335
25517844	Dbetras	David Betras	I'm a father, Husband, attorney I love boating. ...	Mahoning Valley	2009-03-20 11:10:02	1981	2257	1377
26005689	annarbornews	The Ann Arbor News	Local news covering Ann Arbor and the Washte...	Ann Arbor, Michigan	2009-03-23 10:04:24	178	60951	1109
27090815	darthvinson	tarkheena	Unimportant Indo-Brit abroad. Musician, if anyo...		2009-03-27 16:35:25	7030	135	1374
27374841	dark_memer	dark_memer			2009-03-28 23:51:10	14149	109	415
28345003	SBCubs	South Bend Cubs	Chicago Cubs High-A affiliate. x2 Voted Best ...	Four Winds Field - Sou...	2009-04-02 10:16:20	9687	53493	412
28564292	tmj_ukc_retail	TMJ-UKC Retail Jobs	Follow this account for geo-targeted Retail job t...	Cardiff	2009-04-03 09:42:13	0	173	137
28652066	GVIrish	Gerald Irish	Senior Software Engineer @ Microsoft Opinions ...	Arlington, VA	2009-04-03 17:02:07	30957	245	560
28815243	epouvantail	John	Baseball, music, films. #cufc	Northern England	2009-04-04 11:49:28	8591	1510	1372
29108008	3002XNA	Chad Schobert, O.D.	Former fundamentalist trying to stop the GOP's ...	Idaho	2009-04-05 20:52:26	175702	684	945
29554784	bmarcello	Brandon Marcello	College Football for @247Sports   Previously: Bi...	United States	2009-04-07 17:47:17	9836	38852	2110
30022599	apache14	Bball Punditx	Founder Basketball254 • African Basketball Is T...	• Khwiroro • Kimill City	2009-04-09 13:10:35	1555	2856	2069
30090883	Justinsua	Justin Su'a	Wherever you see consistency, a system is in pl...		2009-04-09 19:01:27	22509	26452	937
30803366	KevinMcCaff	Kevin McCaffrey	Comedian (Letterman/truTV). My album is titled ...	New York City	2009-04-13 00:04:35	72860	9900	978

6. Tweets – data for each tweet scraped based off of specific keywords included in the database.

49 • SELECT \*  
50 FROM tweets;

tweet_ID	tweet_user_ID	tweet_contents	tweet_date_time	tweet_location	tweet_rt_count	tweet_fav_count	tweet_urls	keywords	source
172727374	5167462	The Boston Celtics are searching for a new sale...	2022-11-14 04:05:09	Boston, MA	0	0	THISisAfakeLINKBC.org		1
1592081187224403968	1168169980921339905	NEW JOB ALERT! FC Eindhoven « C...	2022-11-14 05:05:07	None	0	0	https://t.co/O3hP4grYN	SoccerJobs	1
1592096281324838913	1168169980921339905	NEW JOB ALERT! Brisbane Roar FC ...	2022-11-14 06:05:07	None	1	1	https://t.co/O3hP4grYN	SoccerJobs	1
1592111378210455555	1168169980921339905	NEW JOB ALERT! Brisbane City FC ...	2022-11-14 07:05:08	None	0	0	https://t.co/O3hP4grYN	SoccerJobs	1
1592126483518169088	1168169980921339905	NEW JOB ALERT! Paris Saint-Germai...	2022-11-14 08:05:33	None	0	0	https://t.co/O3hP4grYN	SoccerJobs	1
1592141686729236480	1168169980921339905	NEW JOB ALERT! Nashville Soccer Cl...	2022-11-14 09:14:57	None	1	2	https://t.co/QulHyref5y	FootballJobs	1
1592159151152857089	1045280698238676993	Job Opportunity Association: Leicester City P...	2022-11-14 09:16:56	None	0	1	https://t.co/1PEtx2Wcd	FootballJobs	1
1592159650300190721	1045280698238676993	Job Opportunity Association: Exeter City Pos...	2022-11-14 09:20:23	None	0	1	https://t.co/ZssKnkrP3n	FootballJobs	1
1592160519754252289	1045280698238676993	Job Opportunity Association: Stoke City Pos...	2022-11-14 09:28:22	None	5	9	https://t.co/3KmqlHEJO8	FootballJobs	1
1592162528280608770	1045280698238676993	Job Opportunity Association: Swansea City P...	2022-11-14 09:39:23	None	0	2	https://t.co/mc1HBH4ZqJ	FootballJobs	1
1592165299629195271	1045280698238676993	Job Opportunity Association: In Netherlands ...	2022-11-14 09:54:18	None	0	7	NO URLS	FootballJobs	1
1592169053749006336	1045280698238676993	Job Appointment Delighted for Lee Baxter a...	2022-11-14 11:00:02	None	2	2	https://t.co/cYC3OZH0vb	FootballJobs	1
1592185596788760577	1372641309484331013	Job opportunity! Swansea City (@SwansOfficia...	2022-11-14 13:24:08	None	1	1	https://t.co/vEPpaNfgn0	BaseballJobs	1
1592221861857091585	63135225	Director, Game Presentation - @RaysBaseball (...)	2022-11-14 13:42:02	None	0	0	https://t.co/jZ6h7r7wWd	Job Alert MLB	1
1592226367684235264	982292682641936385	New Job Alert @MLB is looking for a Senior ...	2022-11-14 13:42:15	None	0	0	https://t.co/0npRyCzGp	Job Alert MLB	1
1592226401641299970	982292682641936385	New Job Alert @MLB is looking for a Vice Pr...	2022-11-14 13:42:15	None	0	0	https://t.co/FKsq7PNbTv	BaseballJobs	1
1592226421400813568	982292682641936385	New Job Alert @MLB is looking for a Tech F...	2022-11-14 14:33:09	None	1	2	https://t.co/3FO8c0Tq88	BaseballJobs	1
1592239228926431232	63135225	Peoria Sports Complex Field Maintenance Super...	2022-11-14 17:27:34	None	0	0	https://t.co/HwmcZq1So	FootballJobs	1
1592283124406562818	63135225	Field Maintenance/Crew Member - Salt River Fie...	2022-11-14 17:27:36	None	0	0			
1592283130203111426	63135225	Manager, Premium Partnerships - @Jets (Floria...							

7. Tweet\_mentions – all mentioned user ids from scraped tweets and the tweet ID and user ID of the tweeter.

49 • SELECT \*  
50 FROM tweet\_mentions;

mention_row_ID	source_tweet_ID	source_user_ID	mentioned_user
1009	1600886185198759937	63135225	No Mentions
1010	1600882529695059968	63135225	No Mentions
1012	1600832622757695488	146082269986...	No Mentions
1014	1600634595531100160	156950291001...	PBSCCS
1016	1600624981204905984	143921563463...	MLB
1017	1600624978604408832	143921563463...	Pirates
1018	1600611384223764480	63135225	Cubs
1019	1600607855060856832	63135225	No Mentions
1022	1600594640151146496	63135225	astros
1023	1600591864146821120	2203526911	No Mentions
1024	1600590366033731584	63135225	Brewers
1025	1600575143528771584	63135225	Brewers
1026	1600575138218795008	63135225	Brewers
1027	1600572863223840827	996112653796...	MLB
1028	1600567969155022848	63135225	Reds
1029	1600567963505287168	63135225	No Mentions
1030	1600566072914345985	63135225	No Mentions
1031	1600556506457714689	63135225	Reds
1033	1600541663998640128	63135225	No Mentions
1034	1600539645703786502	63135225	No Mentions
1035	1600530597335953410	63135225	No Mentions

Personal Statement:

My knowledge of Twitter API, BeautifulSoup, HTML, Python, SQL, and many more have significantly improved, and the database is something I am proud of. I hope to continue this project as I outlined over the winter break and into the future.

The following pages are code PDFs for reference. In order Twitter Scrape, Teamwork Scrape, Teamwork Refreshes, Linkedin Scrape