

Job Analytics with Linkedin Data





TEAM MEMBERS

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AIM

To Scrape the Linkedin Website and
Analayze the data while creating a Dashboard

CHALLENGES WE FACED !!!

- 01** learning web-scraping to extract our data.
- 02** Dealing with the LinkedIn Pagination Problem.
- 03** Data Cleaning , Analyzing it and Generating Insights with the Help of Dashboard .



TOOLS & TECHNOLOGY USED

Jupyter Notebook

Sql Workbench

Ms Excel

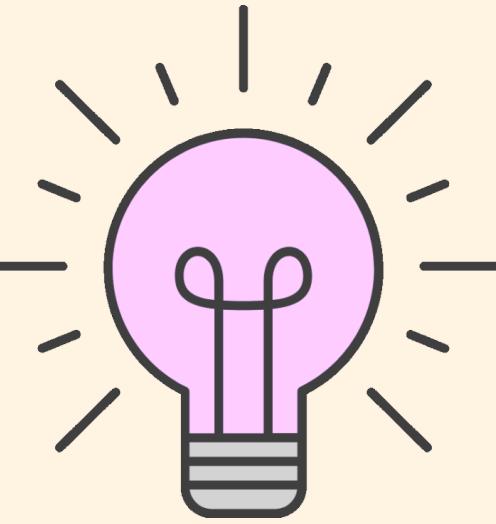
Python

Selenium Web-Scraping

Pandas & Time Libraries



APPROACH



**STEP 1: Web Scrapping using Selenium and
Extracting following Information.**

- Designation
- Industry
- Linkedin followers
- Applicants
- Location
- Company
- Level for that job
- Involvement-the nature of the job
- Employees count



STEP 2: Scraping the data and converting it into a dataset

Jobs in India
373,397 results

Business Development Associate
BYJU'S
India (Remote)
Your profile matches this job
12 minutes ago

Business Development Associate
BYJU'S
Hubli, Karnataka, India (On-site)
Your profile matches this job
7 hours ago

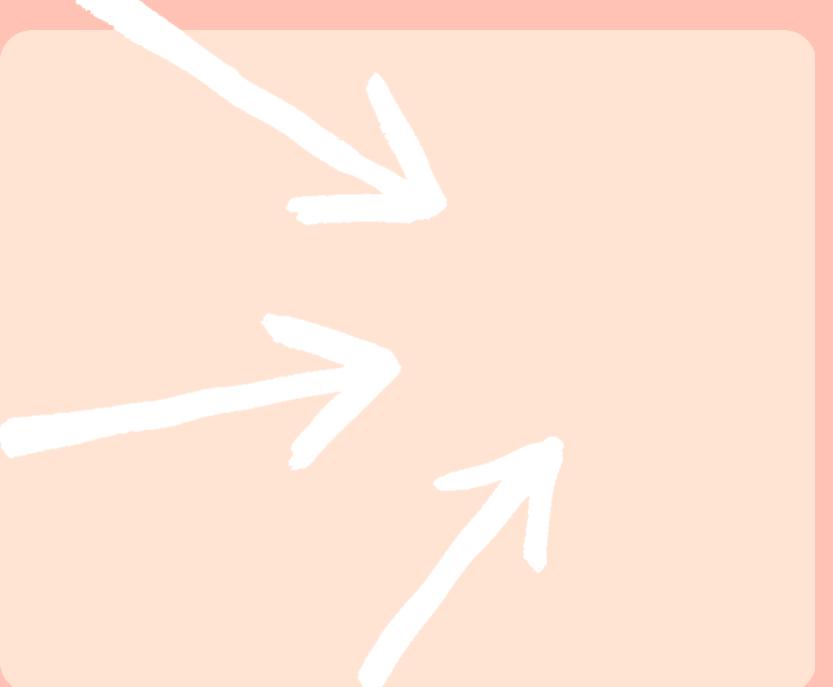
Business Development Associate
PwC

Business Development Associate
BYJU'S - India (Remote) 12 minutes ago - 23 applicants

Full-time
10,001+ employees
Ekta kumari is hiring for this job
See how you compare to 24 applicants. [Try Premium for free](#)

Your profile matches this job

Apply **Save**



title_list	company_name	follower	job_type	employee	location	applicant
Student Counselor	AIMS Education	963 followers	Full-time	51-200 employees	Kochi, Kerala, India	63 applicants
Inside Sales Representative	Kindly (YC W22)	17,357 followers	Full-time	11-50 employees	Bengaluru, Karnataka, India	64 applicants
Principal	Rathinam College of Arts and Scien	4,581 followers	Full-time	501-1,000 employees	Coimbatore, Tamil Nadu, India	31 applicants
Java Application Developer	Uplers	718,503 followers	Full-time & Mid-Senior level	1,001-5,000 employees & IT Services and IT Consul	Gurugram, Haryana, India	67 applicants
Customer Service Associate-Query Management	Accenture in India	1,531,446 followers	Full-time & Entry level	10,001+ employees & IT Services and IT Consulting	Bengaluru, Karnataka, India	23 applicants
Senior Demand Planner	not found	not found	Full-time	Anupam Aishwarya is hiring for this job	Greater Bengaluru Area	173 applicants
Sales And Marketing Specialist	not found	not found	Full-time	Bikash Banerjee is hiring for this job	Bhagalpur, Bihar, India	2 applicants
Sales Coordinator	not found	not found	Full-time	Kaustubh Rane is hiring for this job	Mumbai, Maharashtra, India	not found
Personal Banker	Subham-de-Labs®	6,437 followers	Full-time	1-10 employees	Bengaluru, Karnataka, India	not found
Associate	Ford Motor Company	3,749,253 followers	Full-time & Entry level	10,001+ employees & Motor Vehicle Manufacturing	Chennai, Tamil Nadu, India	196 applicants



Index	Designation	Company_Name	Linkedin_Followers	Involvement	Levels	company size	Employees_Count	Industry
1	Account Based Marketing Executive	Uplers	718560	Full-Time	Mid-Senior level	large	5000	IT Services and IT Consulting
2	Account Based Marketing Executive	Uplers	718519	Full-Time	Mid-Senior level	large	5000	IT Services and IT Consulting
3	Account Based Marketing Executive	Uplers	718590	Full-Time	Mid-Senior level	large	5000	IT Services and IT Consulting
4	Account Internship	SME Consulting Private Limited	43	Full-Time	Internship	small	50	Business Consulting and Services
5	Account internship	Mirats.	815	Full-Time	Internship	small	50	IT Services and IT Consulting
6	Account internship	Splisys	1204	Full-Time	Internship	small	200	IT Services and IT Consulting
7	Admission Tele Counselor	AEC - Abroad Education Consultants	1749	Full-Time	Entry level	small	200	Education Administration Professionals
8	Airport Ground staff	NG Networks	1873	Full-Time	Entry level	small	50	Computer and Network Security
9	Analyst	Barclays	1323372	Full-Time	Associate	large	10001	Financial Services
10	Analyst	Novartis India	121337	Full-Time	Associate	large	10001	Pharmaceutical Manufacturing
11	API Developer	IDFC FIRST Bank	883817	Full-Time	Entry level	large	10001	Banking

Job_Id	Company_Id	Location	Designation	Details_Id
1001	2001	Bengaluru	Account Based Marketing Executive	3001
1002	2002	Greater Delhi Area	Account Based Marketing Executive	3002
1003	2003	Mumbai	Account Based Marketing Executive	3003
1004	2004	Jaipur	Account Internship	3004
1005	2005	Lucknow	Account Internship	3005
1006	2006	Noida	Account Internship	3006

Company_Id	Company_Name	Industry	Employees_Count	Linkedin_Followers
2001	Uplers	IT Services and IT Consulting	5000	718560
2002	Uplers	IT Services and IT Consulting	5000	718519
2003	Uplers	IT Services and IT Consulting	5000	718590
2004	SME Consulting Private Limited	Business Consulting and Services	50	43
2005	Mirats.	IT Services and IT Consulting	50	815
2006	Splisys	IT Services and IT Consulting	200	1204

Details_Id	Involvement	Levels	Total_Applicant
3001	Full-Time	Mid-Senior level	23
3002	Full-Time	Mid-Senior level	196
3003	Full-Time	Mid-Senior level	26
3004	Full-Time	Internship	1
3005	Full-Time	Internship	1
3006	Full-Time	Internship	1

STEP 3

After Cleaning the Dataset.
Converting them into 3 separate Tables

STEP 4 Writing SQL Queries to Analyze the tables in Sql workbench.

```
with cte as (
    select company_name,
    case when Employees_Count <=200 then "small_size Company"
    when Employees_Count between 500 and 1000 then "medium_size Company"
    else "Large_size Company"
    end as Company_size from company a join jobs b
    on a.company_id = b.company_id
    join details c
    on b.details_id = c.details_id
    group by 1
    order by 2 )
    select Company_size,count(*) from cte
    group by 1
    order by 2 desc ;
```



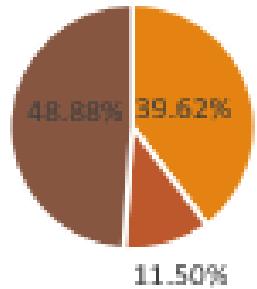
```
SQL File 3* SQL File 3* SQL File 4* SQL File 5* ×
SQL File 5* ×
1 • use linkedln_project;
2
3 /*Comparison of number of jobs across different cities for different level */
4
5 • select location,levels,count(job_id) as Number_Of_Jobs from jobs a join details b
6 on a.details_id=b.details_id
7 group by 1,2
8 order by 3 desc;
9
10
11 /*Generate some insight with respect to number of jobs distribution across various i
12 what is the total number of jobs in Software Industry as compared to Marketing*/
13
14
15 • select Industry,count(job_id) as Num_Of_Jobs from company a join jobs b
16 on a.company_id=b.company_id
17 group by 1
```

DASHBOARD

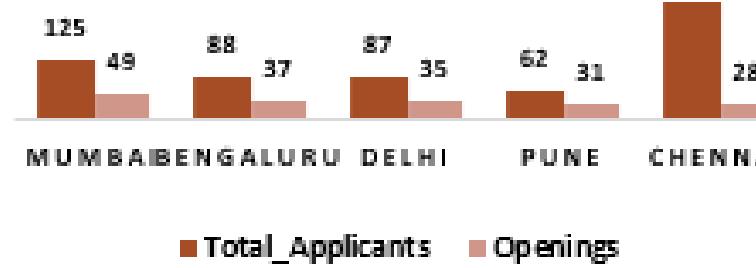
ANALYTICS FROM THE DATA

KPI'S ----> **Applicants/Job : 2.8** **Max-Openings : Sutherland and Barclays**

Fewer jobs in mid-size companies



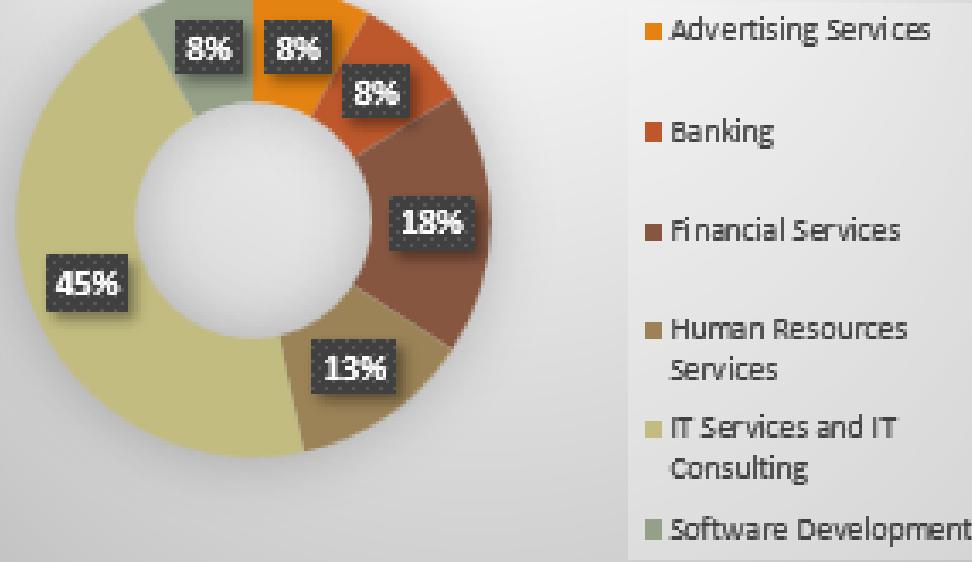
MORE APPLICANTS BUT FEWER JOBS IN CHENNAI



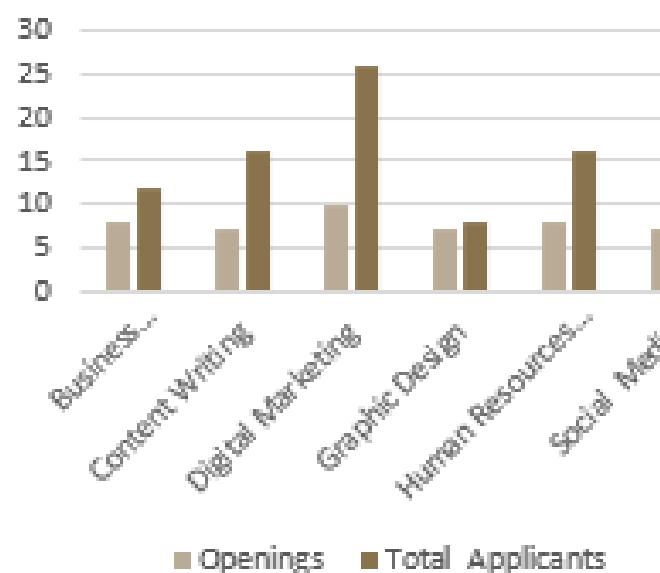
Most entry level jobs are in chennai



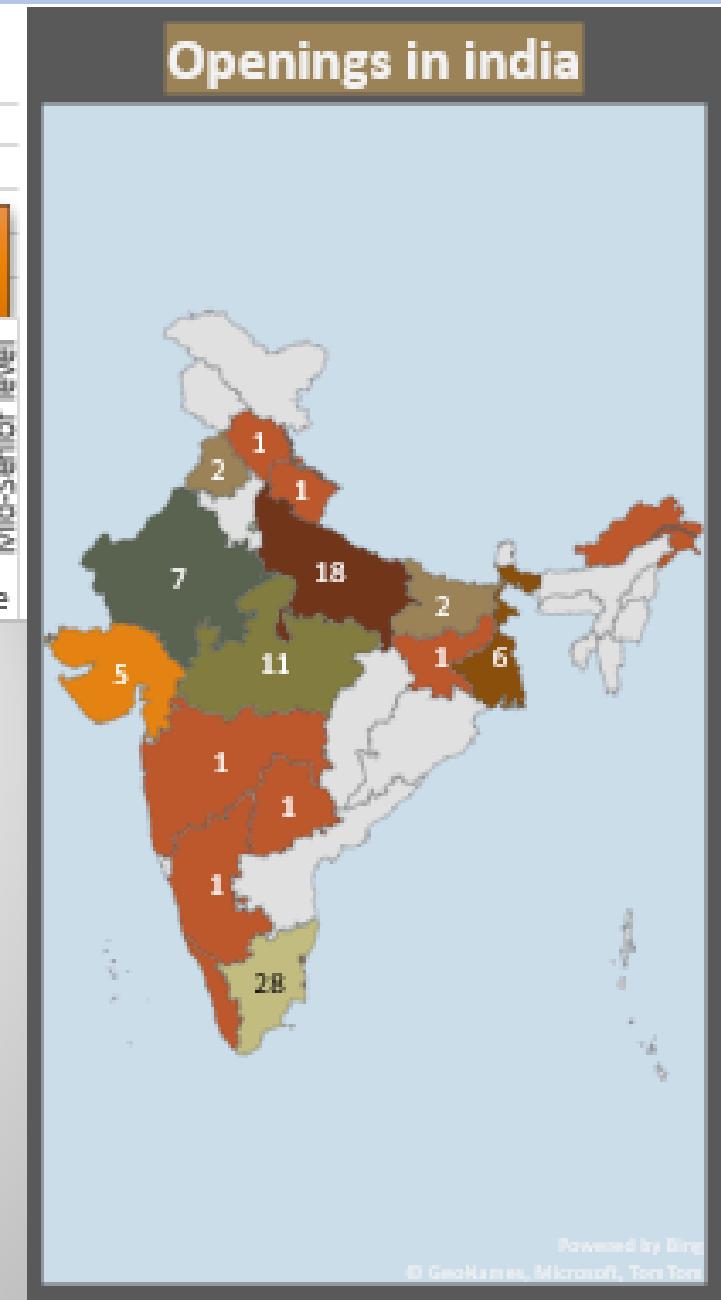
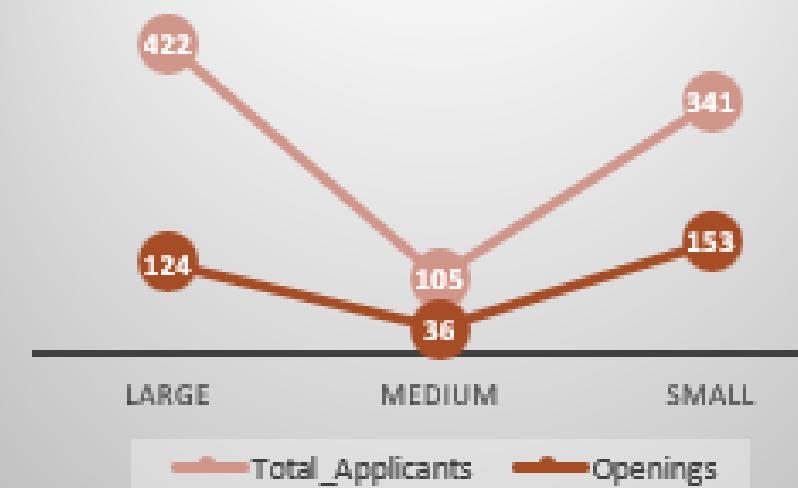
About half of the total openings are in IT industry



Digital marketing has the most opportunities



opening vs applicants



INSIGHTS GENERATED

Most jobs are being posted by small-size Companies but applicants are apparently applying in Large-size Companies

Most applicants are applying in Chennai based companies, but more jobs are there in Mumbai based companies

Top three states with maximum job openings are Tamil Nadu, Uttar Pradesh and Madhya Pradesh.

Significantly higher number of applicants in large and small size companies as compared to medium size companies

Digital marketing has the most opportunities

About half of the total openings are in IT industry

FUTURE SCOPES

- 01** INCORPORATING DATABASE TO OUR CODE
- 02** USE PANDAS TO ANALYZE AND VISUALIZE THE DATA
- 03** USE TABLEAU TO GENERATE DASHBOARD



*Thank
you*

