HR PROJECT

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1 ABOUT THE PROJECT

ABOUT PROJECT

Every company has a HR Department which deals with various recruitment and placement related work of the company. Here in this project we have a huge data set in from which we are going to extract insights which can be useful for HR department to work on and to gain knowledge about the recruitment process of the market. We have extracted many different insights which we will observe further in the report.

2 ABOUT THE DATA

ABOUT DATA SET

The dataset is about the job details data for analytics industry. The companies in the dataset are Hong Kong based companies. Data consist of various job description for various analytics job roles like Data Scientist, Data analyst, Business Intelligence, Machine Learning Engineer, Data Engineer. The Dashboard made at the end is for the HR Team of a company.

The dataset has 6 separate dataset of different days which was combined to make a final data
set. It is a huge dataset with many columns and other attributes

DETAILS OF DATASET

1

JOB TITLE
The Job Title column contains the name of the jobs given by a particular company.

2

COMPANY
The Company column contains the name of the companies who are providing different types of jobs.

3

SALARY
The Salary column contains the salary for various job roles. Salary column has many null values as many companies do not reveal their salaries publicly.

4

JOB DESCRIPTION
The Job Description column contains the detailed description of the job given by particular companies providing the jobs.

5

CAREER LEVEL
The column contains various career levels like Entry Level, middle level, senior level, etc. based on number of years of experience.

DETAILS OF DATASET

6

QUALIFICATION

The Qualification column contains various educational qualification an individual need for a job for example degree, graduation, post graduation, etc.

7

YEARS OF EXPERIENCE

The Years of Experience column contains the minimum eligibility in terms of experience of years for various job roles

8

JOB TYPE

The Job Type column contains the type of jobs required for example full time, internship, part time, contract, etc.

9

COMPANY WEBSITE

In the company website there are various website links where an individual can apply.

10

INDUSTRY

The Industry column is the domain to which a particular job role belongs for example Finance, HR, IT, etc.

DETAILS OF DATASET

11

SEARCH TERM
The Search Term is the column which contains various analytics domain job belongs to for example Data Science, Data Analytics, BI, ML, etc.

12

DATE POSTED
The Date posted column contains the date when a particular job was posted.

13

DATE SCRAPPED
The Date scrapped column contains the date when the particular dataset was scrapped from some recruitment websites..

3

INSIGHTS TO FIND OUT?

INSIGHTS TO BE FOUND?

1 What are total number of jobs available?

2 What are total number of companies providing jobs?

3 What are total jobs for various domains?

4 What are various career level and it's distribution across various jobs?

5 What are distribution of jobs across various analytics fields?

INSIGHTS TO BE FOUND?

6   **Which company is providing highest number of jobs?**

7   **Which domain has the highest number of jobs?**

8   **What are minimum required qualification for job roles?**

9   **What are various job types for different job titles?**

10   **Which are TOP 5 companies with highest jobs?**

4

STEPS FOR CLEANING DATA AND EDA

1. REMOVING UNECESSARY COLUMNS

1 **REMOVING LOWER SALARY RANGE & UPPER SALARY RANGE**
The column is of no use hence we can replace the columns using remove column option of Power BI.

2 **REMOVING DATE SOURCE COLUMN**
The column is of no use hence we can replace the columns using remove column option of Power BI.

2. REMOVING NULL VALUES AND ERRORS

1

REMOVING NULL VALUES AND ERRORS AND MISSING VALUES FROM COLUMNS
There are various null values, errors and missing values in the columns which we can delete using various options in Power BI.

2

REMOVING NOT SPECIFIED VALUES FROM THE COLUMNS
There are many columns which has the value Not Specified values which are of no use and can create problem while changing data types and other calculations hence we will remove that values from the data set.

3. CHANGING DATA TYPES

1

CHANGING DATA TYPE OF YEAR OF EXPERIENCE
The column was having a string data type hence we can change it to whole number using change data type option.

2

CHANGING DATA TYPE OF DATE COLUMNS
The data formats were in string type hence we have changed it to date type using change data type option

4. REPLACING VALUES

1

REPLACING VALUES IN EXPERIENCE COLUMN
The Experience table was having a value -1 which was suppose to be 1 so changed the value -1 to 1 using Replace Value option.

2

REPLACING VALUE IN QUALIFICATION COLUMN
The Qualification column has two qualification name Non-Degree Tertiary and Non Degree Tertiary so we can replace Non Degree Tertiary with Non-Degree Tertiary as they represent same qualification.

3

JOB TYPE
The Job Type column contains the type of jobs required for example full time, internship, part time, contract, etc.

5. CREATING DATE TABLE USING M LANGUAGE

1 **CREATING DATE TABLE USING M LANGUAGE**
We need a date table to perform date operations hence we can create Date Table using the following code.

	Structure			Calendars	Relationships		Calculations	

Date	Year	QuarterOfYear	MonthOfYear	DayOfMonth	DateInt	MonthName	MonthInCalendar	QuarterInCalendar	DayInWeek	DayOfWeekName	WeekEnding	Week Number	MonthnYear	QuarternYear
01 August 2021	2021	3	8	1	20210801	August	Aug 2021	Q3 2021	6	Sunday	01 August 2021	31	20210800	202103
02 August 2021	2021	3	8	2	20210802	August	Aug 2021	Q3 2021	0	Monday	08 August 2021	32	20210800	202103
03 August 2021	2021	3	8	3	20210803	August	Aug 2021	Q3 2021	1	Tuesday	08 August 2021	32	20210800	202103
04 August 2021	2021	3	8	4	20210804	August	Aug 2021	Q3 2021	2	Wednesday	08 August 2021	32	20210800	202103
05 August 2021	2021	3	8	5	20210805	August	Aug 2021	Q3 2021	3	Thursday	08 August 2021	32	20210800	202103
06 August 2021	2021	3	8	6	20210806	August	Aug 2021	Q3 2021	4	Friday	08 August 2021	32	20210800	202103
07 August 2021	2021	3	8	7	20210807	August	Aug 2021	Q3 2021	5	Saturday	08 August 2021	32	20210800	202103

5 VISUAL ANALYTICS AND FINDINGS

SUMMARY OF DATA

Total number of jobs

4758

Total companies

1414

Total industry

51

There are different jobs available and various companies and industries. The summary below shows the Total summaries.

Total Career Level
3

Total analytics field
5

Total Job Types
35

COMPANY AND DOMAIN WITH HIGHEST NUMBER OF JOBS

HKT and Michael Page are the companies with highest number of Job Titles. They both have 25 jobs.

Human Resources Management/Consultancy is the domain with highest number of jobs, with 482 different jobs.

TOP 5 COMPANIES AND TOTAL JOBS

RANK	NAME OF THE COMPANIES	TOTAL JOBS
1	IT Solutions Limited	43
2	Robert Walters (HK)	40
3	Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI)	37
4	Manpower Services (Hong Kong) Limited	31
5	Pinpoint Asia Limited	29

CAREER LEVEL

Total Career Level

3

Career level is the type of job work you are going to get according to years of experience you have.

There are three types of Career Level that are:

1 **Entry Level Jobs**

Entry level jobs are the job level for fresher's or people entering a new domain.

1 **Middle Level Jobs**

Middle level jobs are the job level for the people with some years of experience in a particular domain.
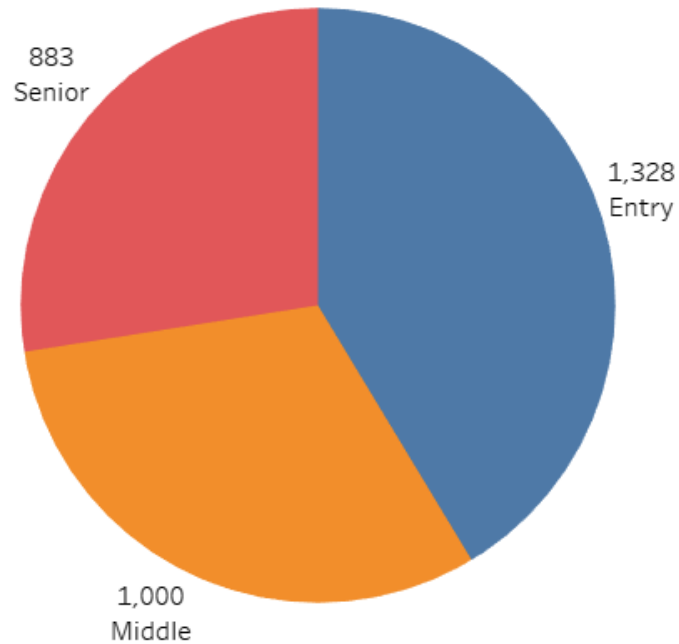
1 **Senior Level Jobs**

Senior Level jobs are the job level for the people who have many years of experience in particular domain and they can work for higher job post like manager, etc.

VARIOUS JOB TYPES FOR DIFFERENT JOB TITLES

883
Senior

1,328
Entry

1,000
Middle

KEY INSIGHTS

There are various career level according to requirement of the job. Career level depends upon the years of experience of an individual.

According to the visual Entry Level Jobs shares 35.22% of job share. Middle Level Jobs has the highest shares with 51.24%. Senior Level Jobs has 13.54%.

Companies has various job types for various job titles.

ENTRY LEVEL JOBS

Company with highest number of Entry Level job is China Mobile Hong Kong, with 10 Entry Level Jobs.

Education industry has highest number of Entry Level job, with 10 entry level jobs.

MIDDLE LEVEL JOBS

Company with highest number of Middle Level job is Ambition, with 9 Middle Level Jobs.

Accounting/Audit/Tax services has highest number of Middle Level job, with 17 Middle level jobs.

SENIOR LEVEL JOBS

Company with highest number of Senior Level job is A.S. Watson Retail (HK) Limited , with 5 Senior Level Jobs.

Banking industry has highest number of Senior Level job, with 6 Senior level jobs.
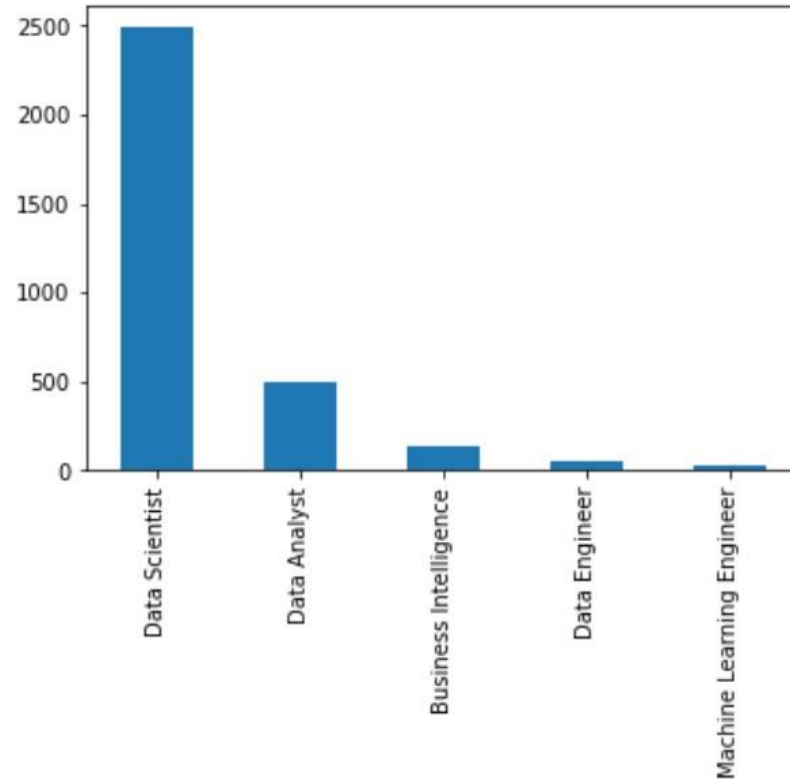
JOB ROLES LEVEL

Total Analytics field

5

There are five types of Career Level that are:

1. Data Scientist Jobs

2. Data Analyst Jobs

3. Data Engineer Jobs

4. Business Intelligence Jobs

5. Machine Learning Engineer Jobs

JOB ROLE ANALYSIS

Data Science
2490
Data Analyst
502
BI
137
Data Engineer
55
ML Engineer
27

KEY INSIGHTS

From the above graph we can observe that the **Data Scientist** has highest number of job roles with **2490jobs** and **Machine Learning Engineer** has least that is **27 jobs**. Second highest is **data analyst** with **502 job roles**. **Business Intelligence and Data Engineer** are close with **137**and **55** job roles.

COMPANY WISE INSIGHTS

IT solutions Limited is the highest job opening in data science role.

Protivi Hong Kong is the highest in data analyst role.

Many industries has only single job requirement in data engineer job role.

Many industries has only single job requirement in data engineer job role.

Many industries has only single job requirement in business intelligence job role.

KEY INSIGHTS

Most of the companies prefer Data Scientist and Data analyst jobs because rest of the job roles are covered in both the job roles

DOMAIN WISE INSIGHTS

Information Technology domain is the highest which has **625** job opening in data science job role.

Human Resources/Consultancy domain is the highest which has **137** job opening in data analyst job role.

Information Technology domain is the highest which has **17** job opening in data engineer job role.

Information Technology domain is the highest which has **9** job opening in machine learning engineer role.

Human Resources/Consultancy domain is the highest which has **22** job opening in business intelligence role.

ENTRY LEVEL WISE INSIGHTS

Data Scientist has 1033 entry level jobs.

Data Analyst has 214 entry level jobs

Data Engineering has 22 entry level jobs

Machine Learning Engineering has 8 entry level jobs.

Business Intelligence has 51 entry level jobs.

MIDDLE LEVEL WISE INSIGHTS

Data Scientist has 785 middle level jobs.

Data Analyst has 147 middle level jobs. Data

Engineering has 18 middle level jobs.

Machine Learning Engineering has 12 middle level jobs.

Business Intelligence has 38 middle level jobs.

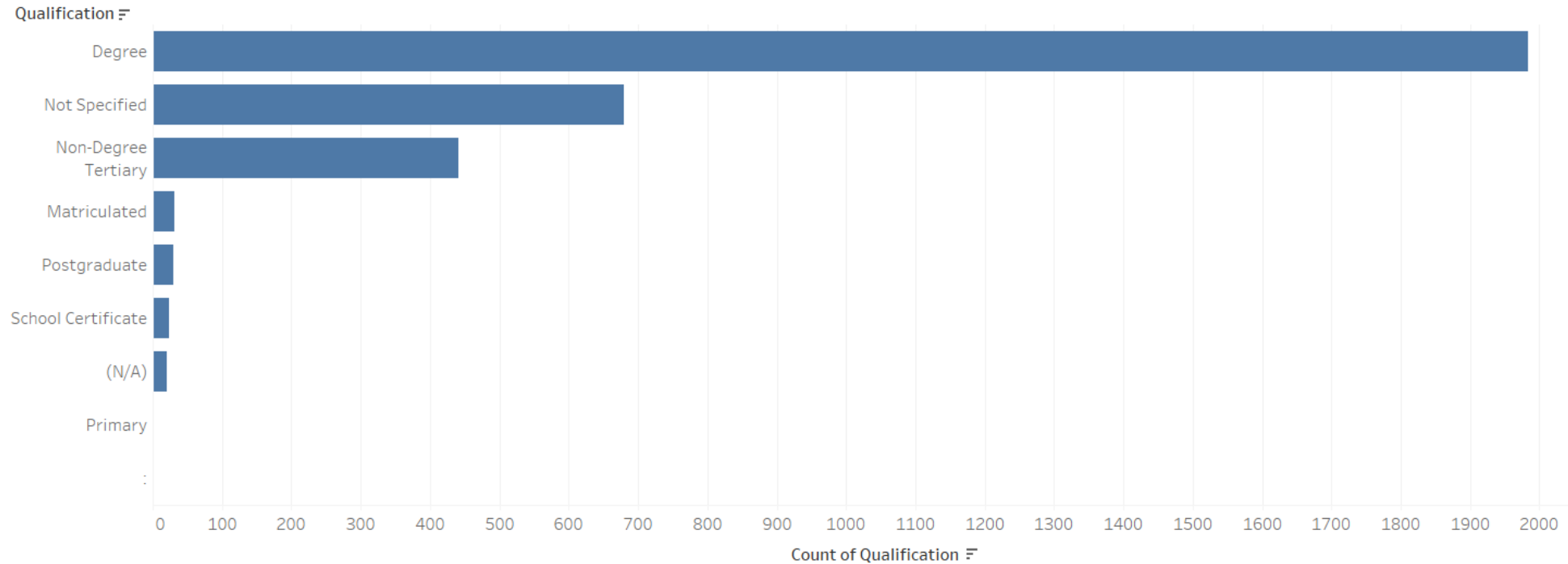# SENIOR LEVEL WISE INSIGHTS

Data Scientist has 672 senior level jobs.

Data Analyst has 141 senior level jobs.

Business Intelligence has 48 senior level jobs, followed by Data Engineer having 15 and
Machine Learning Engineer having 7 jobs respectively.

REQUIRED QUALIFICATION FOR JOBS

Many people takes a degree or post graduation degree for jobs. Lets study the distribution of various companies across various qualification.

KEY INSIGHTS

From the above visual we can observe that the more companies require a Degree for various roles. Comparison to Non-Degree its not even half of the Degree. There are also other qualification involved such as Matriculated, Post Graduation and School Certificates.

6   KEY INSIGHTS

INSIGHTS TO BE FOUND?

1 There are **3211 jobs** available for Data Science & 1547 for UI/UX.

2 **1223 & 692 companies** are providing jobs for Data Science & UI/UX respectively.

3 There are around **51 & 46 different domains** in which jobs are provided for DS & UI/UX respectively

4 **HKT** and **Michael Page** are the companies which has highest job opening.

5 **Human Resources Management/Consulting** is the domain which has on an average highest number of jobs.
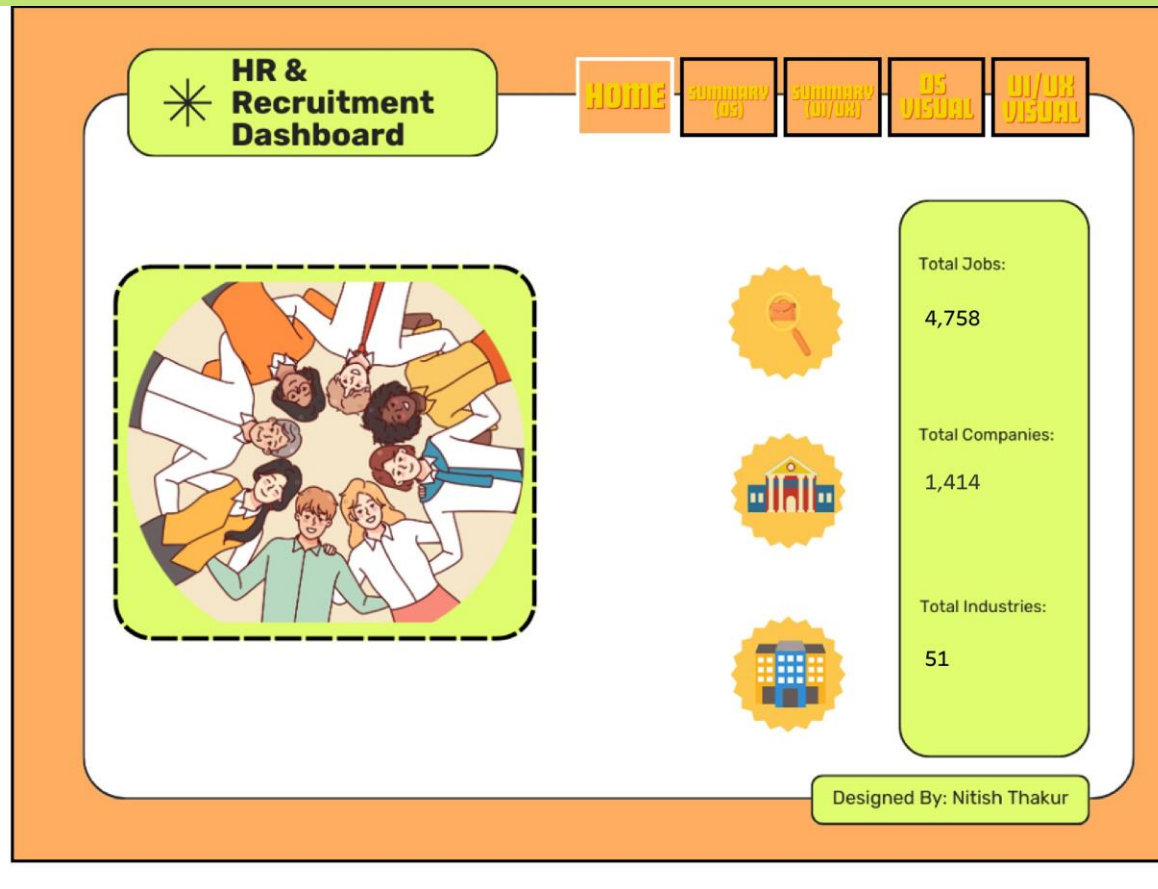
INSIGHTS TO BE FOUND?

6   **Entry level jobs has the highest openings.**

7   **Data Science has highest job titles followed by Data analyst.**

8   **ML Engineer has the least job titles.**

9   **Most companies prefer individuals with degree for their job roles**

10   **Most job types are temporary contract based.**
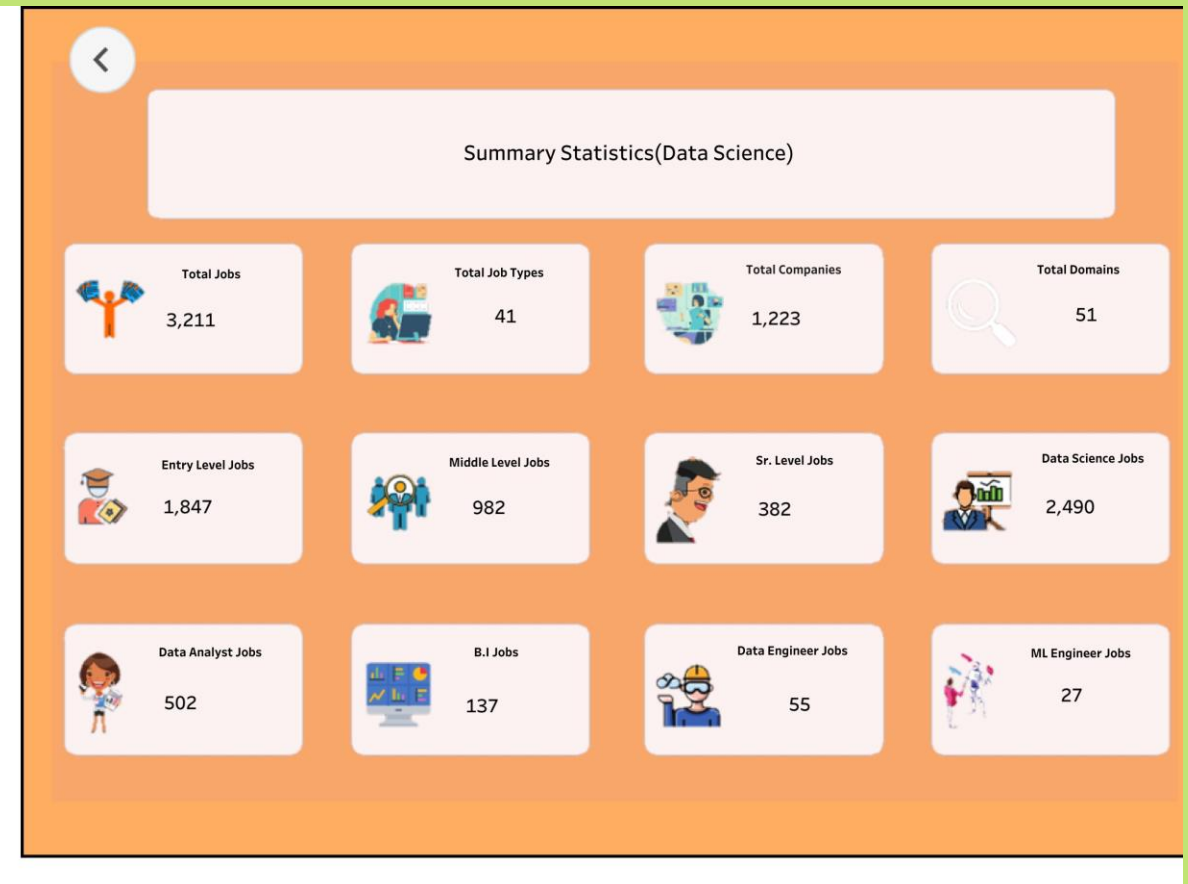
7 DASHBOARD

DASHBOARD PAGES VIEW

HOME PAGE OF THE DASHBOARD

SUMMARY STATISTICS PAGE

THANK YOU

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