POWERBI DATA PROFESSIONAL SURVEY

TOOL USED
Power Bi

SOURCE ATTRIBUTION
Microsoft Power BI Desktop for Business Intelligence Created by [Maven Analytics](), [Chris Dutton](),

INTRODUCTION
This dataset captures the experiences and perspectives of professionals currently working in the data field. Collected from individuals who have transitioned into data roles, it offers a unique snapshot of various factors influencing career paths in data science and analytics. The data includes responses from individuals regarding their career transitions, job satisfaction, challenges faced in breaking into data, preferred programming languages, and demographic information such as age, gender, ethnicity, and education. These insights provide valuable context for understanding the diversity and challenges within the data industry, as well as the factors that contribute to career success and satisfaction.

BACKGROUND & MOTIVATION
The motivation behind collecting this data is to understand the factors influencing career success and satisfaction within the data industry. With the growing demand for data professionals, it's crucial to explore how career paths, industry sectors, and personal experiences shape individuals' success in the field. By examining aspects like job satisfaction, salary expectations, and entry challenges, this dataset offers valuable insights for organizations, educators, and career advisors to better support individuals entering or progressing in data careers. Additionally, it provides a lens through which to analyze diversity trends and the evolving landscape of data professions. I am excited to use Power Bi in creating an insightful dashboard on this project.

DATA COLLECTION

The dataset contains 630 rows and 28 Columns. Key metrics to analyze include Unique ID, Email, Date Taken, Time Taken, Browser, City, Country Referrer, Time Spent , Which Title Best Fits your Current Role?, Did you switch careers into Data? , Current Yearly Salary (in USD) ,What Industry do you work in?, Favorite Programming Language ,How Happy are you in your Current Position? How Happy are you in your Current Position?, Male/Female? ,Current Age, Which Country do you live in? ,Highest Level of Education , Ethnicity etc.

DATASET LIMITATION

- Missing responses, particularly for sensitive information, could affect data reliability.
- The dataset relies on self-reported responses, which may be subject to biases such as social desirability bias or inaccurate recall.

ANALYSIS

Data Preparation

- Download the dataset from the resources section.
- Load the https://tinyurl.com/4e3w53fb dataset into Power BI.

Unique ID	Email	Date Taken (America/New_Yo	Time Taken (America/New_Yo	Browse	OS	City	Country	Referrer	Time Sp	Q1 - Which Title Best Fits your Current Role
62a33c2cbc6861bf3176bec1	anonymous	6/10/2022	8:42						0:02:18	Data Engineer
62a33c8624a26260273822f9	anonymous	6/10/2022	8:43						0:02:10	Other (Please Specify):Analytics Consultant
62a33c91f3072dd892621e03	anonymous	6/10/2022	8:44						0:01:51	Data Analyst
62a33cb6cf25554317300177	anonymous	6/10/2022	8:44						0:02:34	Data Analyst
62a33cb72e54c9003e531c65	anonymous	6/10/2022	8:44						0:01:15	Data Scientist
62a33cd30f8c8599d5af0f8f	anonymous	6/10/2022	8:45						0:01:25	Data Engineer
62a33cd3cf255543173001d9	anonymous	6/10/2022	8:45						0:02:10	Data Analyst
62a33cd8bc6861bf3176c05f	anonymous	6/10/2022	8:45						0:01:27	Data Analyst
62a33ce918134ddc75ce8c30	anonymous	6/10/2022	8:45						0:01:29	Data Analyst
62a33cf30a77c1a77f65baa2	anonymous	6/10/2022	8:45						0:02:31	Data Analyst
62a33d15f408bae018ed370d	anonymous	6/10/2022	8:46						0:03:20	Data Analyst
62a33d1ebae91e4b8b82e707	anonymous	6/10/2022	8:46						0:00:55	Data Scientist
62a33d4624a26260273824c4	anonymous	6/10/2022	8:47						0:01:24	Data Analyst
62a33d5c0f8c8599d5af107c	anonymous	6/10/2022	8:47						0:00:47	Data Analyst
62a33d850f8c8599d5af10cb	anonymous	6/10/2022	8:48						0:01:06	Data Analyst
62a33d9bf8f7561645852496	anonymous	6/10/2022	8:48						0:01:04	Student/Looking/None
62a33dbdd8c00e9f5419cd65	anonymous	6/10/2022	8:49						0:01:05	Student/Looking/None
62a33de124a26260273826b2	anonymous	6/10/2022	8:49						0:01:21	Data Analyst
62a33dedd8c00e9f5419ce2b	anonymous	6/10/2022	8:49						0:01:23	Data Analyst
62a33fbd8c00e9f5419ceda	anonymous	6/10/2022	8:50						0:01:35	Data Analyst
62a33e38f3072dd892621d3	anonymous	6/10/2022	8:51						0:01:25	Data Analyst
62a33e54d8c00e9f5419cfe9	anonymous	6/10/2022	8:51						0:01:47	Data Analyst
62a33e62575fa3a5ae88aabf	anonymous	6/10/2022	8:51						0:02:14	Data Analyst
62a33e63cec54911e9ca4f99	anonymous	6/10/2022	8:51						0:02:21	Data Analyst
62a33e72bae91e4b8b82ea1a	anonymous	6/10/2022	8:52						0:02:07	Data Analyst
62a33e890f8c8599d5af13b9	anonymous	6/10/2022	8:52						0:01:20	Data Analyst
62a33e8bf8d5efcc22f7c79a	anonymous	6/10/2022	8:52						0:01:34	Data Analyst
62a33e90cec54911e9ca5031	anonymous	6/10/2022	8:52						0:01:34	Student/Looking/None
62a33e9df8f756164585277b	anonymous	6/10/2022	8:52						0:01:47	Student/Looking/None
62a33eb6bc6861bf3176c5a3	anonymous	6/10/2022	8:53						0:01:38	Data Analyst
62a33ee0bae91e4b8b82eaec	anonymous	6/10/2022	8:53						0:03:30	Data Analyst
62a33ee80f8c8599d5af14b7	anonymous	6/10/2022	8:54						0:01:37	Data Engineer
62a33efe0a77c1a77f65bf1e	anonymous	6/10/2022	8:54						0:02:08	Data Analyst
62a33f0ef408bae018ed3aeb	anonymous	6/10/2022	8:54						0:03:54	Other (Please Specify):FP&A Analyst
62a33f17f8f7561645852867	anonymous	6/10/2022	8:54						0:02:28	Other (Please Specify):BI Developer
62a33f52bc6861bf3176c72c	anonymous	6/10/2022	8:55						0:01:33	Data Analyst

Data Professional Survey (+)

- Removed five empty columns (Browser, OS, City, Country, Referrer)
- Split columns to replace value in power query
- Perform a calculation to get Average Salary

Dashboard Creation

- Assign the title "Data Professional Survey".
- Use the variable **Exit_Page** as the key filter within the title bar.
- Assign KPI cards for the variables **"Total Amount Of Survey", "Average Age Of Survey Takers"** to summarize the data values.

Create the following visuals:

- Two guage charts to show average **Happiness with Work Balance** and **Happiness with current Position** separately.
- A Stacked bar chart showing average **Salary by Job title**.
- A Treemap chart showing **Country of Survey Takers**.
- A Clustered Column chart with the columns **Unique ID and Favourite Programming language**
- A Pie Chart to show **Average Salary By Gender/ Sex**

RESULTS

- The Guage charts shows the average number of happiness for work balance and current position as 5.74% and 4.27% respectively.
- The preferred programing Language by most Survey Taker is Python.
- Data Scientist has the highest Average salary of 93.79%, followed by Data Engineer with an average salary of 65.09%
- Most of the Survey takers are from the United State with a total count of 261
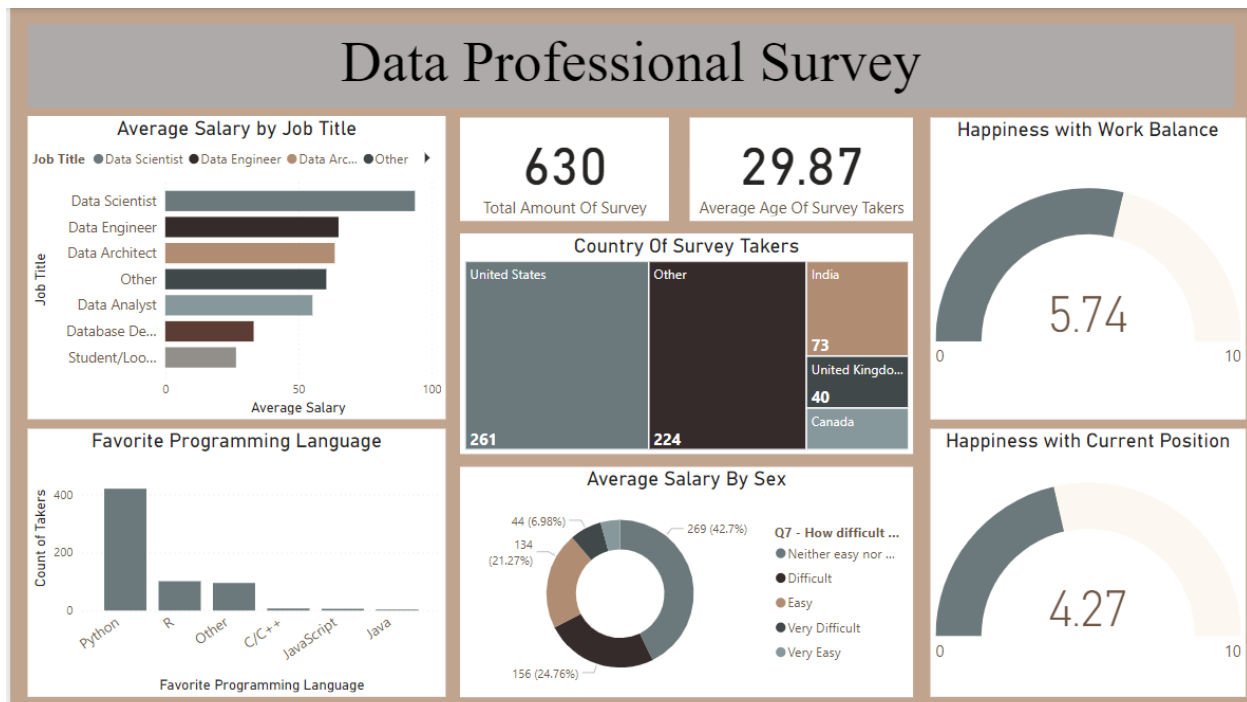
CONCLUSION

This comprehensive dashboard using Power Bi provides a clear overview and comprehensive overview of the career experiences, job satisfaction, and challenges faced by professionals in the data field. By examining key factors such as career transitions, salary expectations, work-life balance, and demographic characteristics, it offers valuable insights into the evolving landscape of data professions. As the demand for data professionals continues to grow, this dataset serves as a resource to guide both individuals seeking to enter the field and organizations looking to attract and retain talent.

REFERENCES

1. Power BI A-Z: Hands-On Power BI Training For Data Science and Data Analytics. Build visualizations and BI reports Created by Kirill Eremenko, SuperDataScience Team.
2. Official Microsoft Power BI documentation for best practices and tutorials.