



Developer Survey Of Stack Overflow

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OUTLINE



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- Introduction
- Methodology
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 - Dashboard
- Discussion
 - Findings & Implications
- Conclusion
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EXECUTIVE SUMMARY



- Goal of Contextualizing and Analyzing Data
- Methodology
 - Data Collection
 - Data Analysis
 - Data Visualization
- Presentation of results
- Discussion of overall findings
- Final conclusion

INTRODUCTION



- The annual Developer Survey conducted by Stack Overflow stands out as the most extensive and inclusive survey of individuals engaged in coding globally.
- It is important to note that the survey results may not uniformly represent every segment of the developer community.
- The survey contributes to the characterization of developers on a global scale.
- The survey encompasses insights from nearly 90,000 developers, providing a significant dataset.
 - Prediction of trends of programming languages
 - Trends of top fields and languages

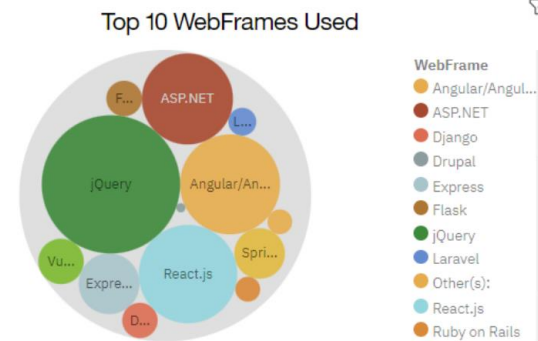
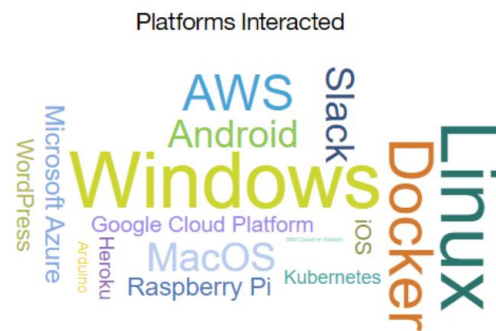
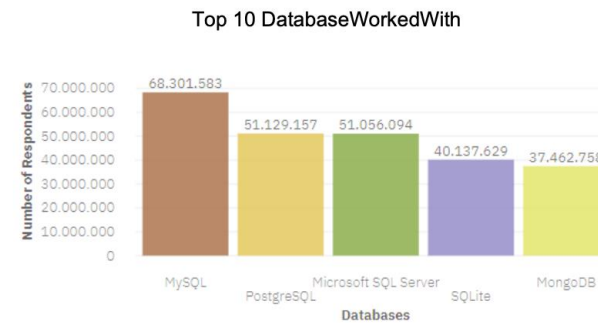
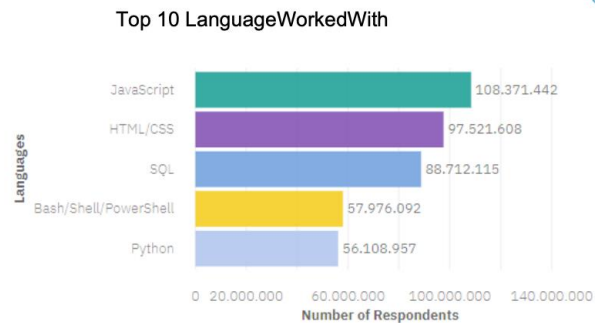
METHODOLOGY



- Web Scraping
- Data Wrangling
- Data Cleaning
- Data Visualization
 - Data visualization using python
 - Visualization using pie, line, bar, scatter and several other type of charts
- Dashboard Creation

RESULTS

CURRENT TECHNOLOGY USAGE

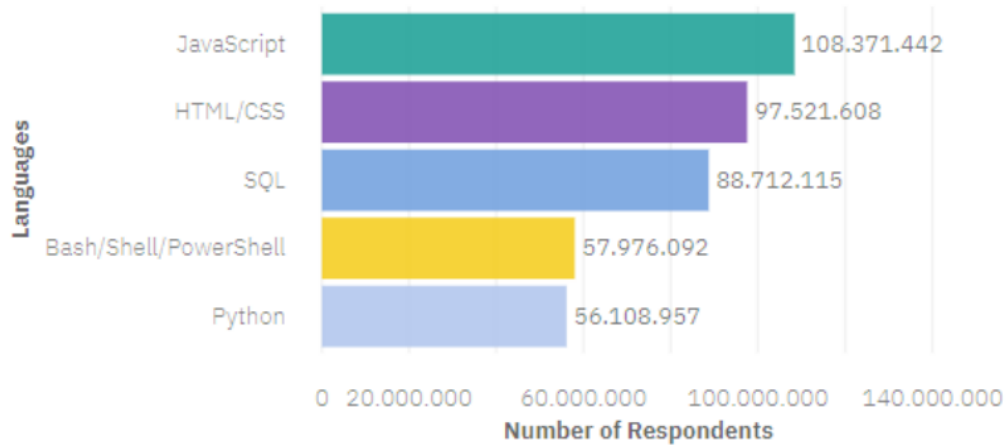


PROGRAMMING LANGUAGE TRENDS

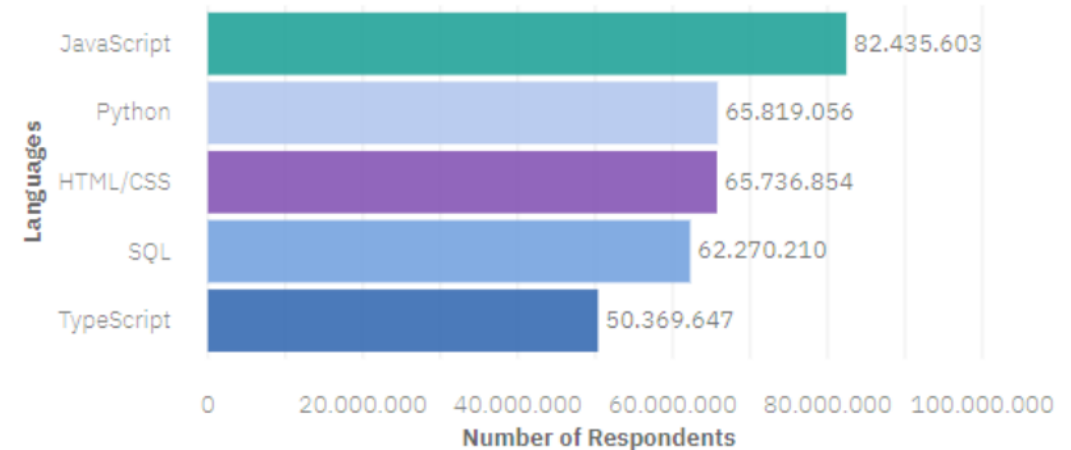
Current Year

Next Year

Top 10 LanguageWorkedWith



Top 10 LanguageDesireNextYear



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Python as the popular and growing
- Javascript is the top one
- Increase of interest in other languages

Implications

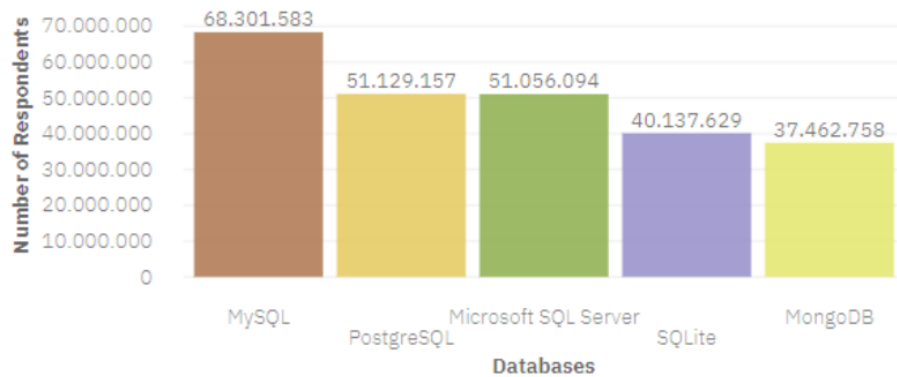
- Hard to learn
- Easy but not feasible in all situations
- Migration to other languages

DATABASE TRENDS

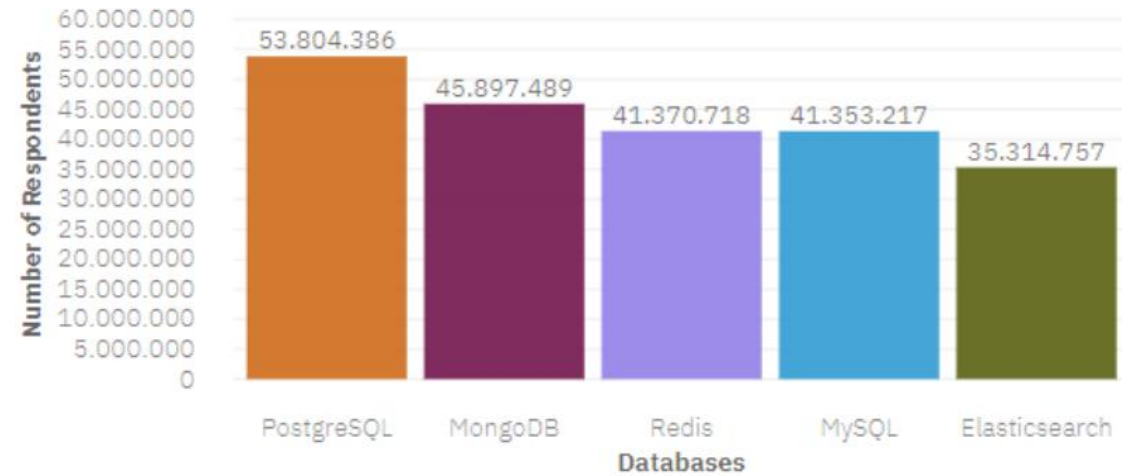
Current Year

Next Year

Top 10 DatabaseWorkedWith



Top 10 DatabaseDesireNextYear



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Mysql is most popular
- Increase interest in Postgres

Implications

- SQL Server lost interest
- Postgres market stablization

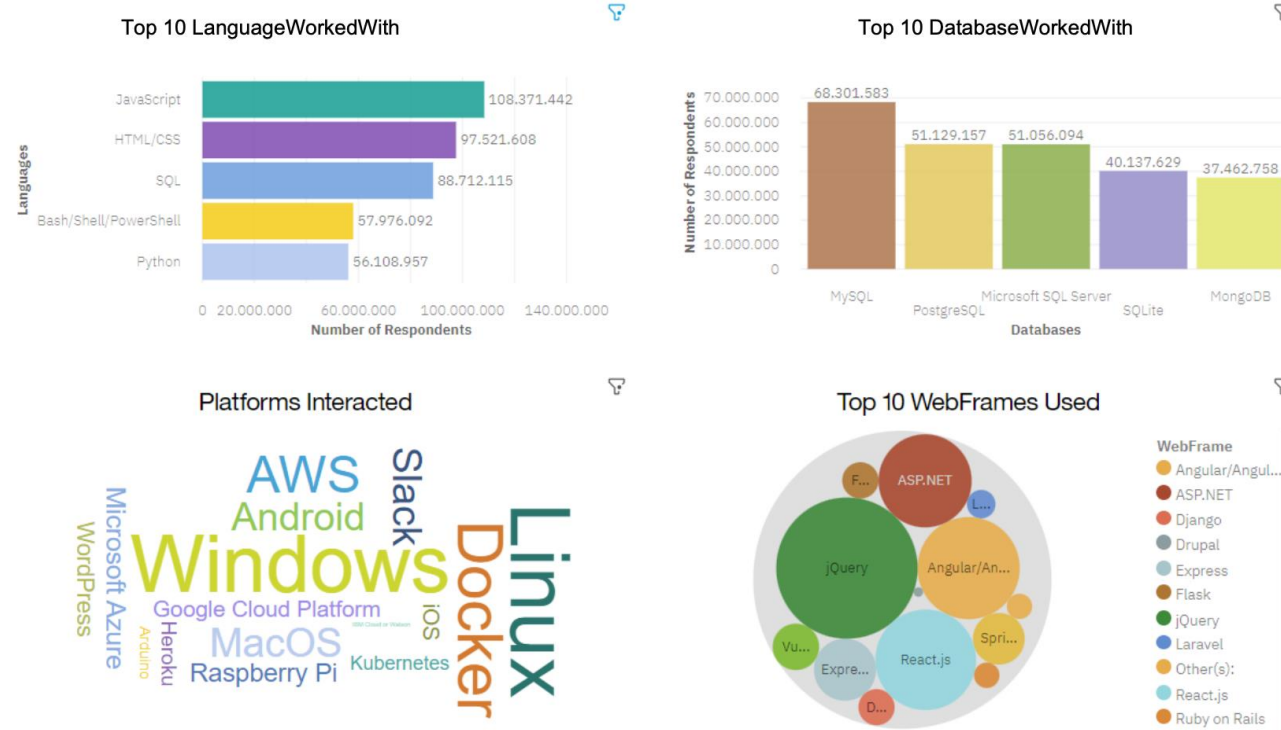
DASHBOARD



<https://github.com/waqasnu/ibm-data-analyst/blob/2796954aa90f55f1e3c616963d47e3294efaef73/waqascs-IBM-Dashboard-Cognos.pdf>

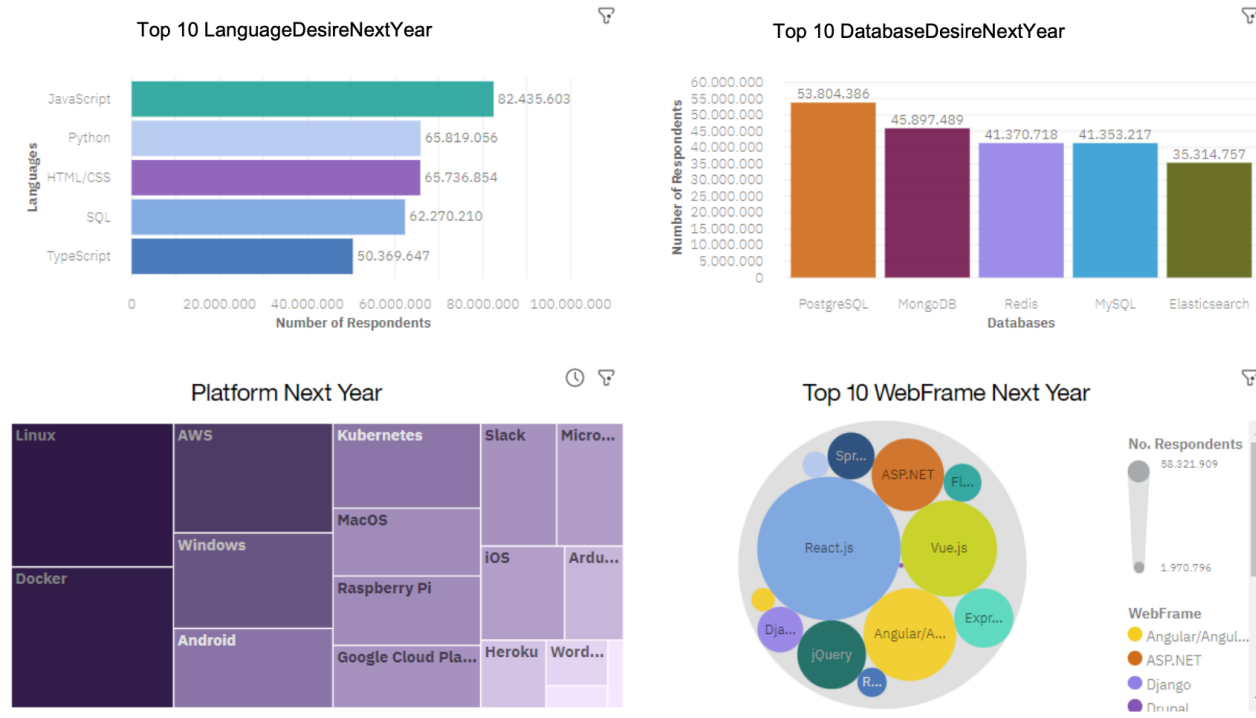
DASHBOARD TAB 1

CURRENT TECHNOLOGY USAGE



DASHBOARD TAB 2

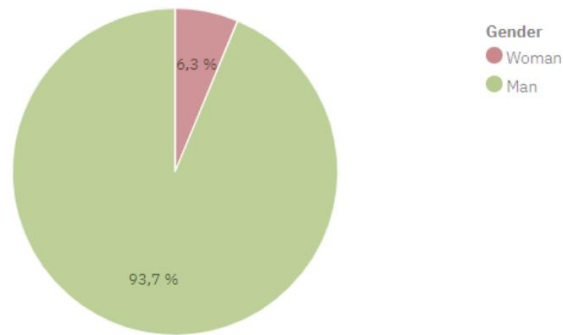
FUTURE TECHNOLOGY TREND



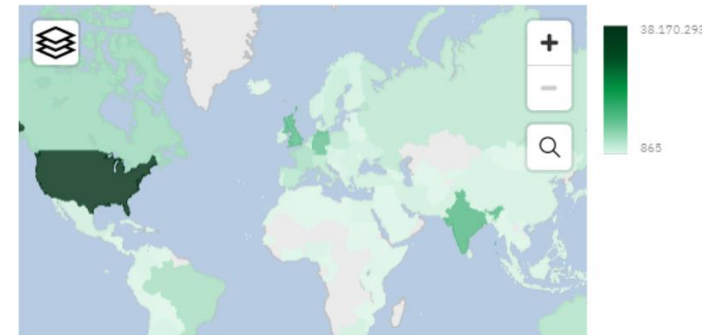
DASHBOARD TAB 3

DEMOGRAPHICS

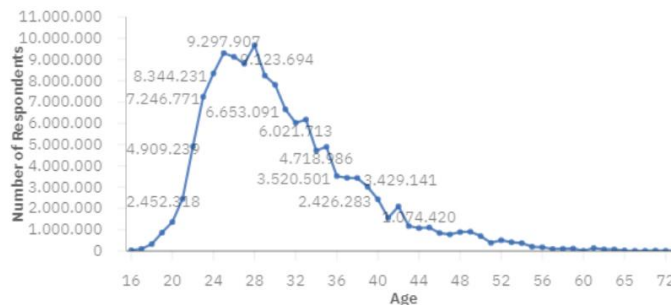
Respondent by Gender



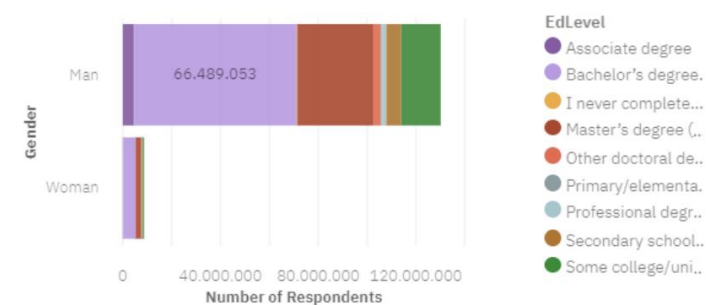
Respondent Locations



Respondent by Age



Formal Education Level / Gender



DISCUSSION



Key Discussion Points:

- Global Developer Snapshot: Survey provides a snapshot of the diverse global developer community.
- Tech Trends in a Decade: Highlights dynamic tech trends over the past 10 years.
- Workplace Dynamics: Insights into online work, collaboration tools, and job satisfaction.
- Challenges & Opportunities: Identifies challenges and opportunities for developers and the industry.
- Top Tech Skills: Pinpoints the most in-demand technical skills in the job market.
- Education Insights: Guides educational institutions on aligning curriculum with industry needs.
- Future Predictions: Informs future predictions for strategic decision-making in the tech sector.
- Call to Action: Encourages stakeholders to utilize insights for positive changes in the developer community.
- A concise overview for impactful discussion based on the survey's key findings.

OVERALL FINDINGS & IMPLICATIONS

Findings

- Developers are mostly male
- They are located in developed countries
- Python and Javascript are most widely used

Implications

- Lower female in programming field
- Less degree holders
- Both languages gaining reputation making others less usable

CONCLUSION



- **Insightful Trends:** Survey spans a decade, offering valuable insights into evolving developer trends.
- **Global Representation:** While not universally representative, the survey gathered responses from nearly 90,000 developers worldwide.
- **Predictive Analysis:** Aiming to predict future developer trajectories and industry directions.
- **Characterization:** Provides a comprehensive characterization of developers on a global scale.
- **Innovation Drivers:** Underscores the pivotal role of developers as innovation drivers in the digital landscape.

APPENDIX

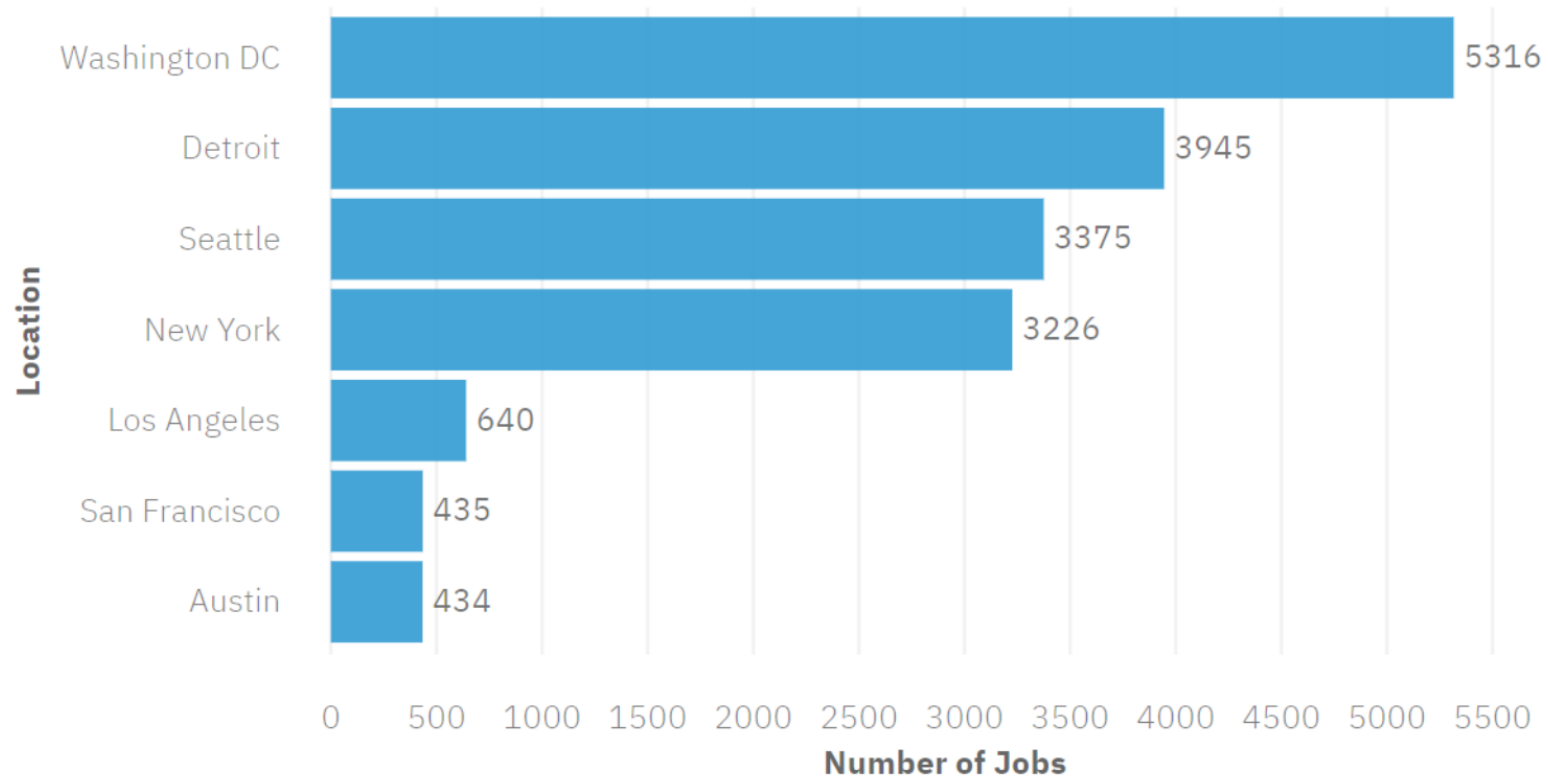


Charts created during whole project

- Pie
- Bar
- Scatter
- Line
- Histogram

And then in the end is the dashboard having two dropdowns

JOB POSTINGS



POPULAR LANGUAGES

