The 2019 Stack Overflow Developer Survey Results Are In

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OUTLINE

- Executive Summary
- Introduction
- Methodology
- Results
  - Visualization – Charts
  - Dashboard
- Discussion
  - Findings & Implications
- Conclusion
- Appendix

EXECUTIVE SUMMARY

- Understanding our data and basic analysis tasks and goals
- Methods and steps of working with data
  - Explore our data
  - Data analysis
  - Data visualization
- Presentation of our results using visualization methods and dashboards
- Discussion of our findings and implications
- Conclusions and result of our analysis

INTRODUCTION

Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of people who code around the world. Each year, we field a survey covering everything from developers' favorite technologies to their job preferences. This year marks the ninth year we've published our annual Developer Survey results, and nearly 90,000 developers took the 20-minute survey earlier this year.

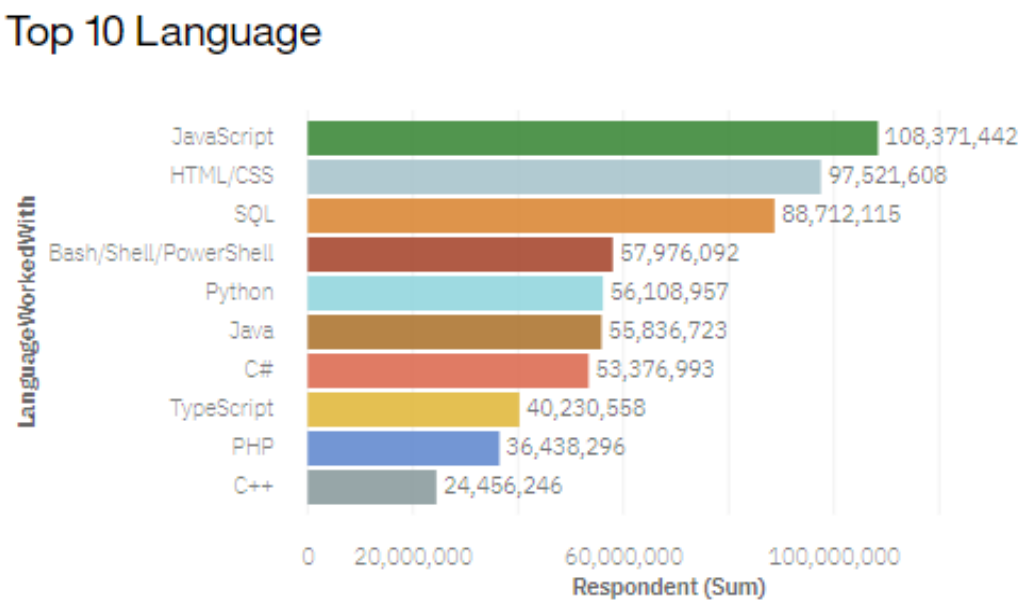
- Despite our survey's broad reach and capacity for informing valuable conclusions, we acknowledge that our results don't represent everyone in the developer community evenly. We have further work to do to make Stack Overflow the welcoming, inclusive, and diverse platform we want it to be, and this is reflected in our survey sample. We are committed to building on steps we've taken in 2018 and improving in this area this year and beyond. Some of these survey results directly guide those efforts.
- To address the characteristics of our data, be sure to check out where we summarize results by country or gender, highlight results for underrepresented racial/ethnic groups, or use survey weighting to correct for demographic skew.
- The dataset comes from the following source: https://stackoverflow.blog/2019/04/09/the-2019-stack-overflow-developer-survey-results-are-in/ under a **ODbL: Open Database License**.

METHODOLOGY

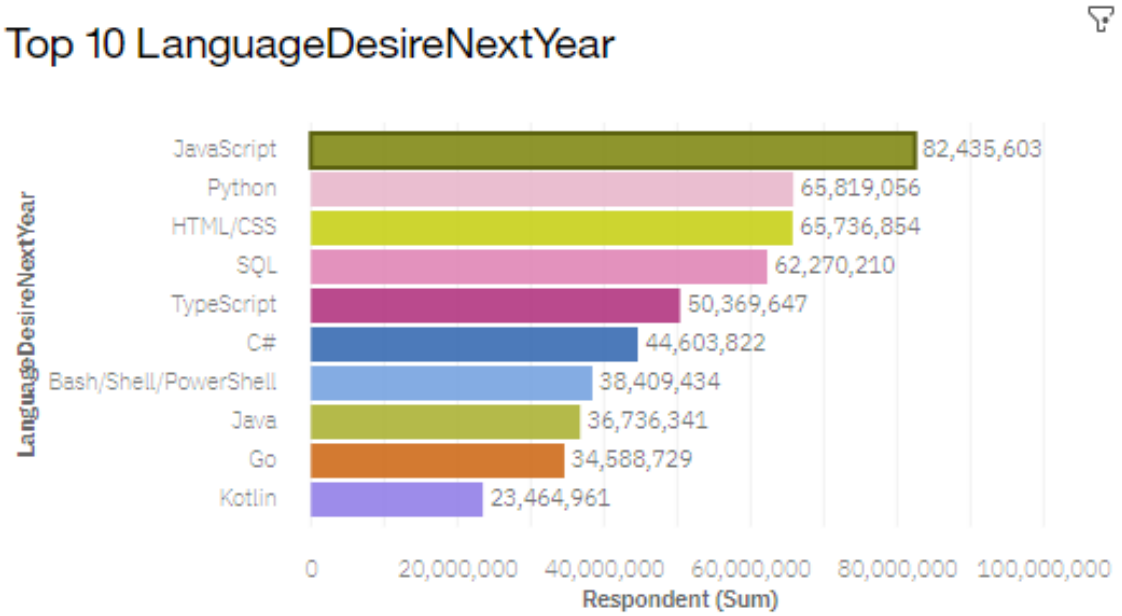
- Explore and collecting data
  - Web scraping
  - API’s
- Data Wrangling
  - Cleaning data
  - Normalizing data
- Exploratory Data Analysis
  - Finding outliers
  - Finding correlation
- Data visualization
- Creating Dashboards

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

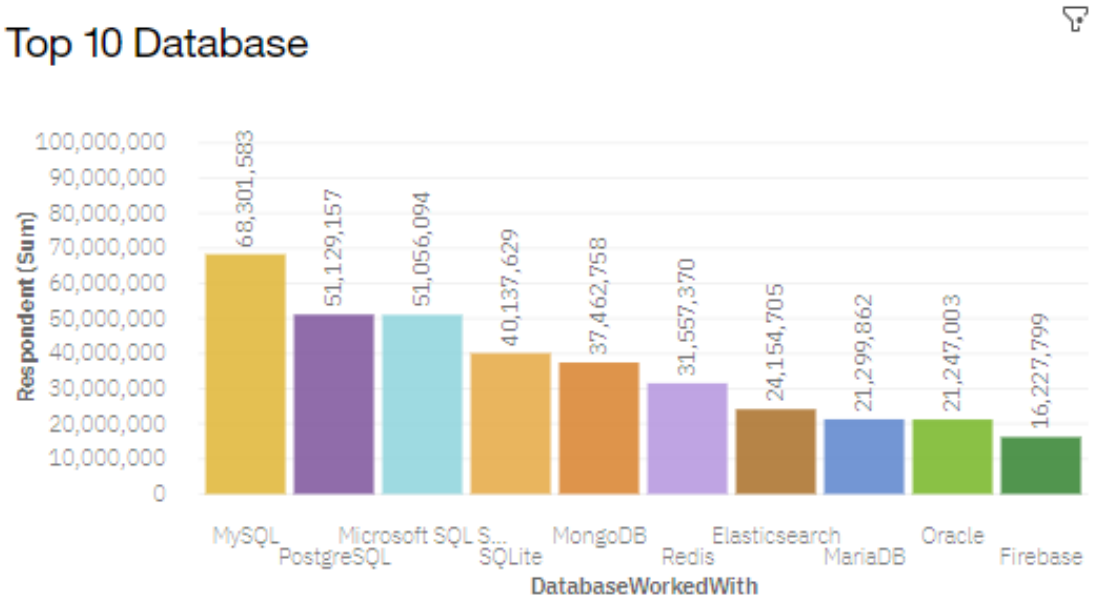
- CURRENT YEAR- JavaScript, the fastest-growing major programming language, ranked first, second is HTML/CSS , and third is SQL
- FUTURE TREND - JavaScript is still ranked first, second is Python, and third one is HTML/CSS

Implications

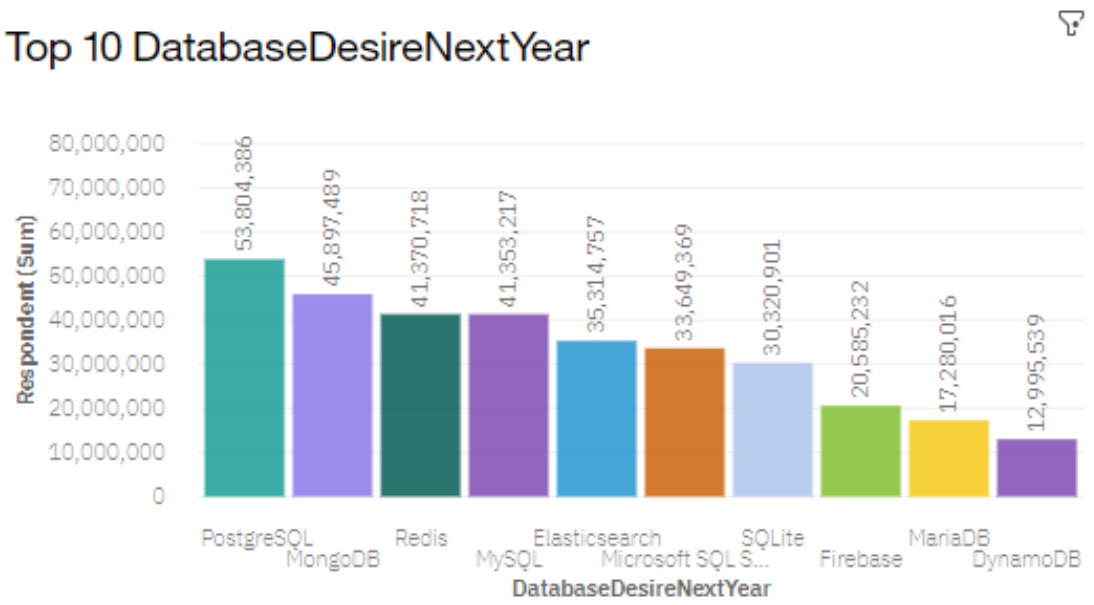
- Possible developers' migration to Python

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Current Year - MySQL is ranked first, second is PostgreSQL, and third one is Microsoft SQL.
- Next year - PostgreSQL Become first, second is MongoDB, and third one is Redis.

Implications

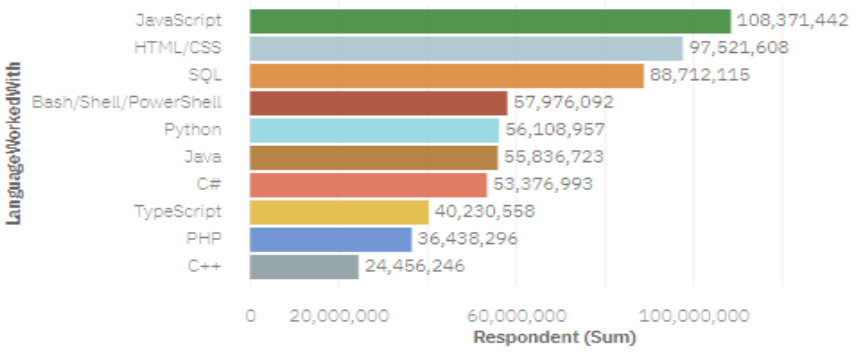
- Need to be ready that Microsoft will take a back seat.

DASHBOARD

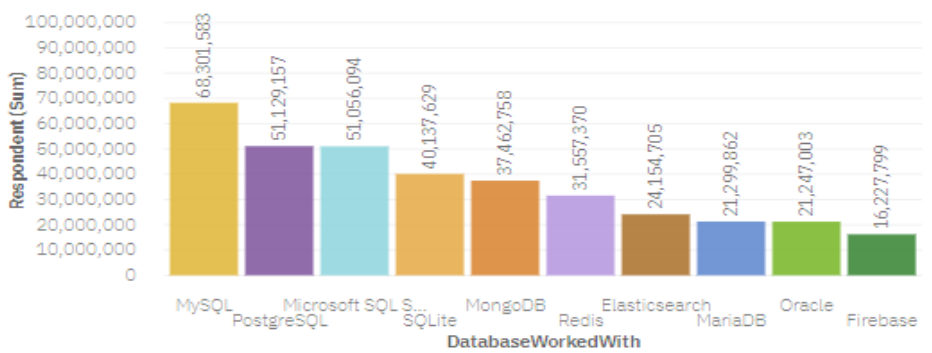
https://dataplatform.cloud.ibm.com/dashboards/67813afa-3309-4f0e-b189-7515fb280872/view/5322e97c2fb800eb0df3c4e407cf7f072b3e7309b7bbd00683807b490a617097f36d1392c82d4b5f88180230f5b94758cc

Current Technology Usage

Top 10 Language

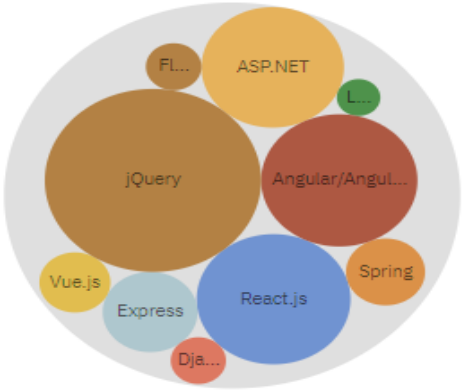


Top 10 Database



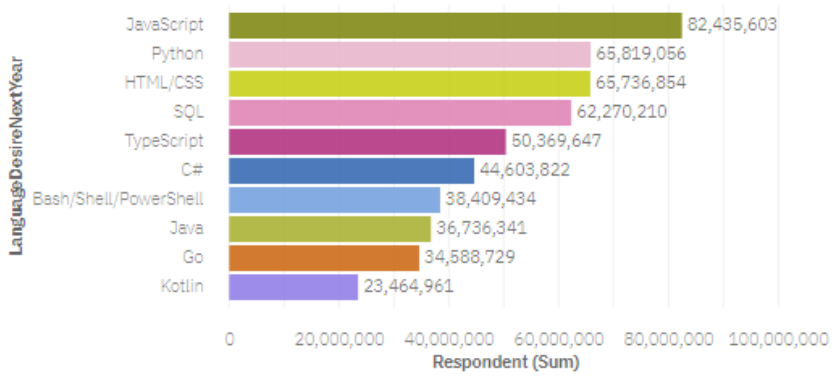
Platform

Top 10 WebFrame

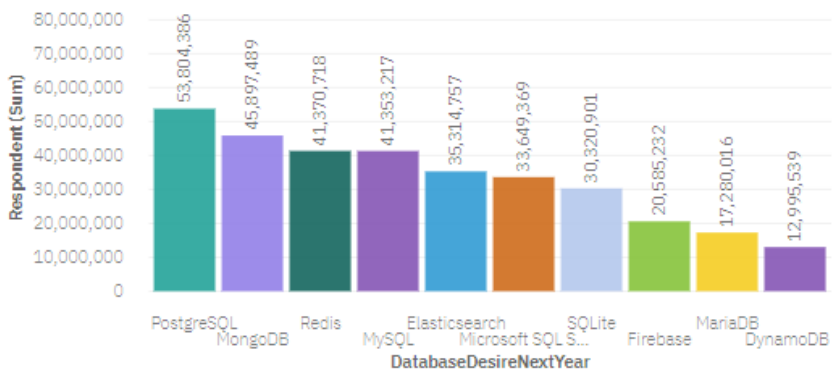


Future Technology Trend

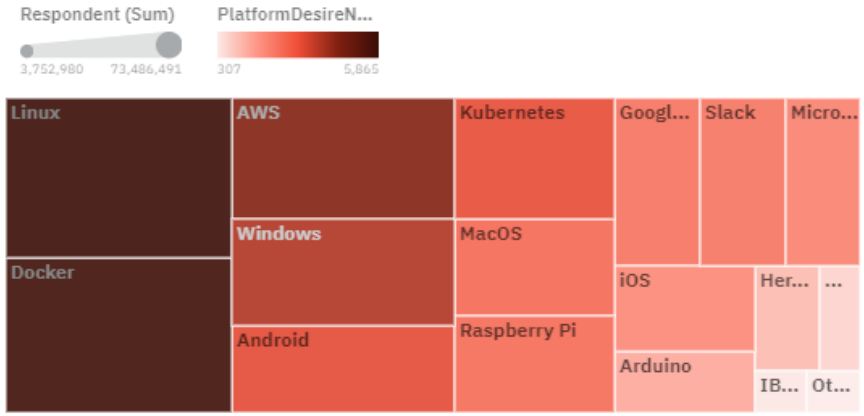
Top 10 LanguageDesireNextYear



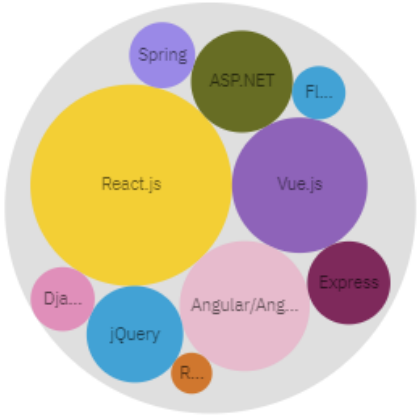
Top 10 DatabaseDesireNextYear



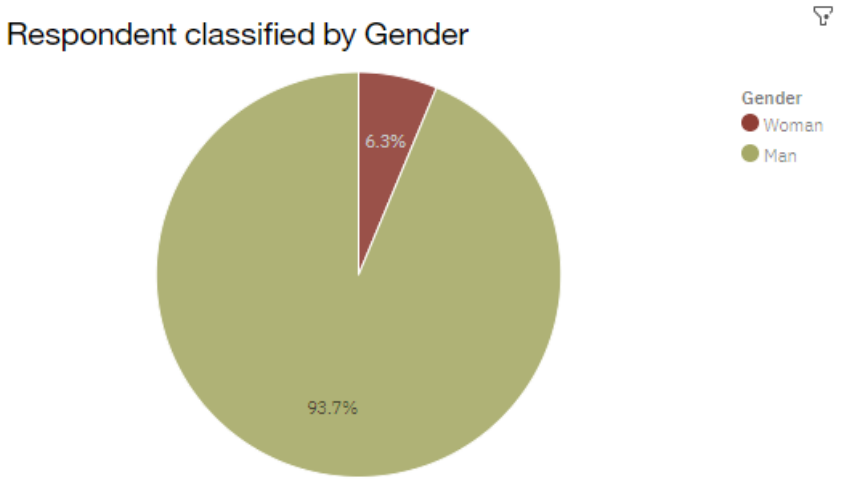
PlatformDesireNextYear

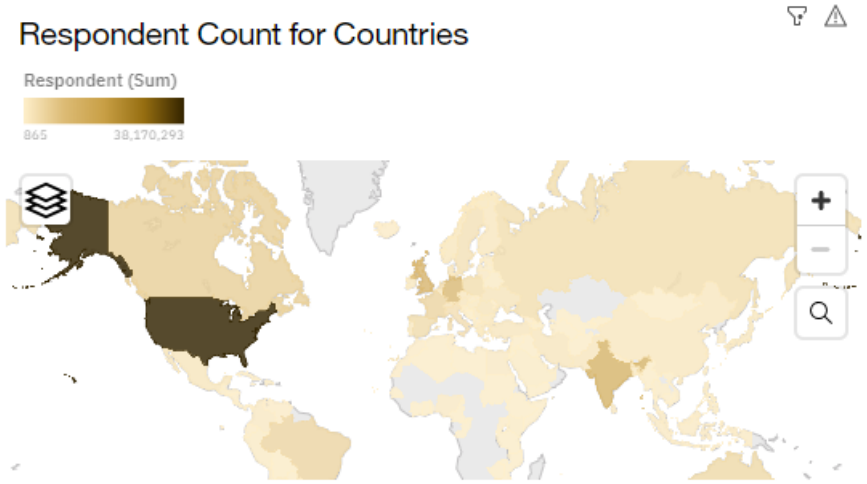


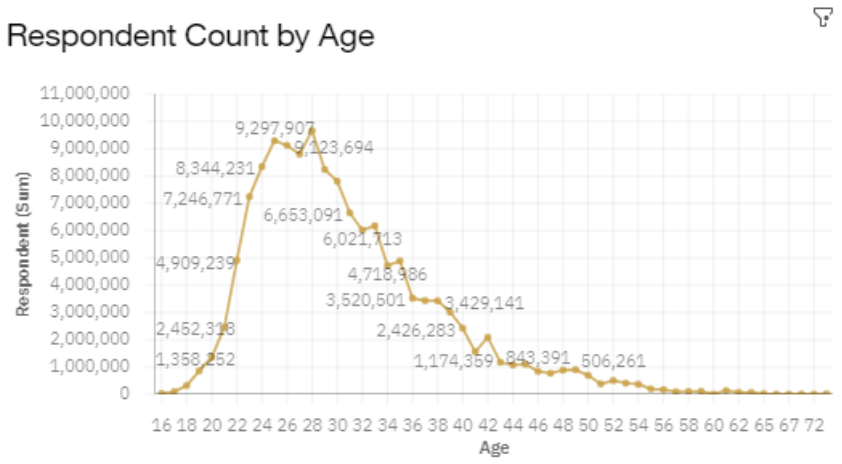
Top 10 WebFrameDesireNextYear

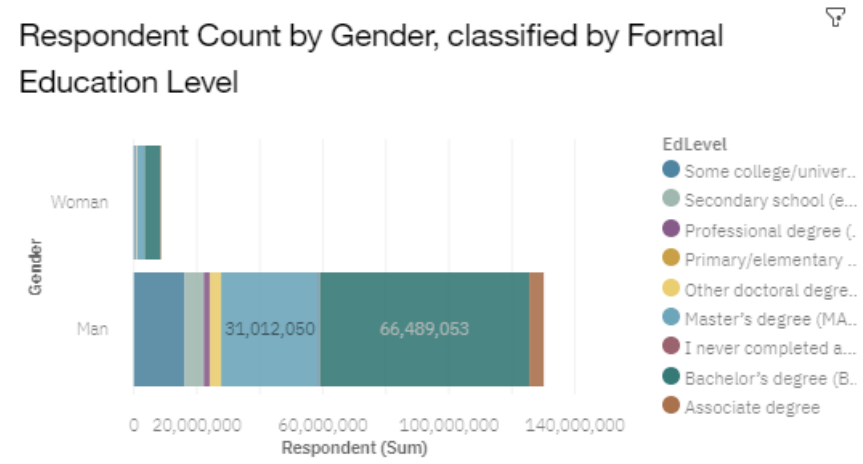


Demographics









DISCUSSION

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript, the fastest-growing major programming language
- Worldwide, about three-fourths of professional developer respondents have the equivalent of a bachelor's degree or higher, consistent with what we've found in previous years.
- About three-fourths of professional developers who took our survey are younger than 35.

Implications

- All categories have dramatically more developers who identify as men than women.
- It is not that rare to find accomplished professional developers who have not completed a degree.

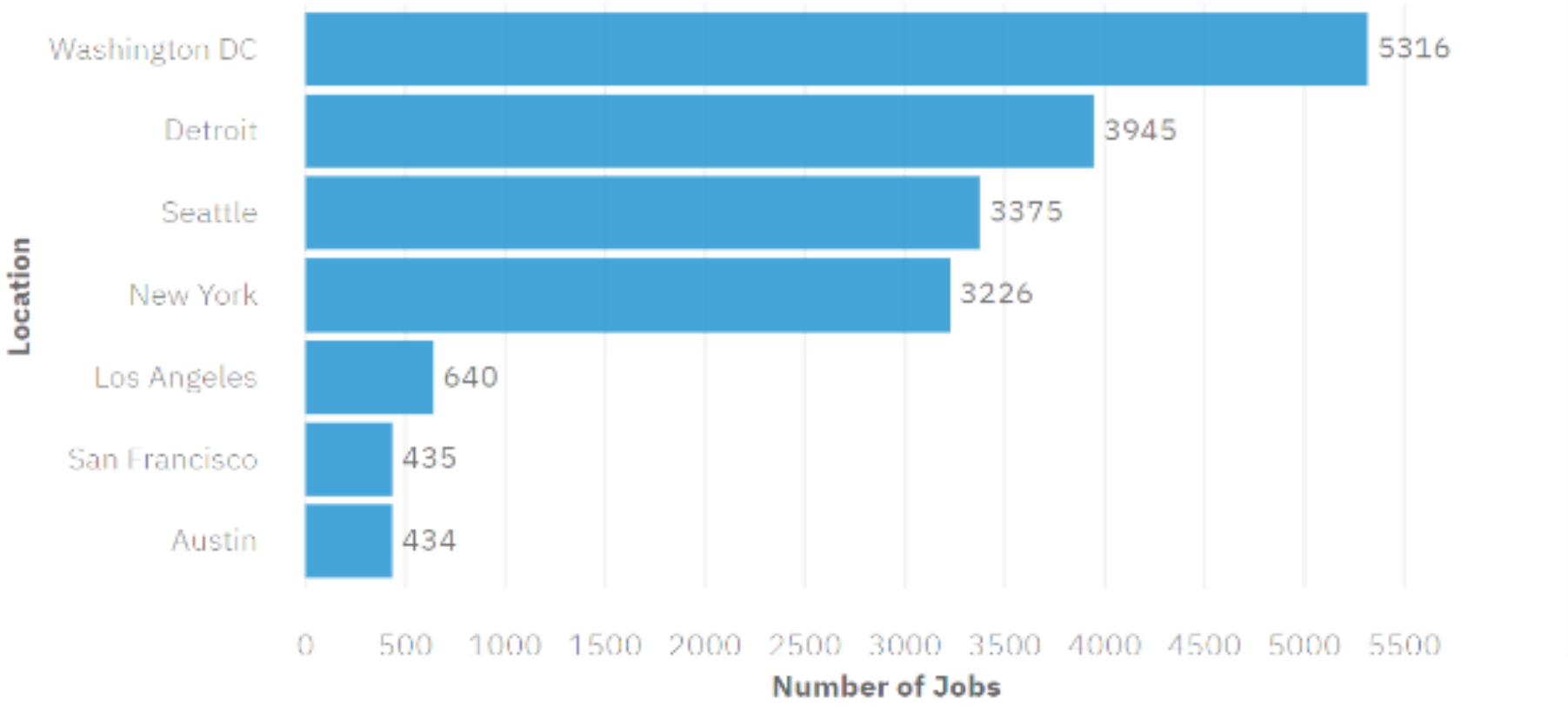
CONCLUSION

- Migration between Databases, Languages and Platforms are a very important skill for the next years.
- Encourage more women to work in IT Industry.
- Learn and expand knowledges.

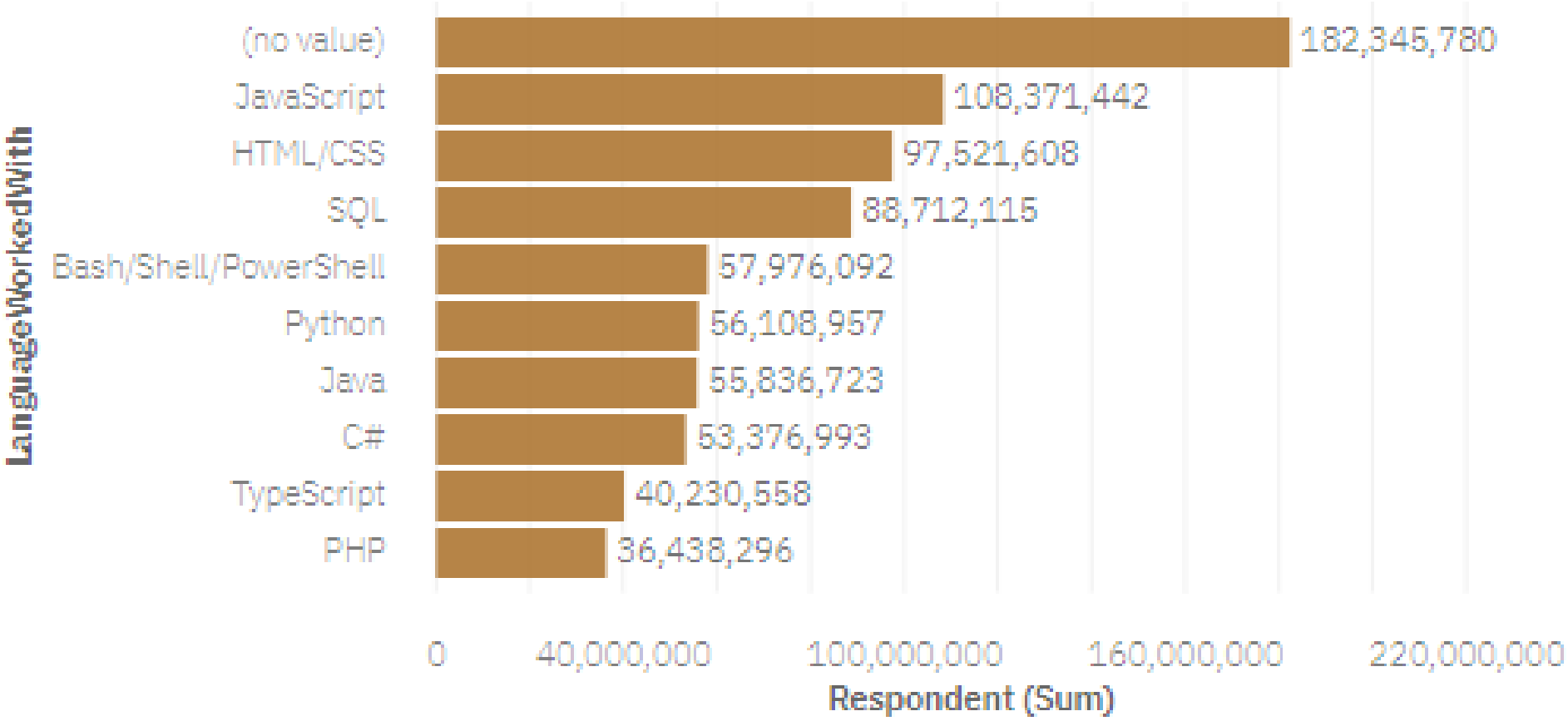
APPENDIX

- Include any relevant additional charts, or tables that you may have created during the analysis phase.

JOB POSTINGS

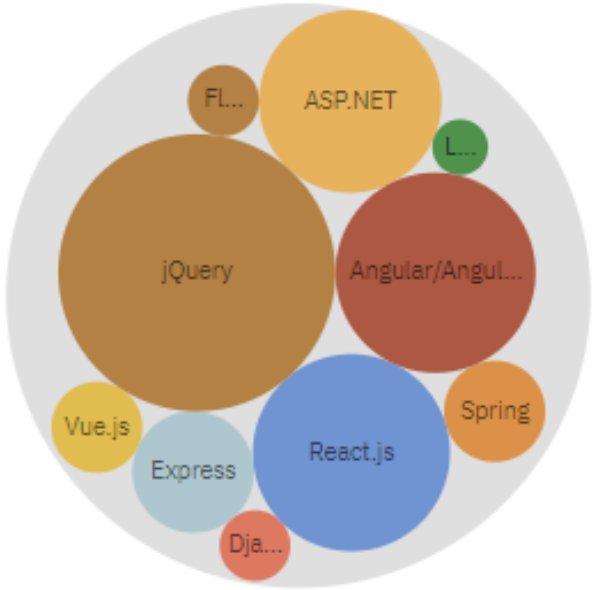


POPULAR LANGUAGES



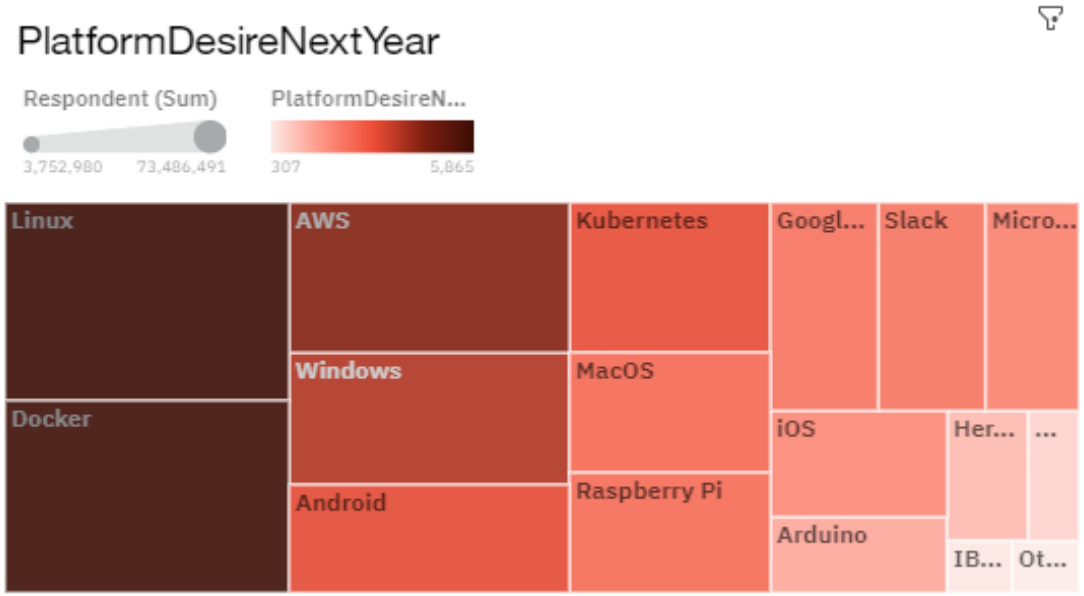
Platform

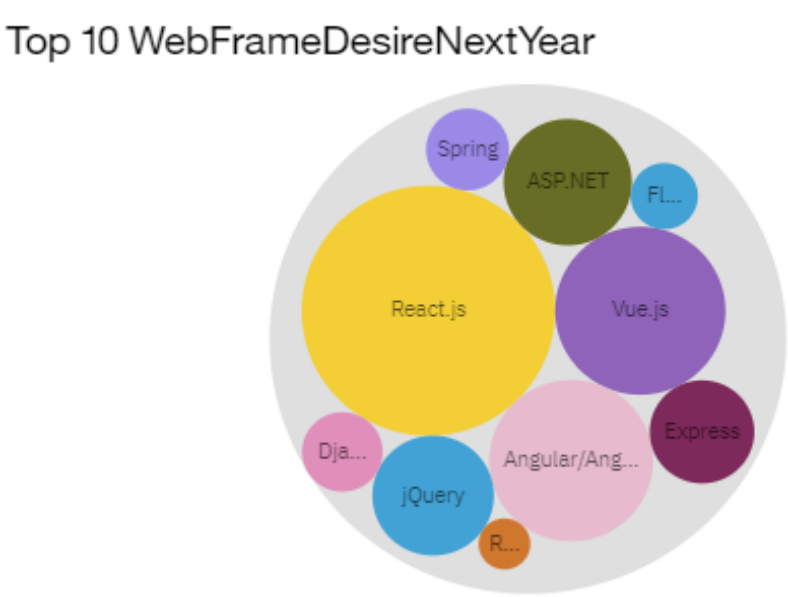
Top 10 WebFrame



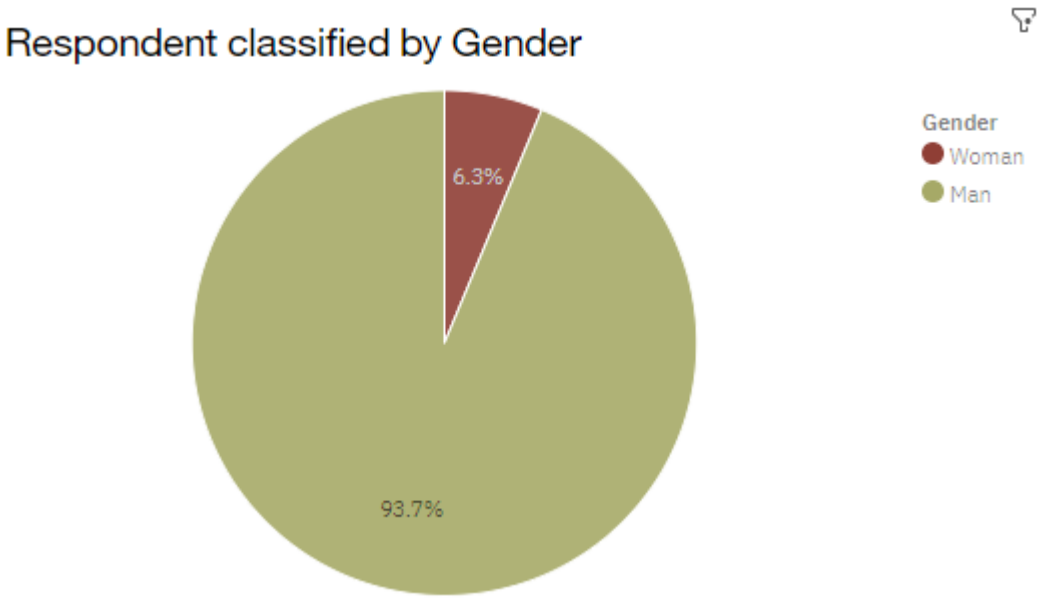
On this slide you can check the most popular Platforms and Web Frames .

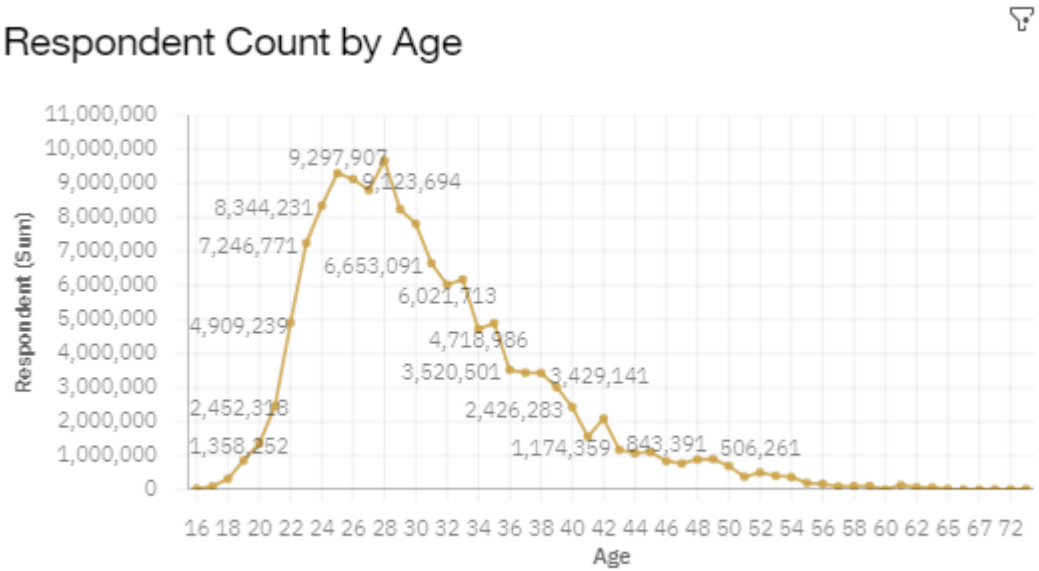
Platform – Linux and Windows.
Web Frame – jQuery.





Future Trend looks totally different.
Platform – Linux and Docker.
Web Frame – Reactjs.





Here we can see that the biggest part of respondents are 25-32 years old males.