The 2019 Stack Overflow Developer Survey

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IBM Developer

SKILLS NETWORK

OUTLINE

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EXECUTIVE SUMMARY

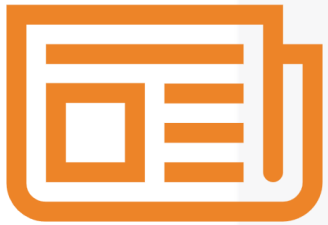
- Top 5 most popular technology this year
  - Language : JavaScript, HTML/CSS, SQL, Bash/Shell/PowerShell, Python
  - Database : MySQL, Ms SQL Server, PostgreSQL, SQLite, MongoDB
  - Platform : Linux, Windows, Docker, AWS, Slack
  - Web Frame : jQuery, Angular/Angular.js, React.js, ASP.NET, Express

- Top 5 most popular desire technology next year
  - Language : JavaScript, HTML/CSS, Python, SQL, TypeScript
  - Database : PostgreSQL, MongoDB, Redis, MySQL, Elasticsearch
  - Platform : Linux, Docker, AWS, Windows, Android
  - Web Frame : React.js, Vue.js, Angular/Angular.js, ASP.NET, jQuery

INTRODUCTION

- What is the most popular technology for this year?
- What is the most popular desire technology for next year?
- What will be the trend of technological changes next year?
- How can we prepare for them?

METHODOLOGY



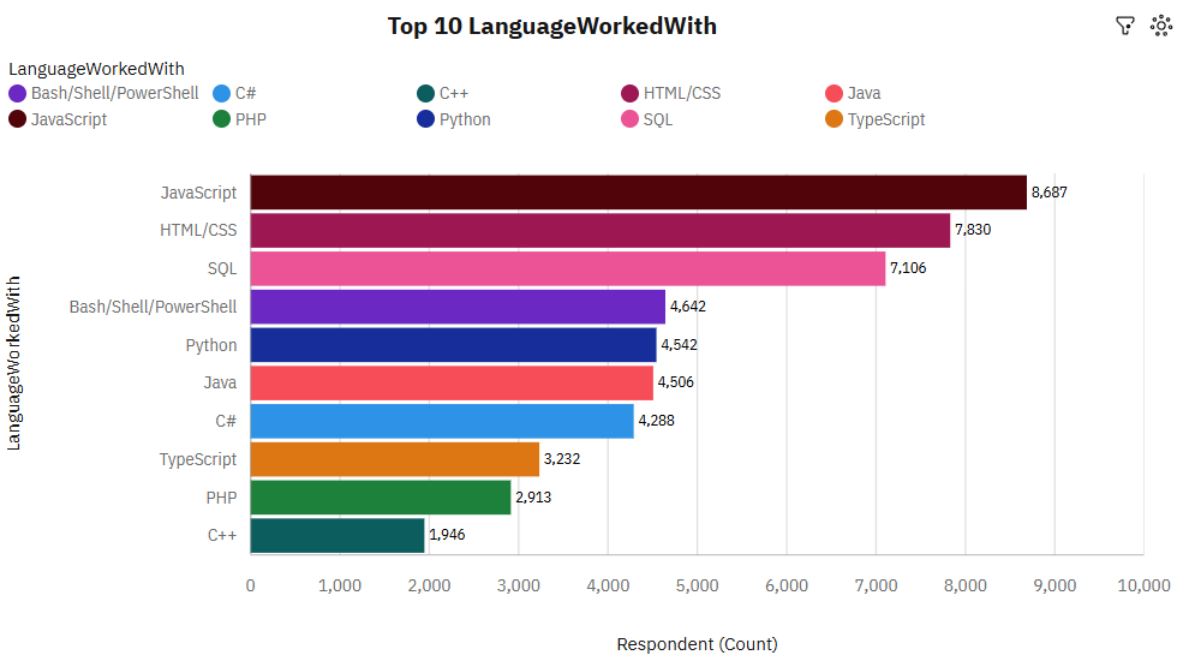
- Use a bar chart to compare the popularity of programming languages.
- Use a bar chart to compare the popularity of databases.
- Use a word cloud / heat map to compare the popularity of platforms.
- Use a hierarchy bubble chart to compare the popularity of web frame.

- The data collected is from volunteers, both male and female, worldwide, aged between 16 and 100 years, and from all levels of education.

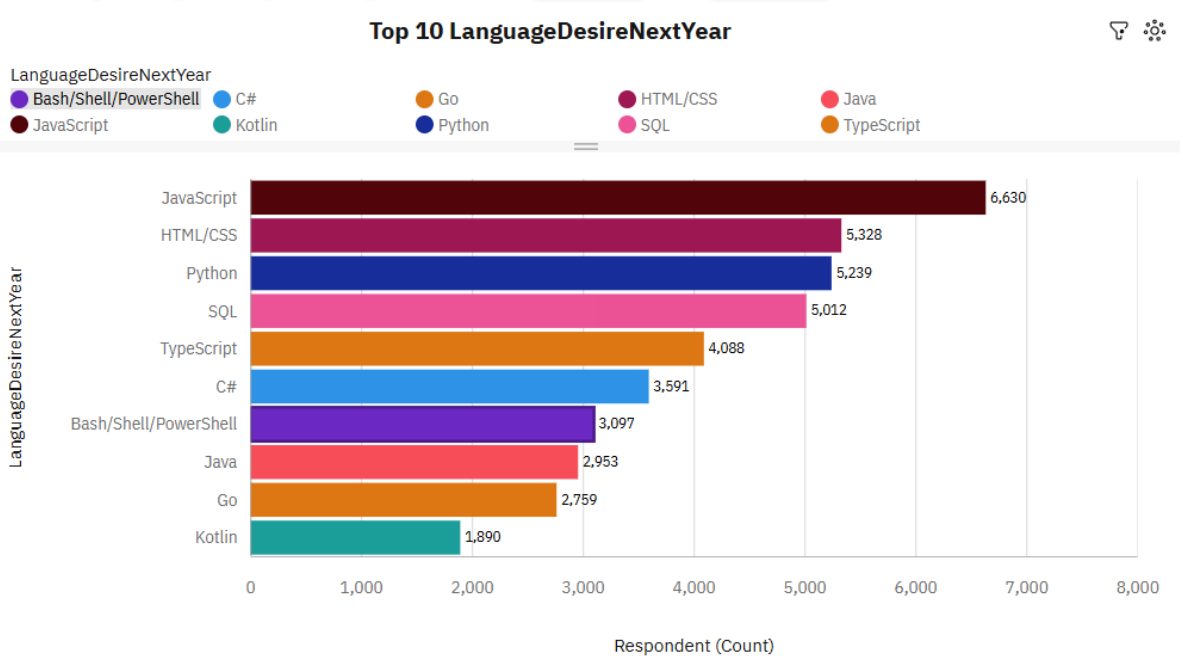
RESULTS

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

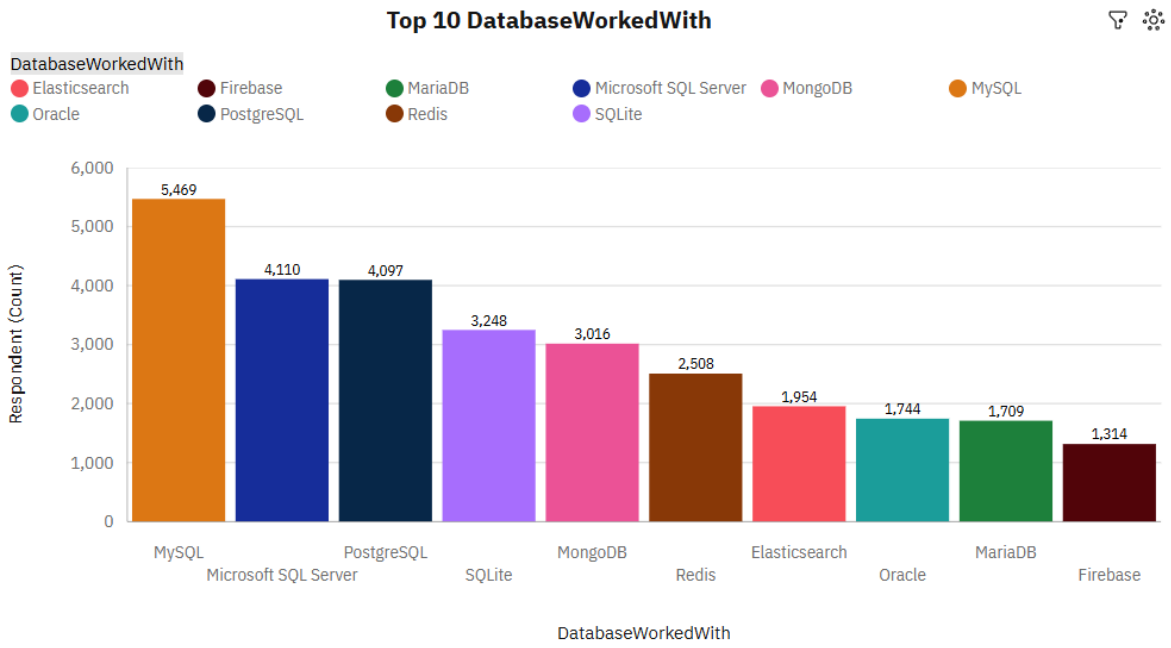
- JavaScript and HTML/CSS seem still most popular.
- Python and TypeScript are gaining more popularity.
- Bash/Shell/PowerShell and Java have seen a decline in popularity.

Implications

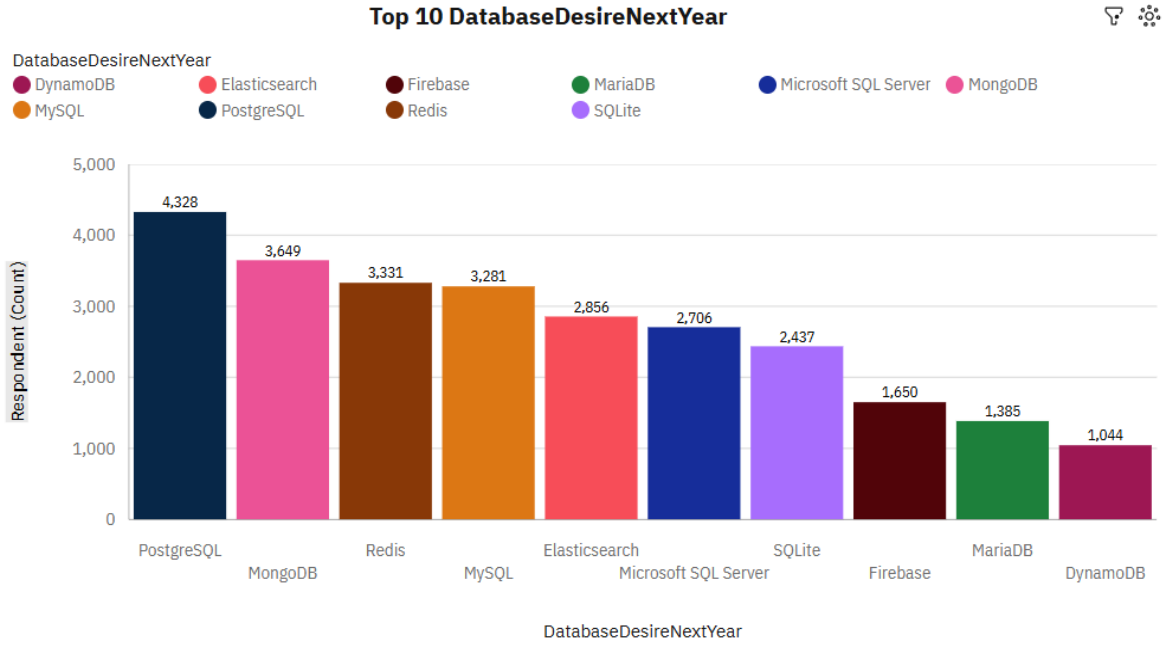
- There is a trend that developers will increasingly turn to Python and TypeScript.

DATABASE TRENDS

Current Year



Next Year



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SKILLS NETWORK

DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Currently, MySQL is highly popular.
- PostgreSQL, MongoDB and Redis are showing a significant increase in popularity.
- Microsoft SQL Server and SQLite has seen a significant decline in popularity.

Implications

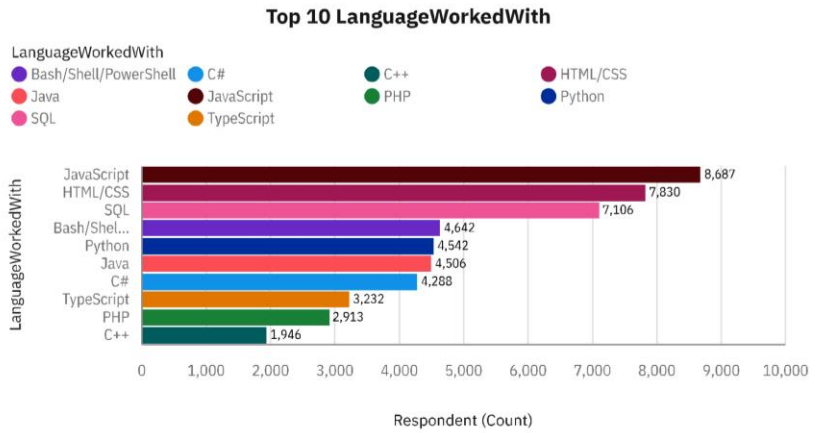
- There is a trend that developers will increasingly adopt PostgreSQL, MongoDB, and Redis.

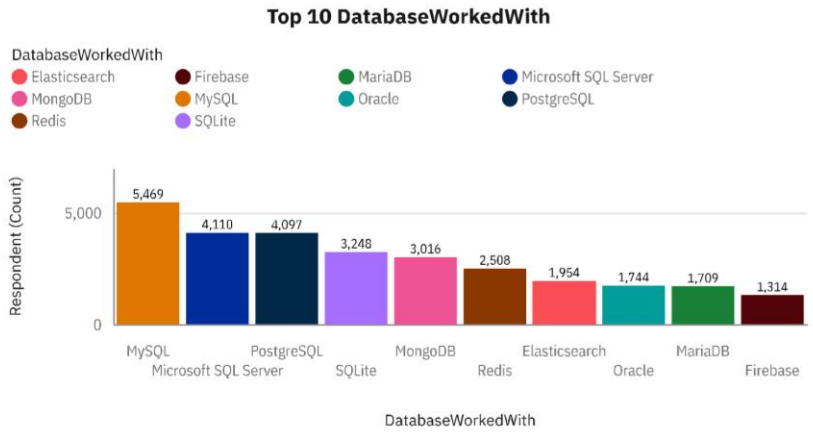
DASHBOARD

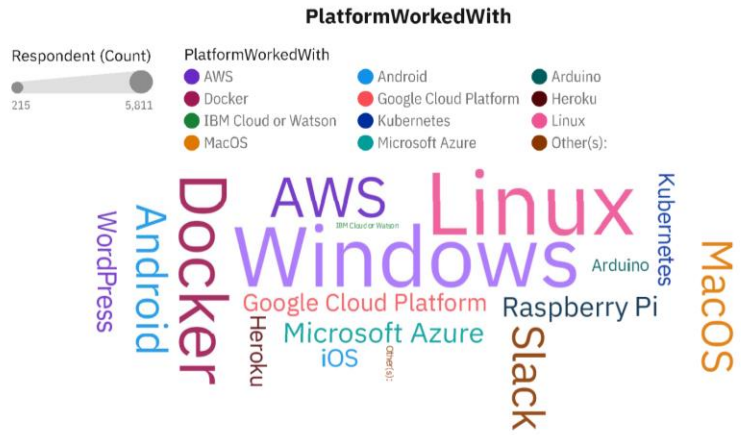
https://github.com/ProtoBLUEs/cognos-dashboard/blob/f0c249e3723a54b5da945812917705d8ebbe3f3d/Building%20a%20dashboard%20with%20IBM%20Cognos%20Analytics_R1.pdf

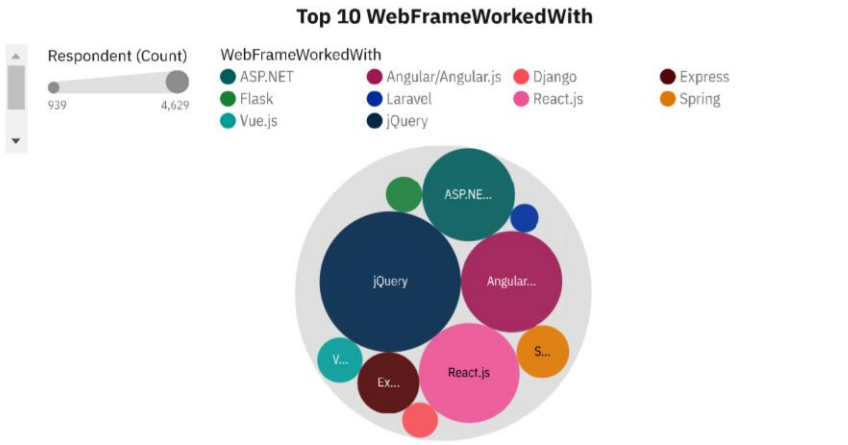
DASHBOARD TAB 1

Current Technology Usage



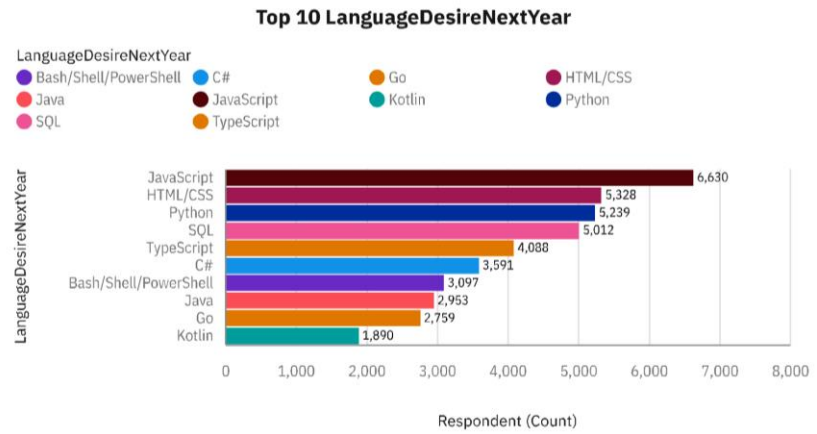


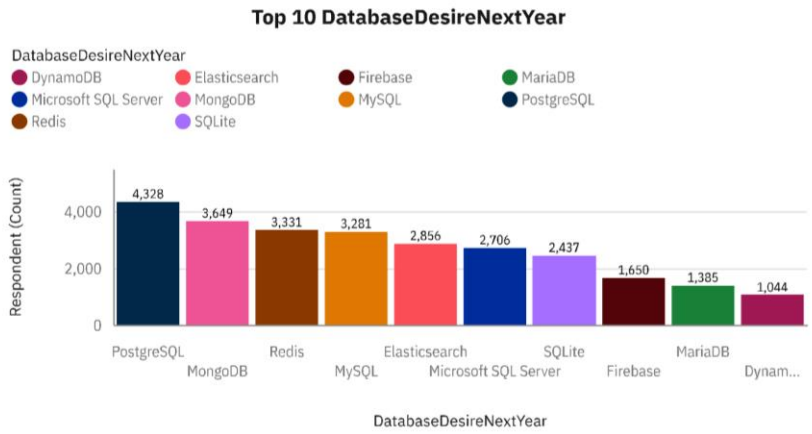


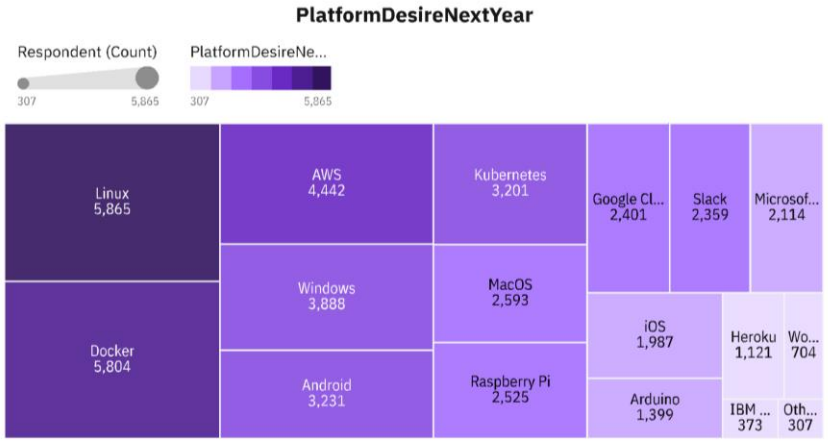


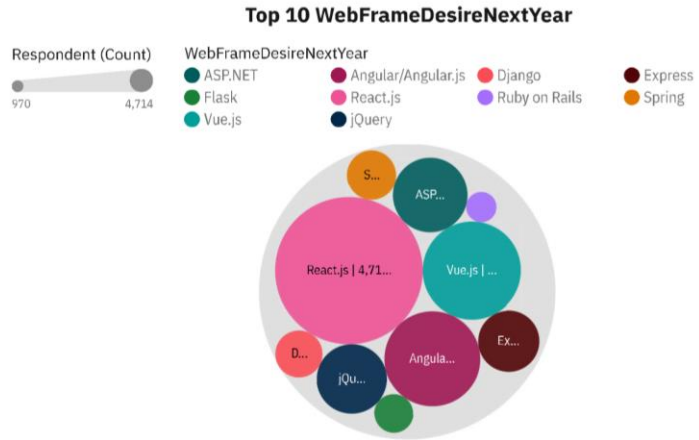
DASHBOARD TAB 2

Future Technology Trend





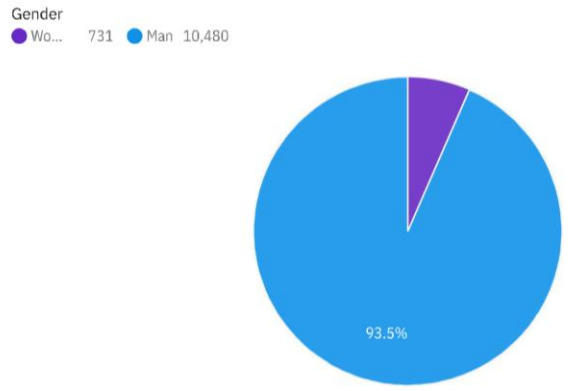




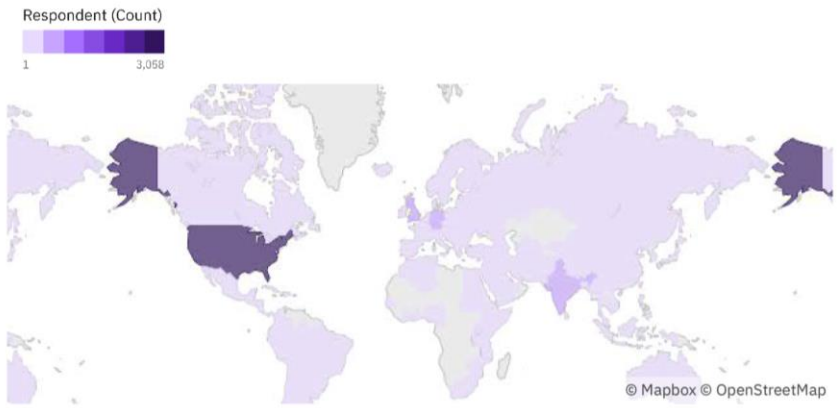
DASHBOARD TAB 3

Demographics

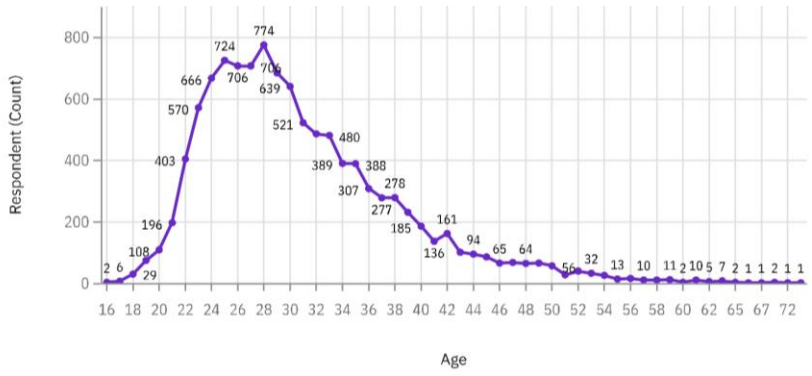
Respondent classified by Gender



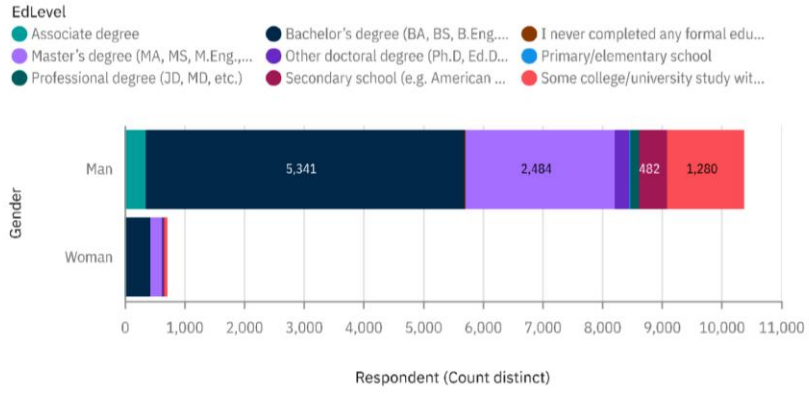
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION

- How can we prepare for Changing of technology trend?
  - Training or Hiring
  - How to adjust the workflow
- How long will this trend last?

OVERALL FINDINGS & IMPLICATIONS

Findings

- JavaScript and HTML/CSS seem still most popular.
- Python and TypeScript are gaining more popularity.
- PostgreSQL, MongoDB and Redis are showing a significant increase in popularity.

Implications

- There is a trend that developers will increasingly turn to Python and TypeScript.
- There is a trend that developers will increasingly adopt PostgreSQL, MongoDB, and Redis.

CONCLUSION

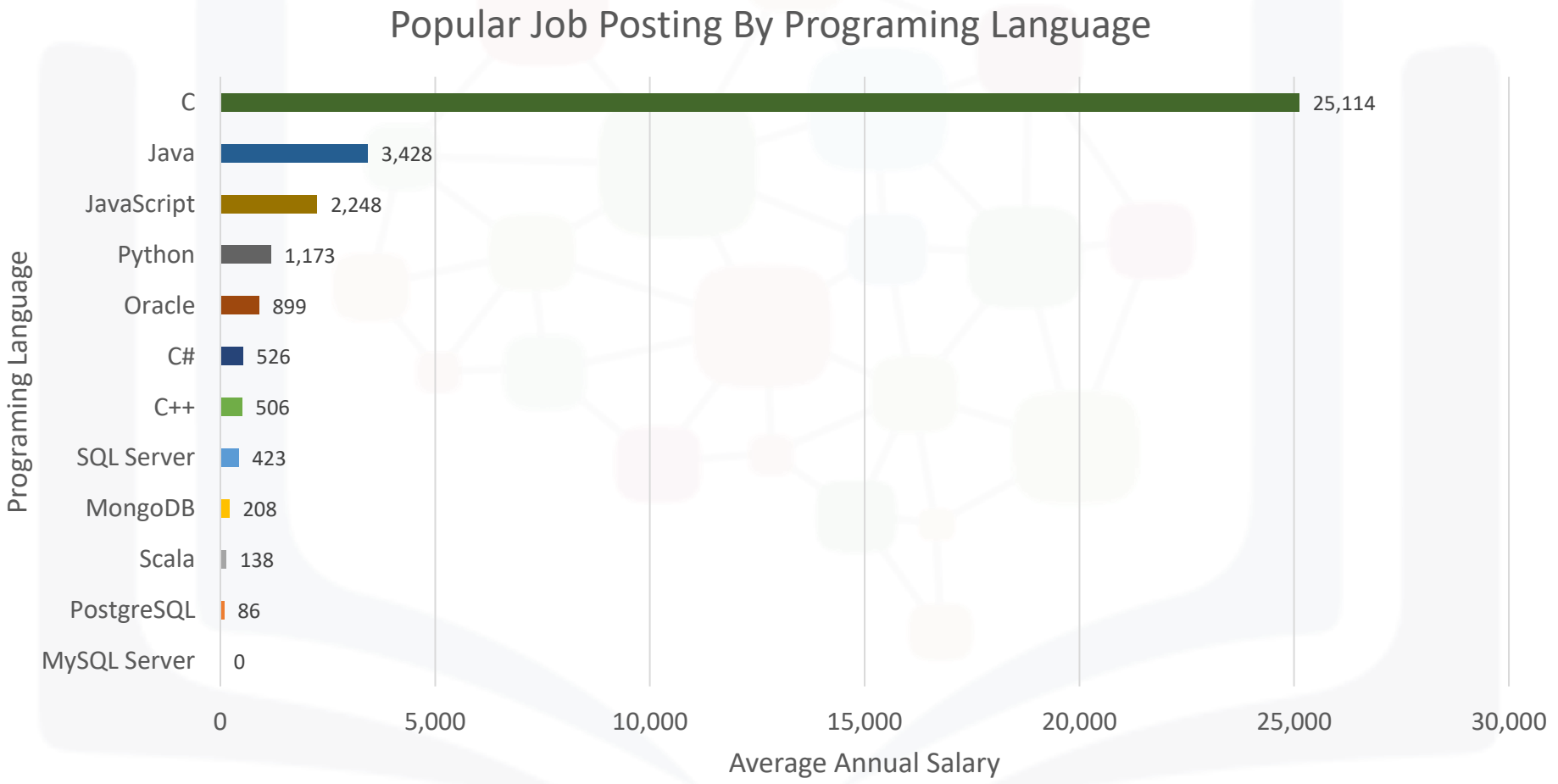
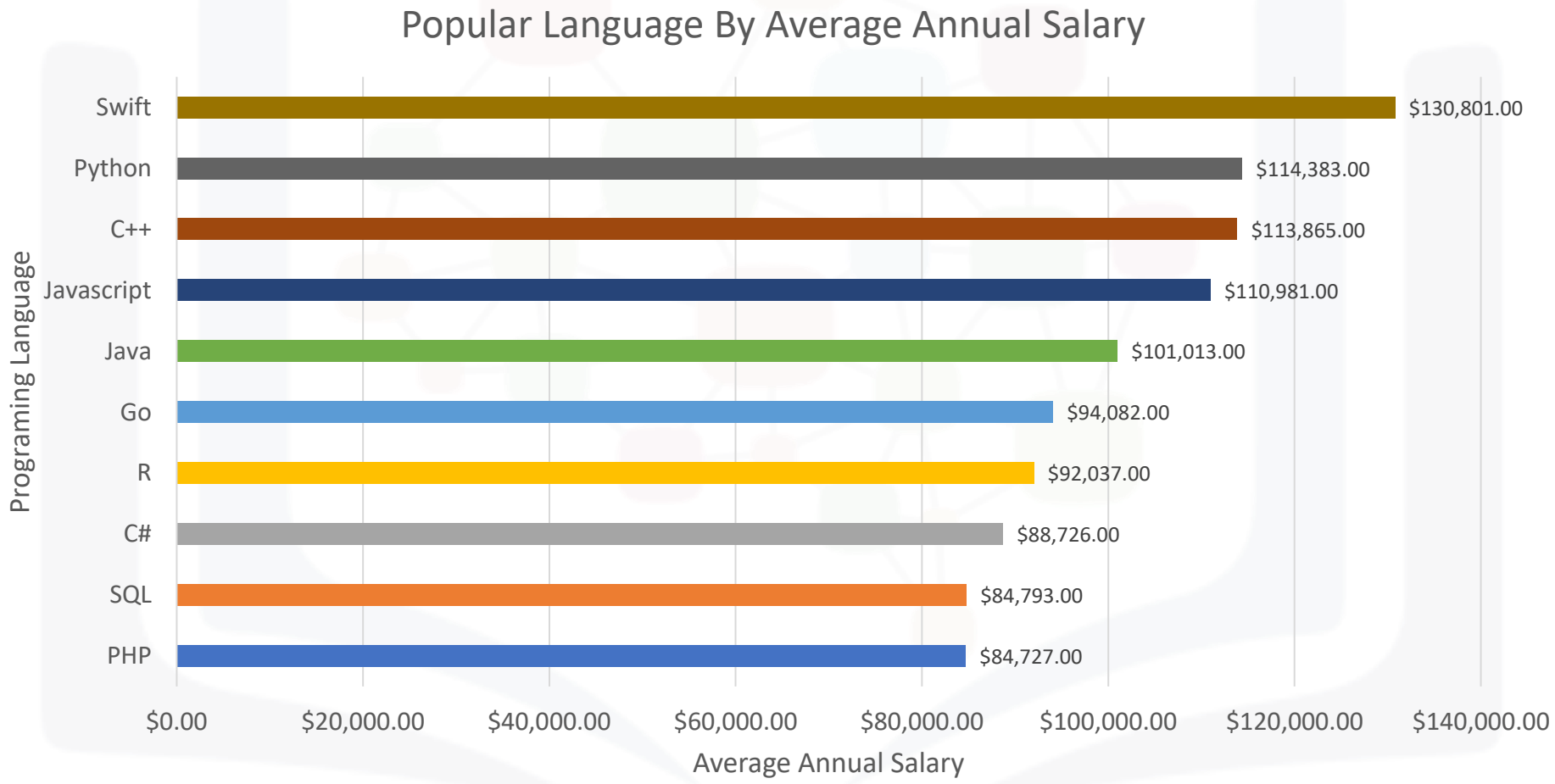
- Top 5 most popular technology this year
  - Language : JavaScript
  - Database : MySQL
  - Platform : Linux
  - Web Frame : jQuery
- Top 5 most popular desire technology next year
  - Language : JavaScript
  - Database : PostgreSQL
  - Platform : Linux
  - Web Frame : React.js

CONCLUSION

- There is a trend that developers will increasingly turn to Python and TypeScript.
- There is a trend that developers will increasingly adopt PostgreSQL, MongoDB, and Redis.
- We should plan to adapt to the changing trends in popularity.

APPENDIX

JOB POSTINGS



POPULAR LANGUAGES