



# Survey results

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# OUTLINE

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

# EXECUTIVE SUMMARY

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- This report is a data analysis done on a surveys on Stack Overflow. The survey contain data related to:
  - Current and desired IT skills
  - Demographic background (gender, location, ...)
  - Psychological characteristics (introvert vs extravert, ...)
- Key takeaways of the data analysis:
  - Invest more in trying to get the gender ratio more balanced.
  - Developers skilled in PHP or C++ will become more difficult to find.

# METHODOLOGY

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- Data collection was done using
  - Stack Overflow survey result (CSV file)
  - Web Scraping of Wikipedia pages
- Exploratory data analysis was performed including
  - Data Wrangling (removing duplicates, replacing null values, ...)
  - Data Statistical Analysis (median, ...)
  - Data Visualization

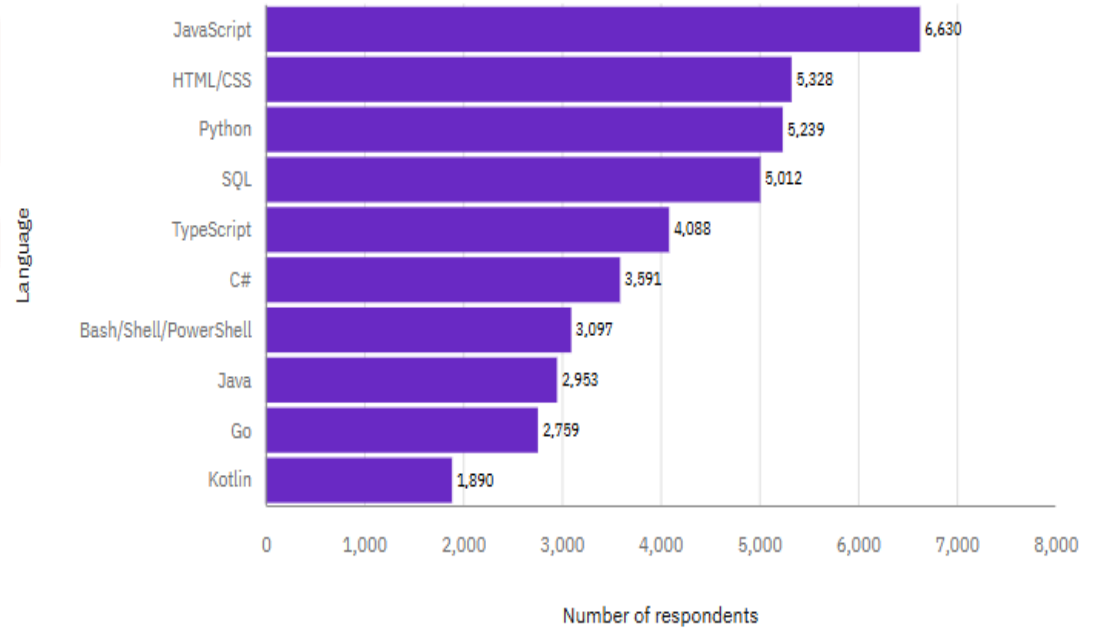
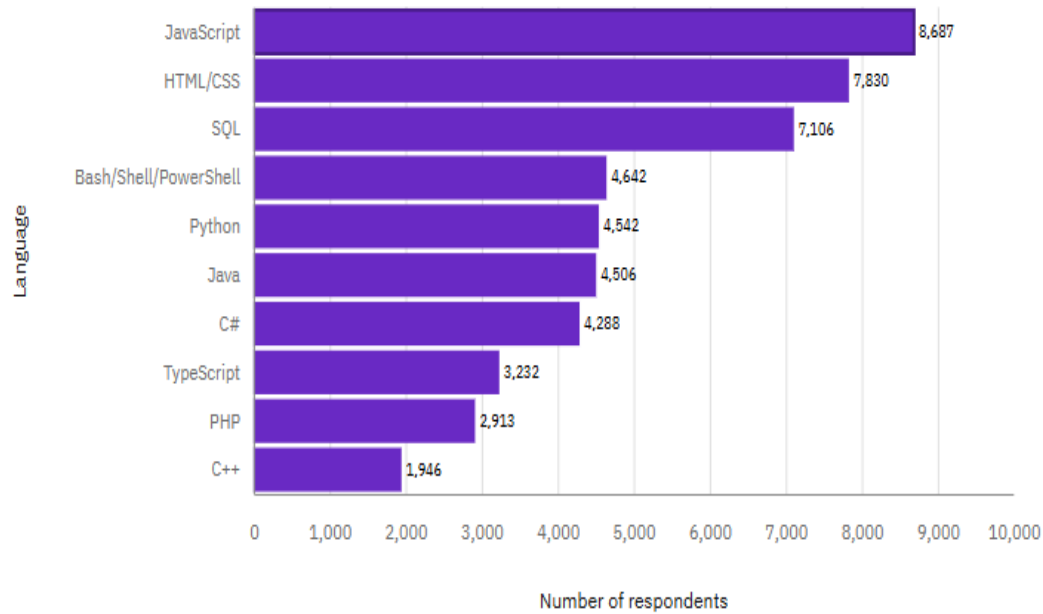
# PROGRAMMING LANGUAGE TRENDS

## Current Year

## Next Year

Top 10 Used Languages

Top 10 Desired Languages to Use



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Web-related languages like JavaScript and HTML/CSS will still be relevant as part of the skillset the next year.
- There will be less interest in PHP and C++.
- Newer languages like Go and Kotlin will have an increased interest.

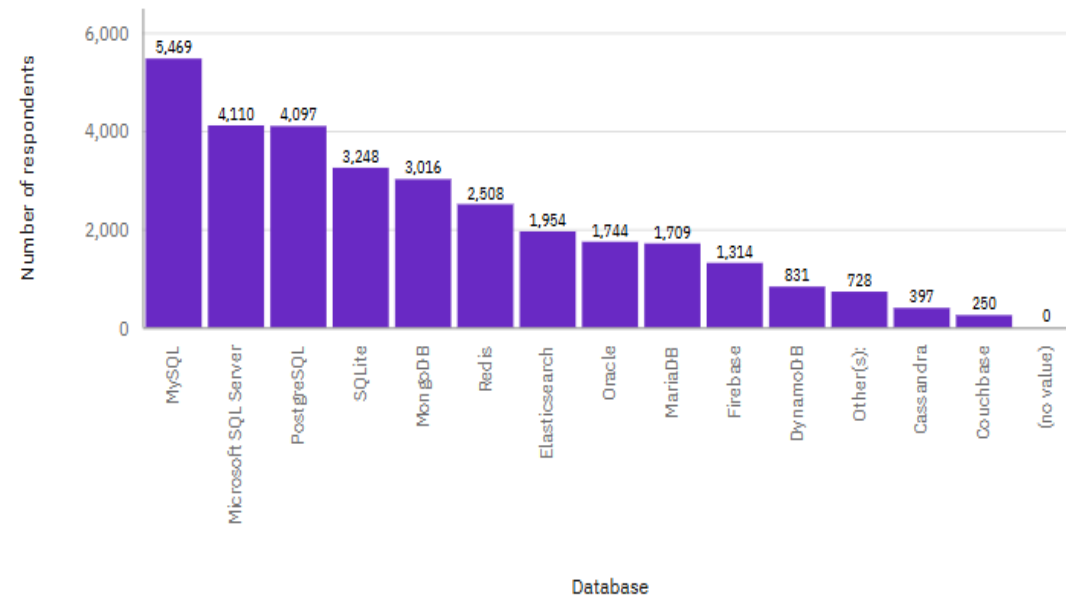
## Implications

- Web-related languages are skills that people still want to develop their skills in (except PHP)
- There will probably more difficulty to find people wanting to develop in PHP and C++.

# DATABASE TRENDS

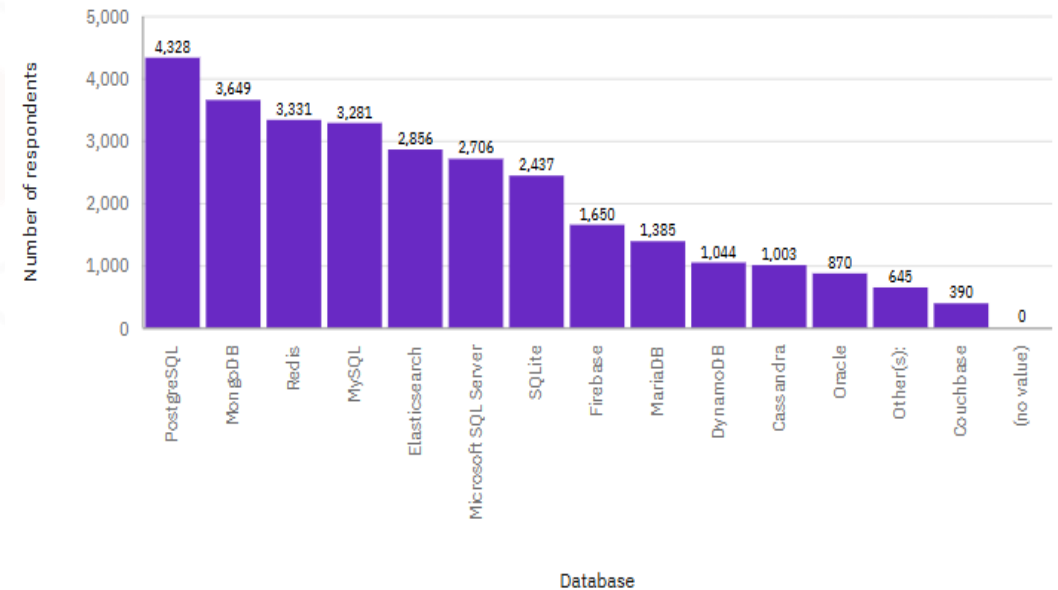
## Current Year

Top 10 Used Databases



## Next Year

Top 10 Desired Databases to Use



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL and MS SQL Server will lose a bit of interest next year.
- Non-SQL databases like Elastic Search, Cassandra, ... will have an increased interest.
- PostgreSQL will have the same kind of interest next year.

## Implications

- It might become a bit more difficult to find people wanting to learn MySQL and MS SQL Server.
- Non-SQL databases might become a preference for most developers.
- Interest in PostgreSQL remains constant.



# DASHBOARD

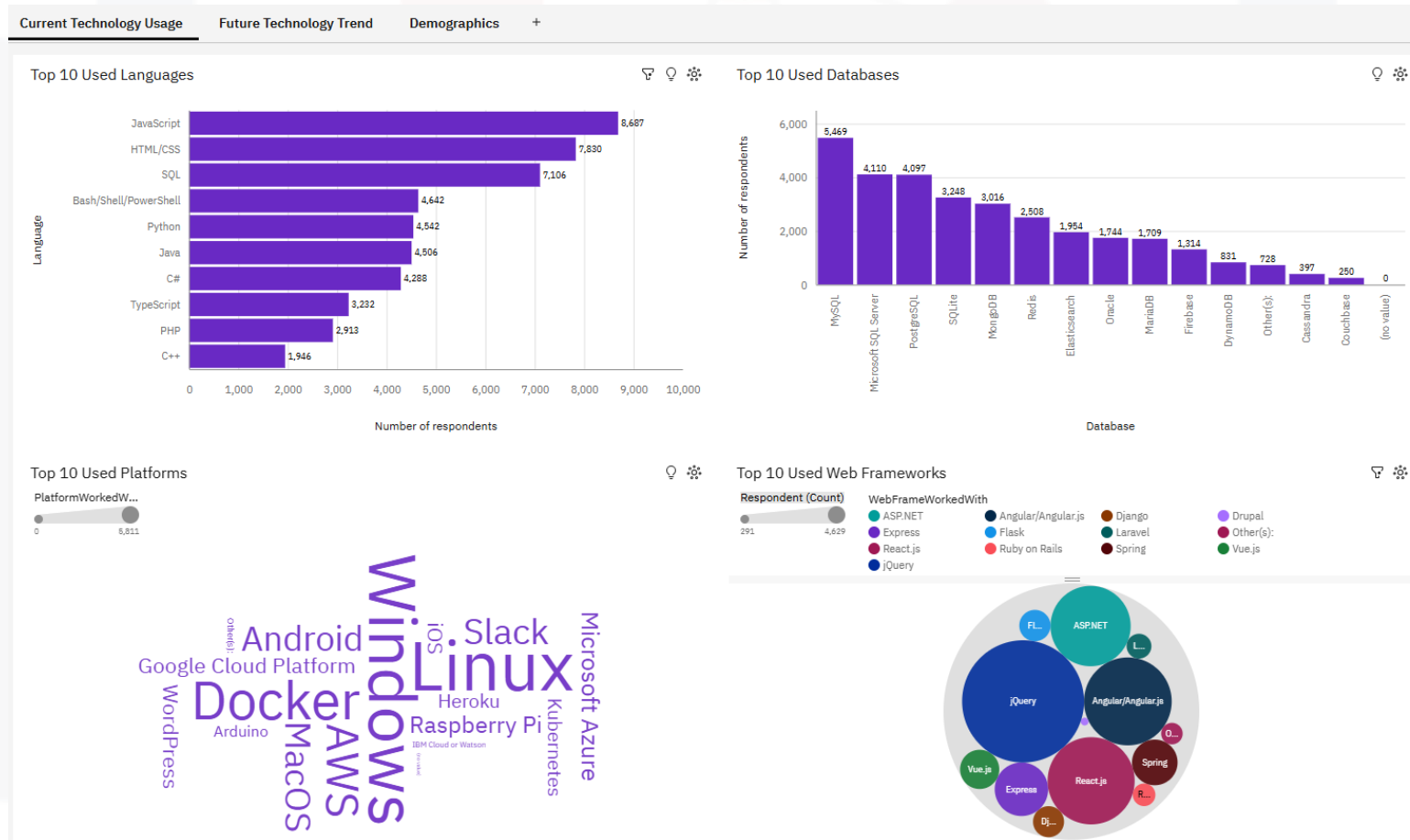
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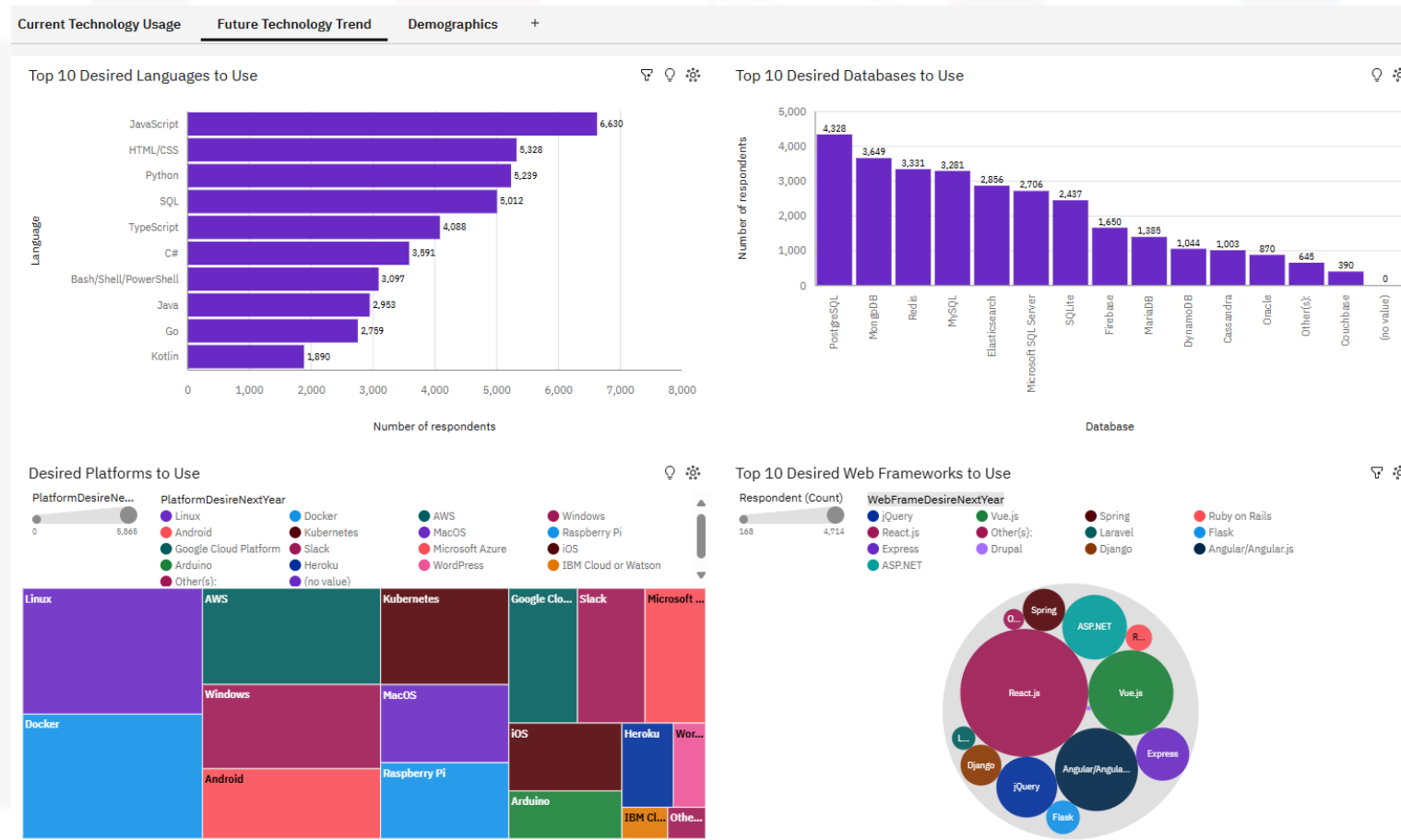
The PDF document containing the dashboard screenshots can be found in GitHub:

[https://github.com/sirasen/sandbox/blob/main/data\\_analyst\\_lab/Capstone\\_Dashboard\\_Cognos\\_Analytics.pdf](https://github.com/sirasen/sandbox/blob/main/data_analyst_lab/Capstone_Dashboard_Cognos_Analytics.pdf)

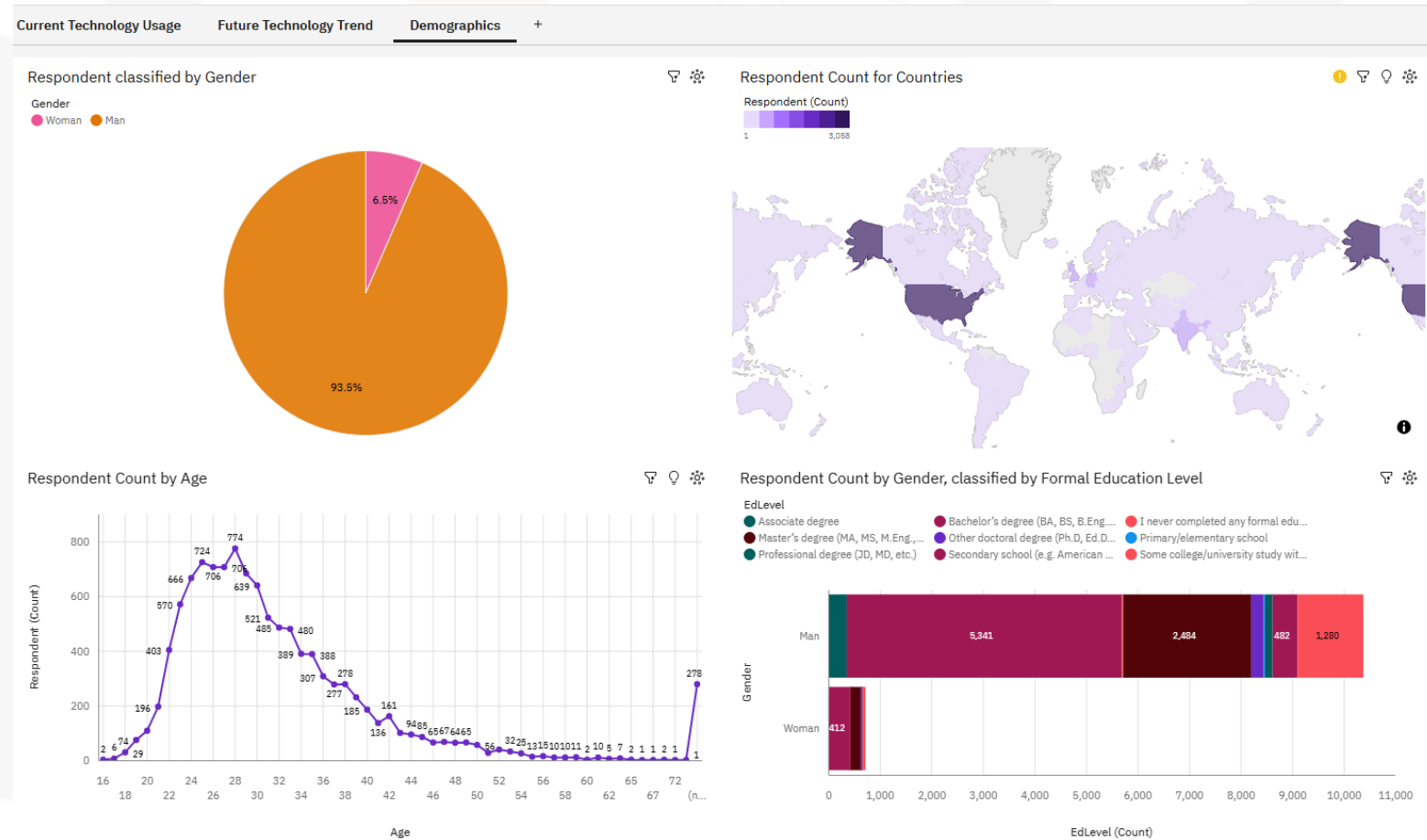
# DASHBOARD TAB 1



# DASHBOARD TAB 2



# DASHBOARD TAB 3



# OVERALL FINDINGS & IMPLICATIONS

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## Findings

- Still a lot more men than women in the developer field.
- Web languages like JavaScript and HTML/CSS are still high on the list of skills developers want to have.

## Implications

- Invest more in trying to get the men-woman ratio more balanced.
- Developers skilled in PHP or C++ will become more difficult to find.

# CONCLUSION

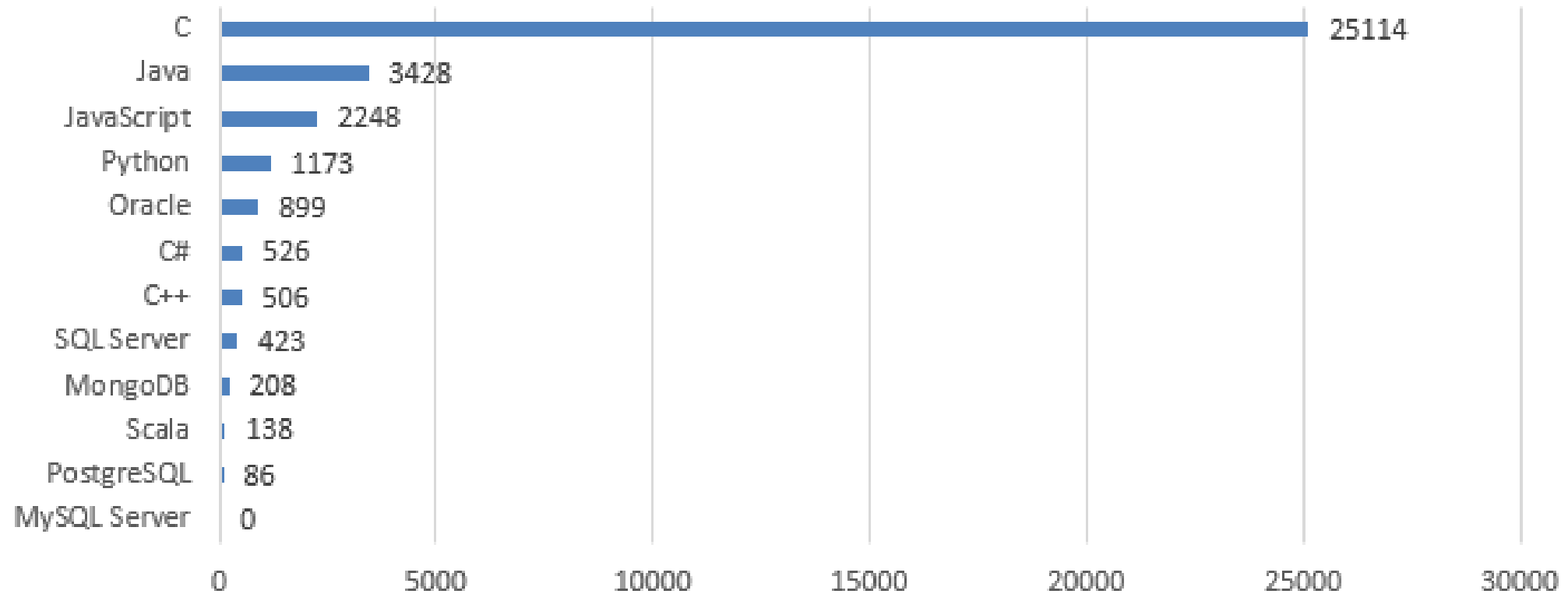
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- Invest more in trying to get the gender ratio more balanced.
- Developers skilled in PHP or C++ will become more difficult to find.

# JOB POSTINGS

Number of open job positions classified by required technology



# POPULAR LANGUAGES

