



# FINDINGS REPORT CAPSTONE PROJECT

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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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- We worked with a dataset composed of 90,000 responses from software professionals around the world, making it possible to reflect the real-world scenario.
- The main points of interest are which languages, databases and frameworks are the most used by the respondents nowadays and which knowledge are desired by then for the coming years.

# INTRODUCTION

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- PROGRAMMING LANGUAGE TRENDS
- DATABASE TRENDS
- DASHBOARDS
  - TOP 10s;
  - Respondents by Country;
  - Respondents by Gender;
  - Respondents by AGE;

# METHODOLOGY

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- Dataset Steps:



- 1) Data Wrangling ( Removing Duplicates, Imputing Missing Values)
- 2) Data Analysis (Handling Outliers, Correlation)
- 3) Data Visualization ( Visualizing Relationship, Composition and Comparison of Data)

# RESULTS

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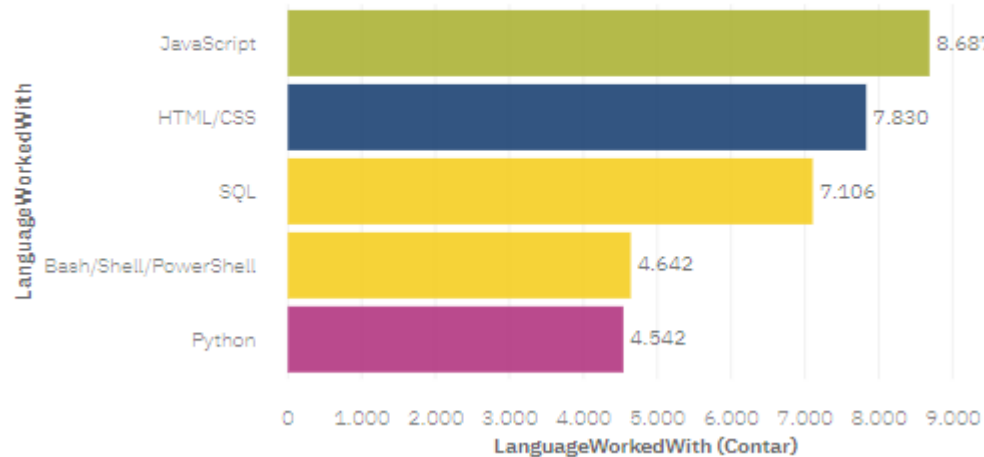
- The data used on the charts are from the already discussed Dataset.
- The RELEVANT data will be shown in different charts, like:
  - PIE CHARTS
  - STACKED CHARTS
  - LINE CHARTS
  - BAR CHARTS
  - BUBBLE CHARTS

# PROGRAMMING LANGUAGE TRENDS

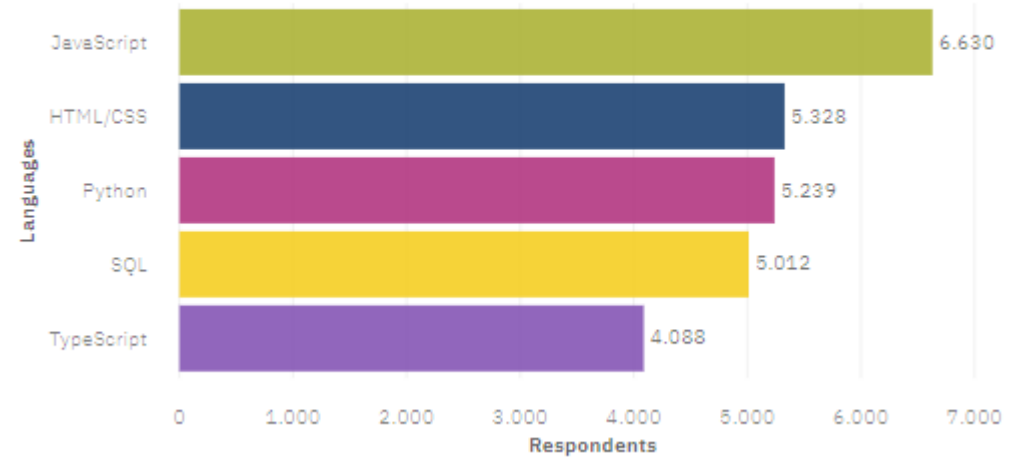
Current Year

Next Year

Top 5 Languages this Year



Top 5 Languages Desired Next Year



# PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- Javascript and HTML/CSS are the most used programming languages today and the most desired by programmers in the near future.
- The situation of Python is approximately the same as the both above

## Implications

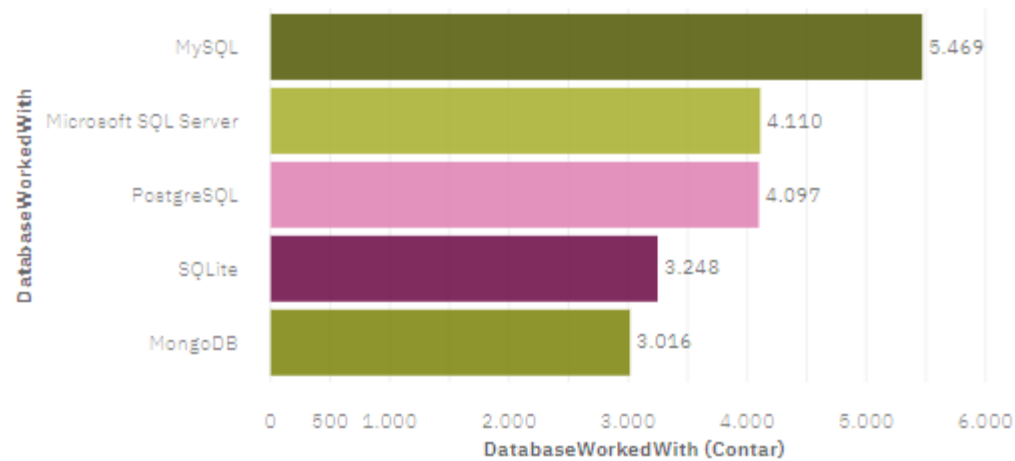
- Bash/Shell/PowerShell are used today, but programmers want to learn more about TypeScript in the near future



# DATABASE TRENDS

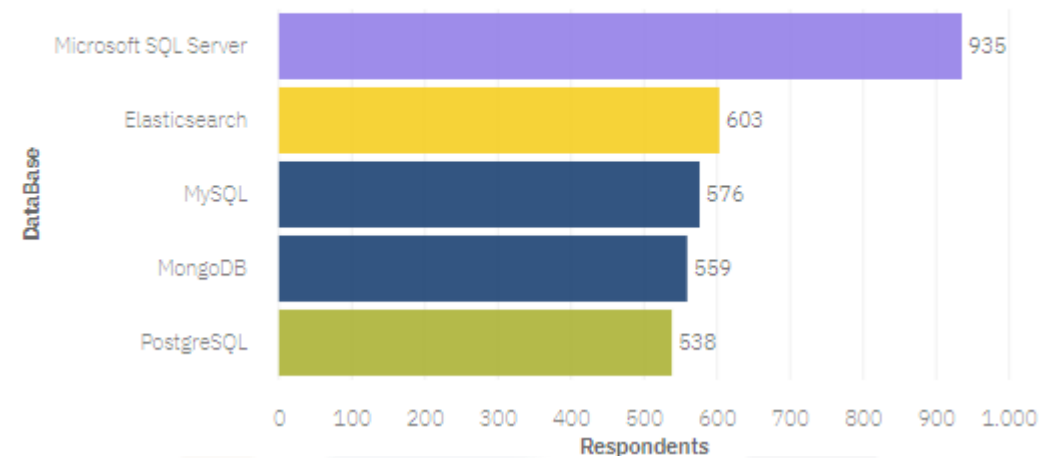
## Current Year

Top 5 Databases this Year



## Next Year

Top 5 Databases Desired Next Year



# DATABASE TRENDS - FINDINGS & IMPLICATIONS

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## Findings

- MySQL is the most used database by respondents, followed by Microsoft SQL Server and PostgreSQL
- In the near future respondents want to learn more about Microsoft SQL Server and Elasticsearch

## Implications

- MySQL has lost space among respondents, while Microsoft SQL Server has been increasingly requested

# DASHBOARD

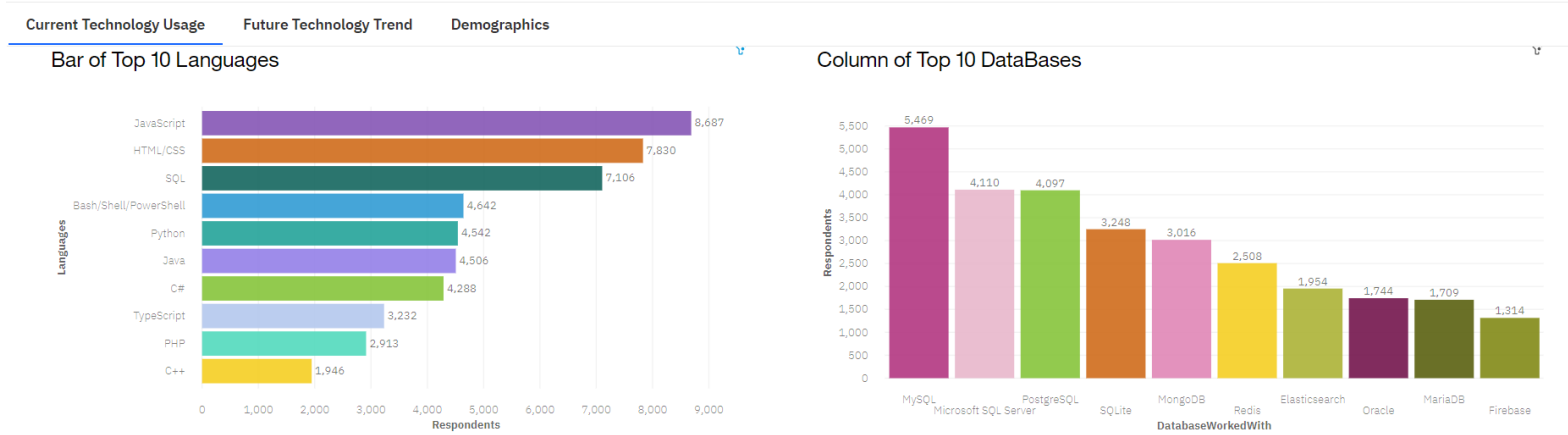
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## Permanent link:

<https://eu-de.dataplatform.cloud.ibm.com/dashboards/1e63d1b4-d367-4ca8-b823-2652b19e1262/view/5411e43b21f1298d7cb5dce407cd24047b36200ee0bbd65687d47b4908627097f06f1596c82d1f5b89450163f1bf400a9a>

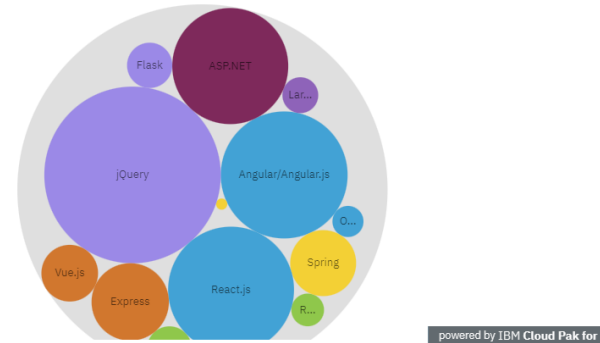
# DASHBOARD TAB 1



### Word Cloud of Platforms



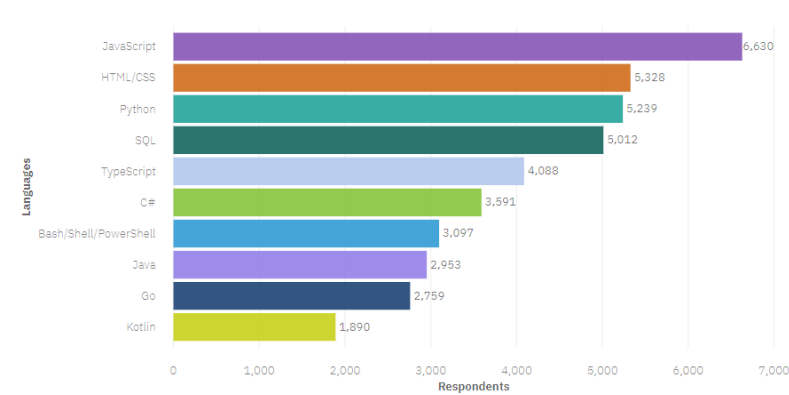
### Hierarchy Bubble Chart Top 10 WebFrame



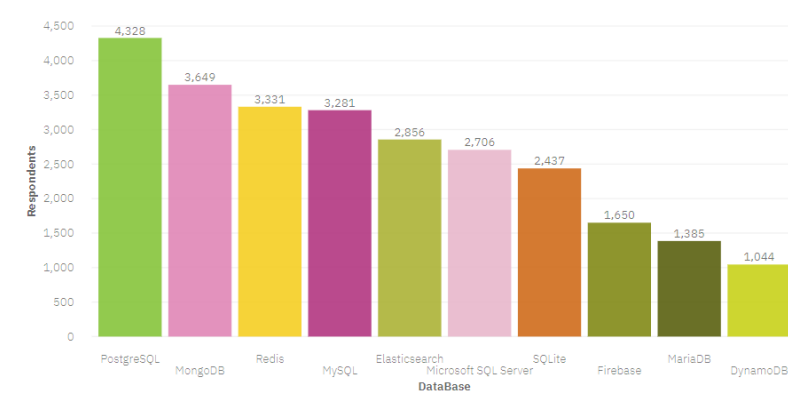
# DASHBOARD TAB 2

Current Technology Usage Future Technology Trend Demographics

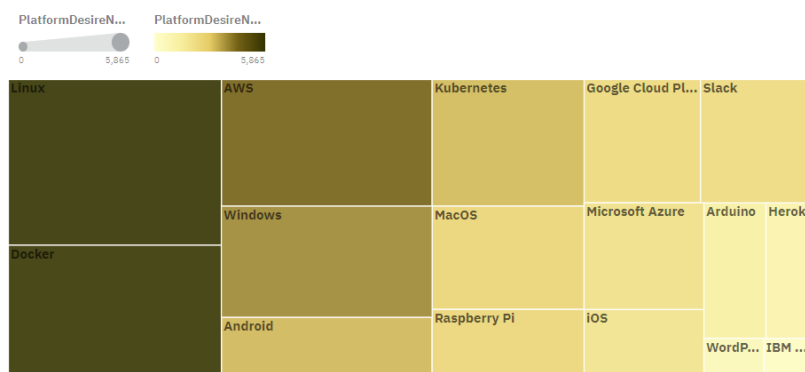
Top 10 LanguageDesireNextYear



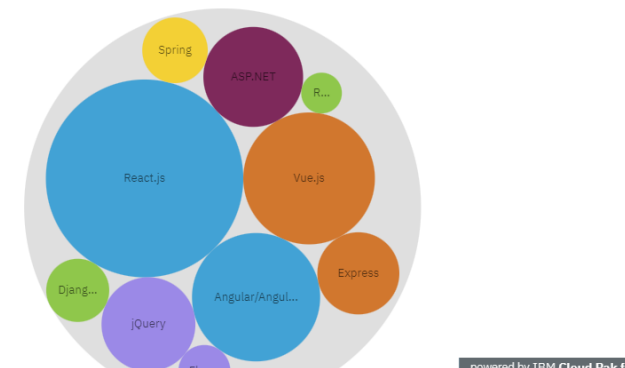
Top 10 DatabaseDesireNextYear



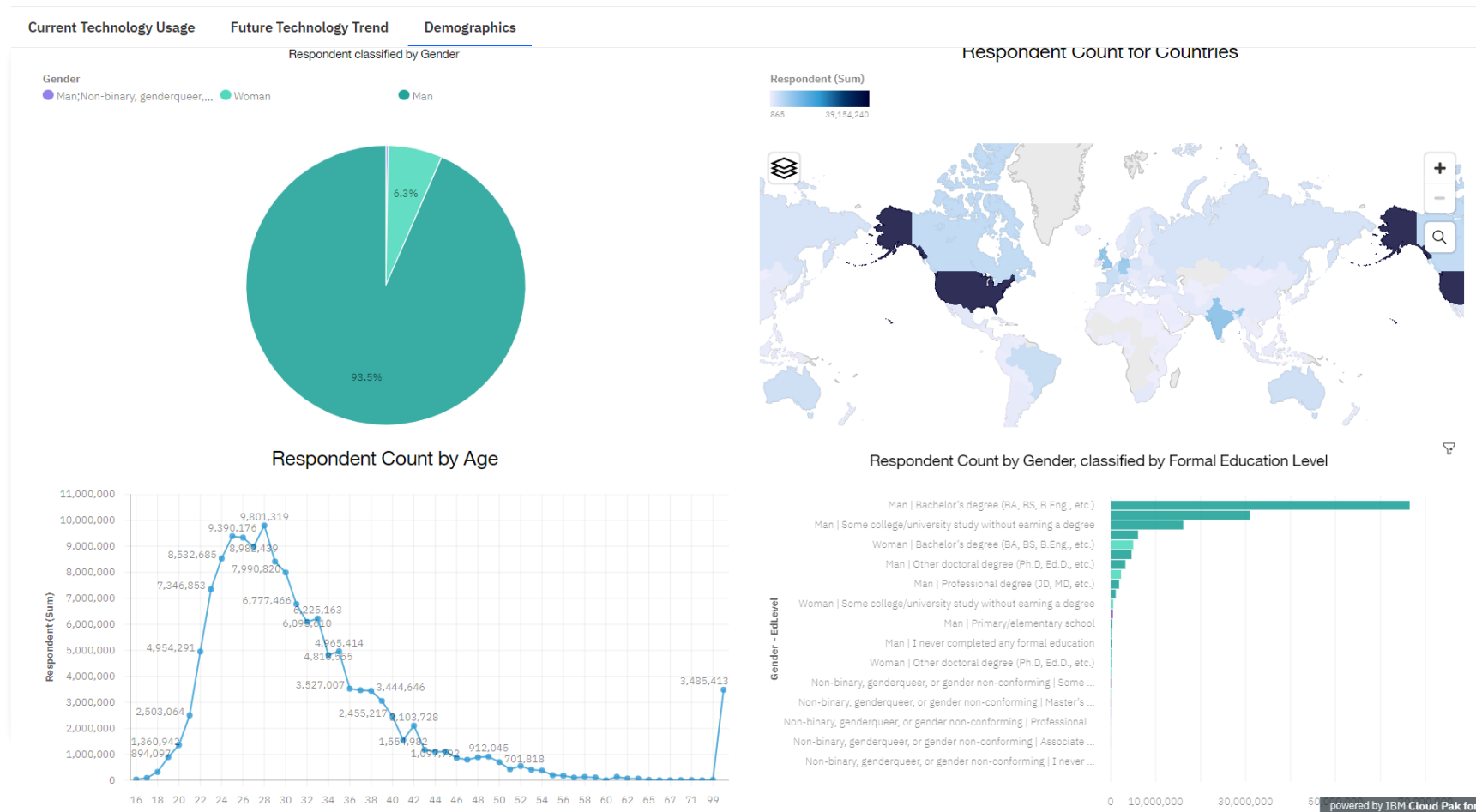
PlatformDesireNextYear



Top 10 WebFrameDesireNextYear



# DASHBOARD TAB 3

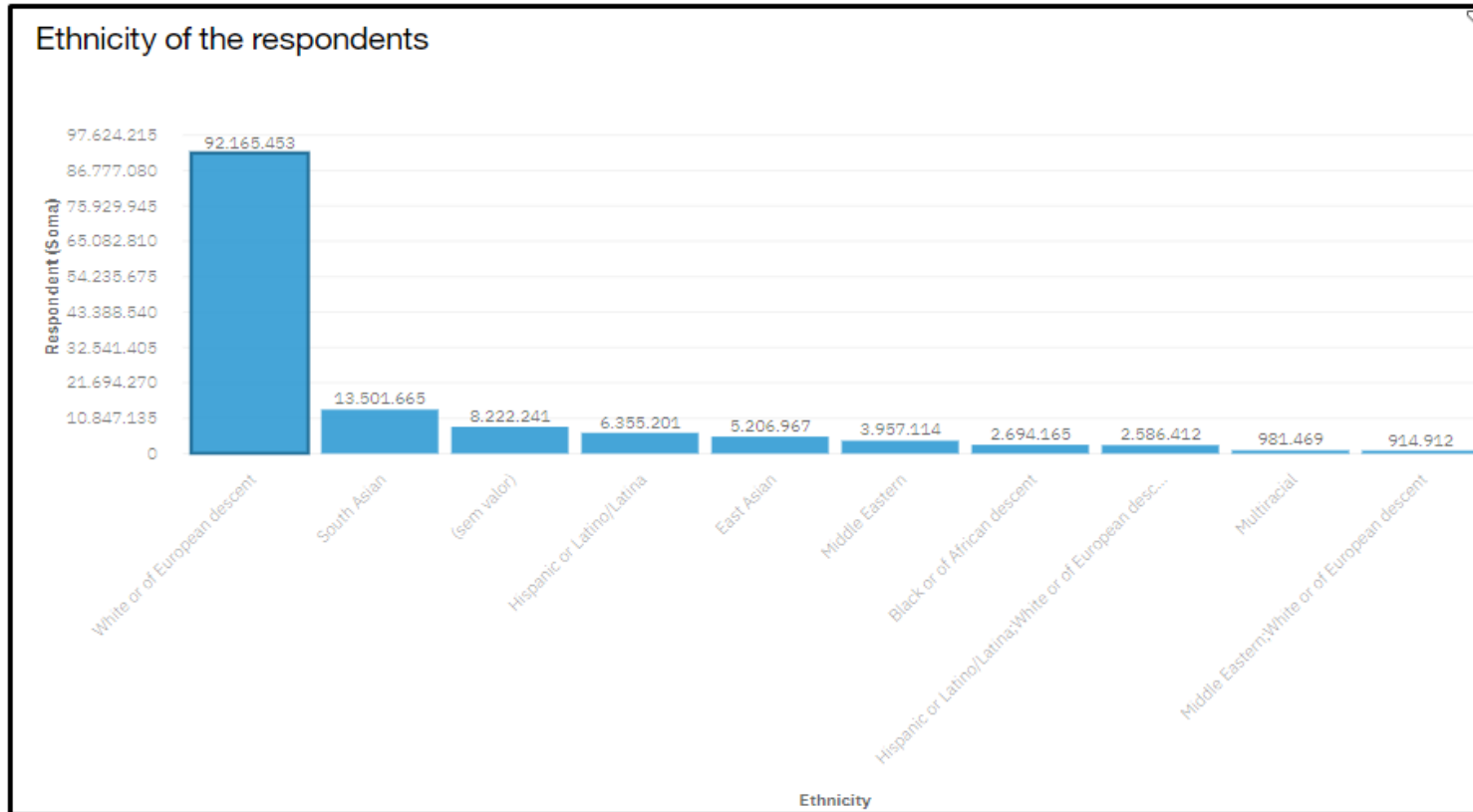


# DISCUSSION

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- With the data, we can ask ourselves what is the ethnicity of the respondents

# OVERALL FINDINGS & IMPLICATIONS



## Findings

- 67.5% of respondents consider themselves to be white or European descendent, while only 2.0% of respondents consider themselves to be black



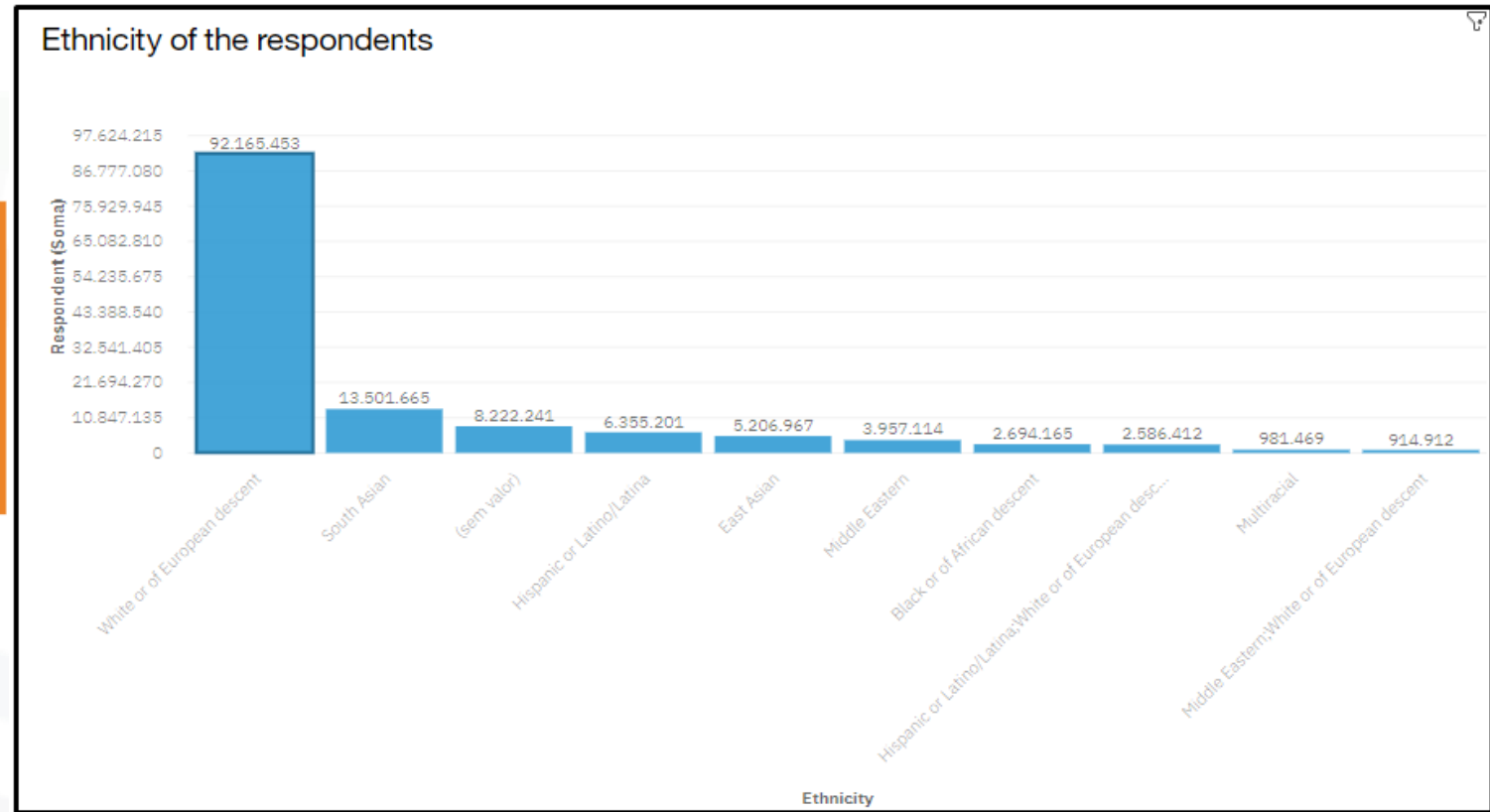
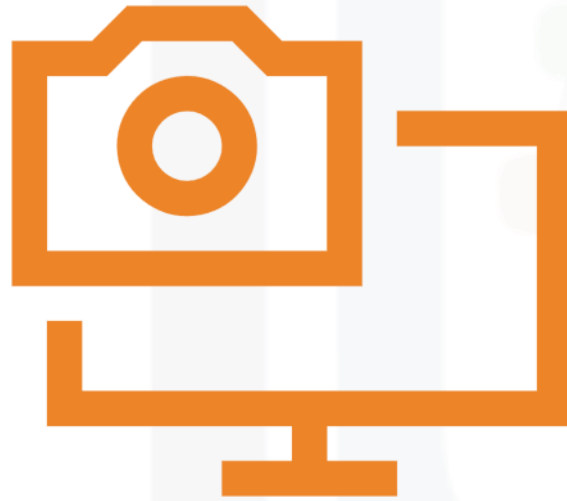
# CONCLUSION

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- The main platforms, languages and data bases are still the most requested and desired for the near future

# APPENDIX



# POPULAR LANGUAGES

In Module 1 you have collected the job postings data using web scraping in a file named “popular-languages.csv”. Present that data using a bar chart here. Order the bar chart in the descending order of salary.

