



Future Programming Skill Trends

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IBM Developer

SKILLS NETWORK 

OUTLINE



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

EXECUTIVE SUMMARY



- Collecting demand of jobs open from various technology and locations
- Analyzing the data and identify insights and trends
 - a) The top programming languages
 - b) The top databases skills
 - c) The popular IDEs
- Bringing the information together with dashboards showing current skills, future trends skills and Demographics

INTRODUCTION



- Stack Overflow's annual Developer Survey is the largest and most comprehensive survey of people who code around the world.
- Results don't represent everyone in the developer community evenly. Nearly 90,000 developers.
- To keep pace of changing technology programming is the significant to expertise in IT solutions and consultants.
 - The focus problems is:
- What are the programming/database skills in the present?
- What are the programming/database skills in the future?

METHODOLOGY



- Data contextualization and analysis goal.
- Methodology description.
- Data gathering.
- Data analysis.
- Data visualizations.
- Results presentation supported with graphs and trends.
- Discussion of overall findings and implications regarding the results previously exposed.
- Final conclusions of the carried-out research.

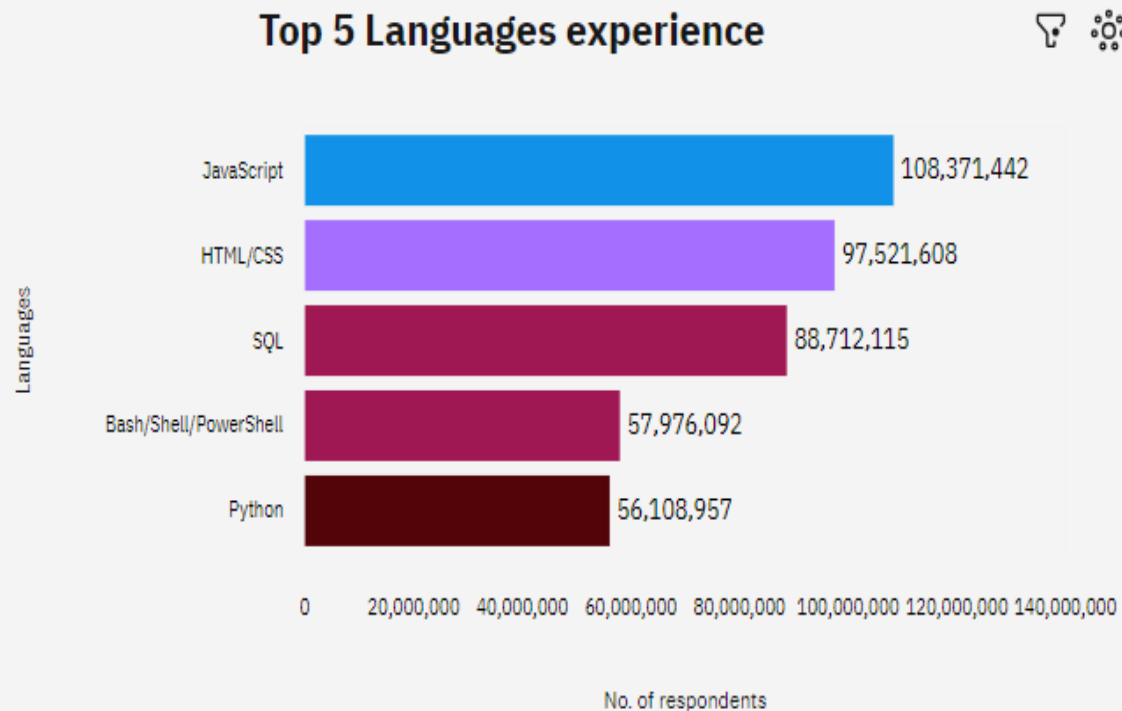
RESULTS

- Data Source : Job posting, Training portals and Surveys
- "https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBM-DA0321EN-Skills Network/Large Data/m2_survey_data.csv"
- The collected data is transferred to cleaning data and then it is applied statistical techniques to analyze before concluded all information to make dashboards showing current and next year trends.

PROGRAMMING LANGUAGE TRENDS

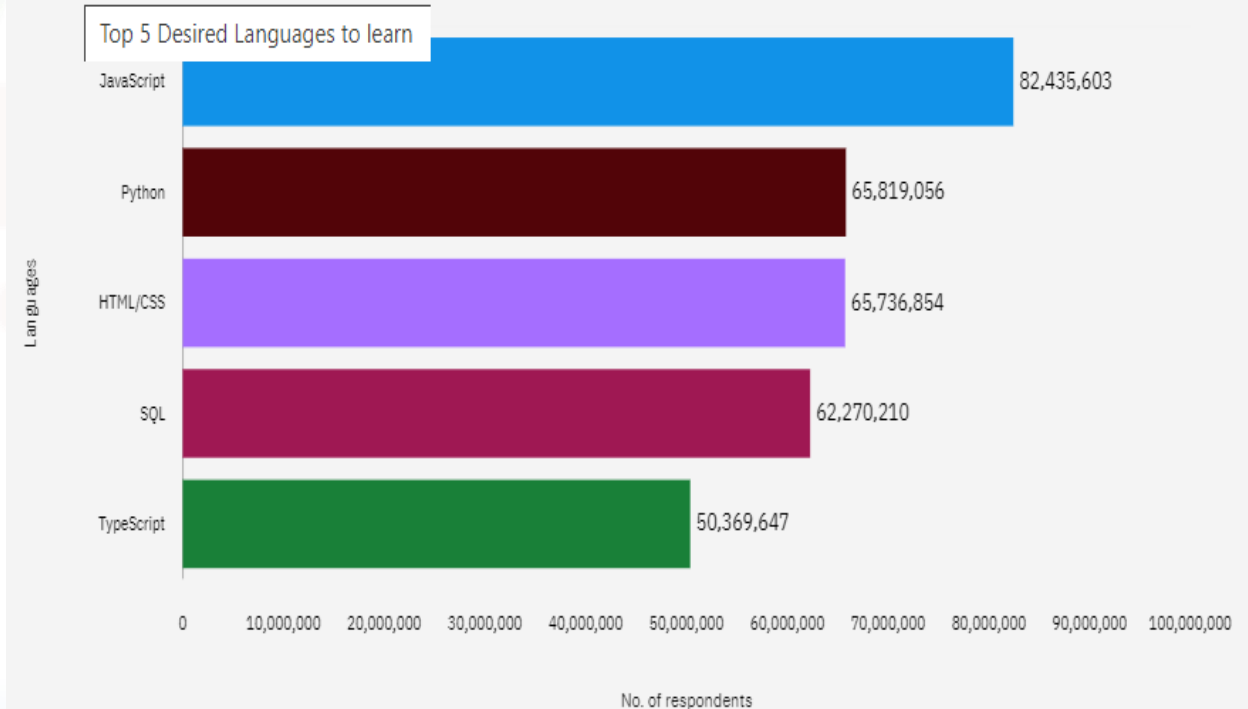
Current

Top 5 Languages experience



Next

Top 5 Desired Languages to learn



PROGRAMMING LANGUAGE TRENDS-FINDINGS & IMPLICATIONS

Findings

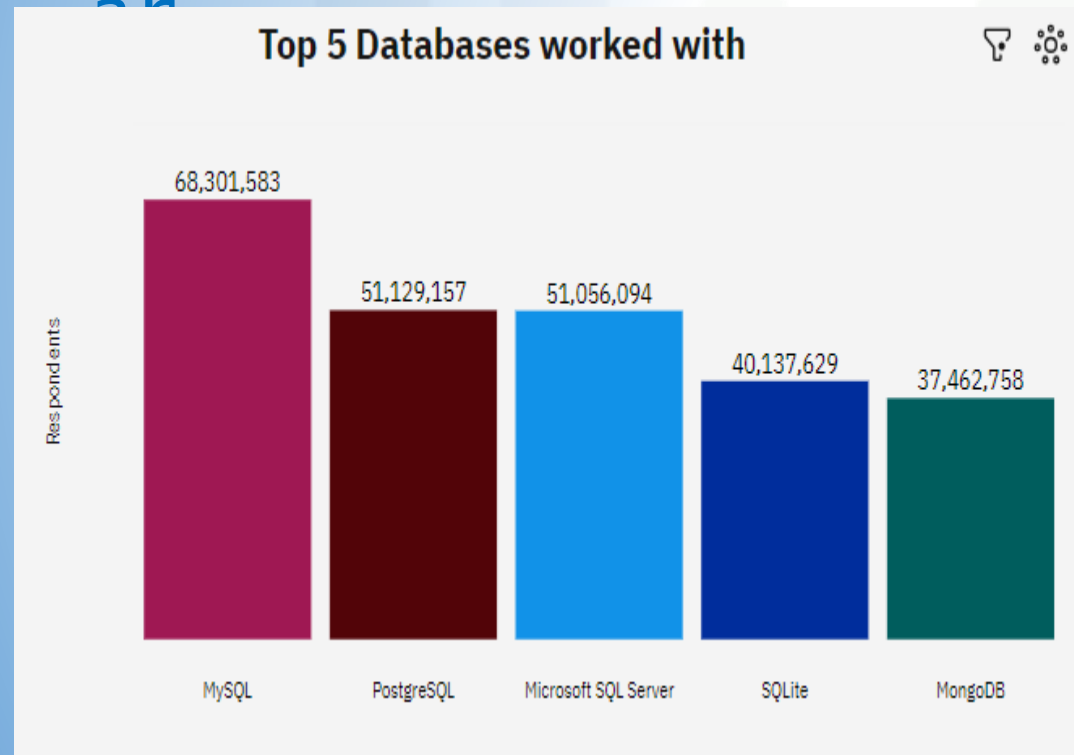
- JavaScript, HTML/CSS and SQL are at Top 3 in current year.
- Python gained popularity in desired language next year.
- PowerShell popularity fall down in coming year.

Implications

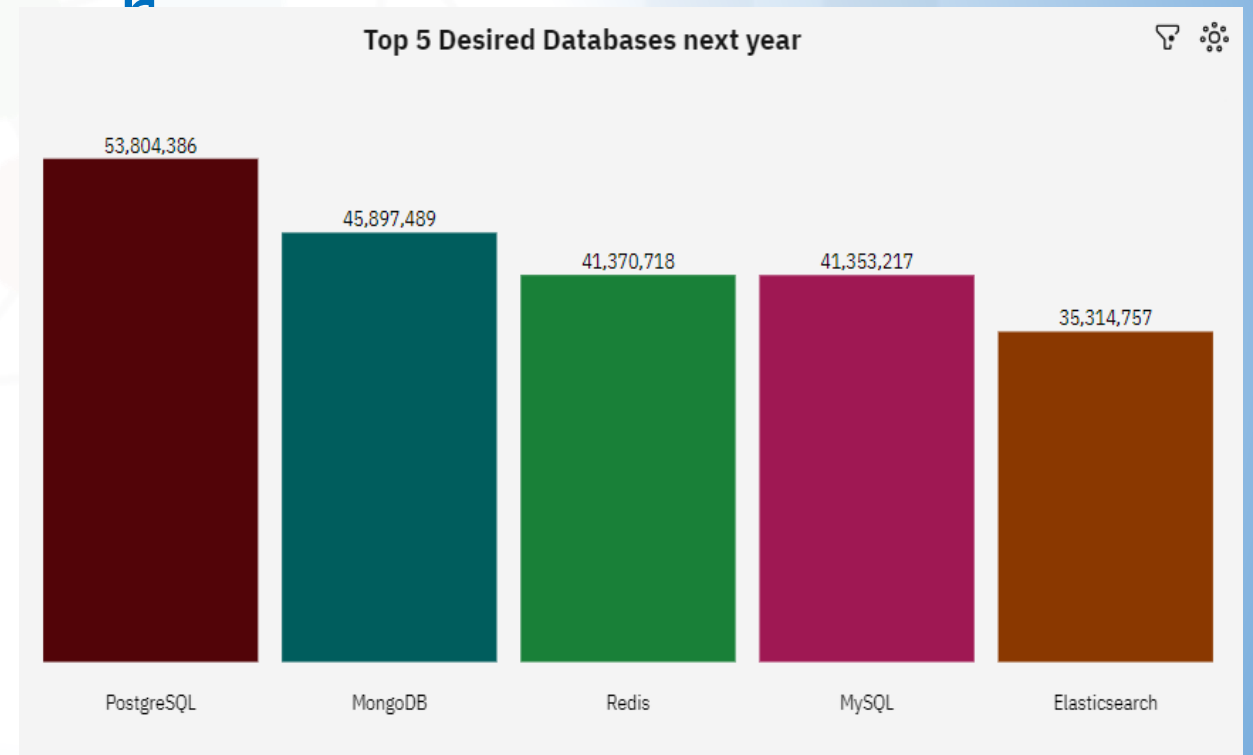
- Web Development is still in High Demand
- Python is the best choice in future as a technology.
- SQL still in high demand due to its vast application and use in Company.

DATABASETRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS- FINDINGS & IMPLICATIONS

Findings

- MySQL is top most data base used currently
- PostgreSQL and MongoDB are upcoming favorites
- Elasticsearch is also gaining popularity

Implications

- Opensource databases are still used by many.
- Other NoSQL databases are used majorly to store non relational data.
- Redis and Elasticsearch can be the future of database tech.

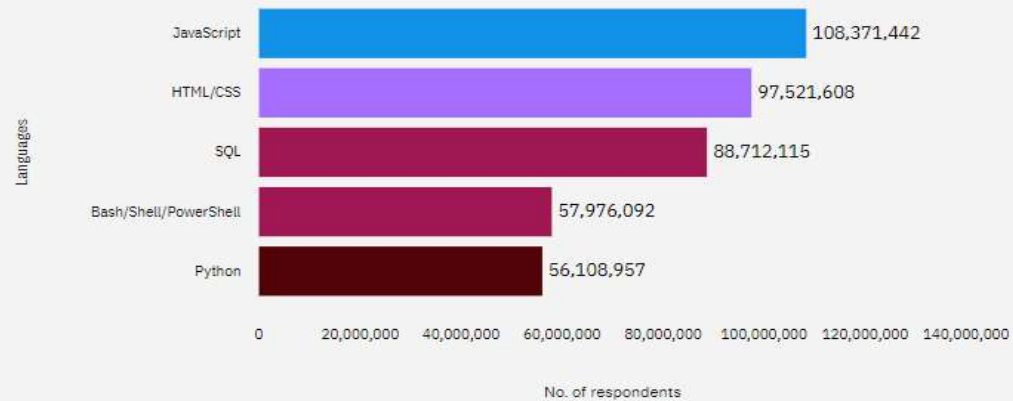
DASHBOARD



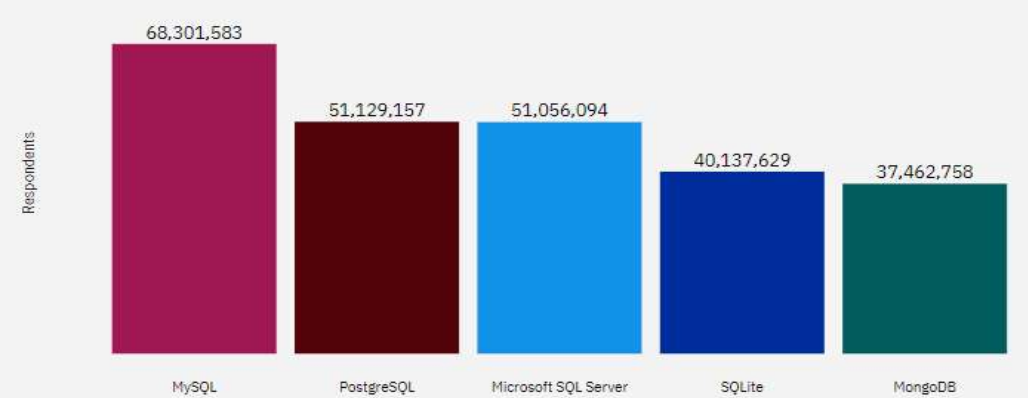
<https://github.com/ainajain02/IBM-Data-Analyst-Capstone-Project/blob/main/Capstone-Dashboards.pdf>

DASHBOARD TAB 1

Top 5 Languages experience



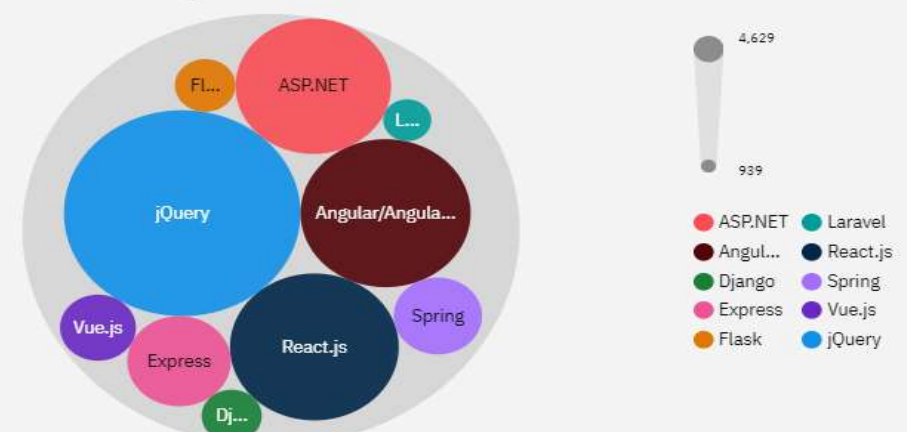
Top 5 Databases worked with



Platforms Interacted

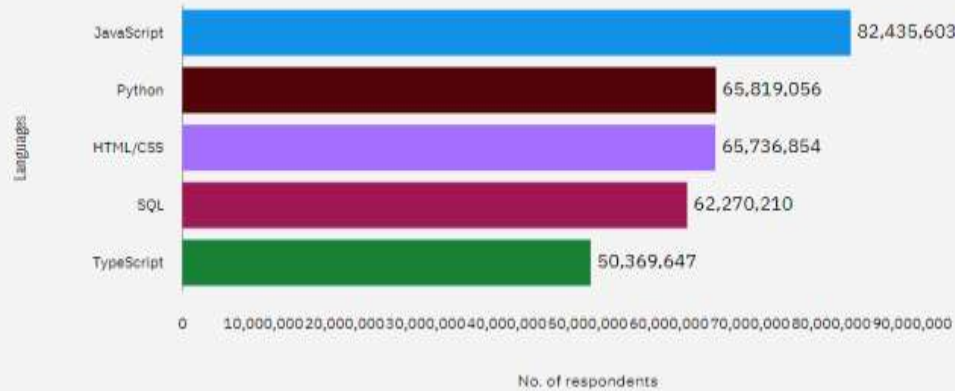


Top 10 Web Frames used

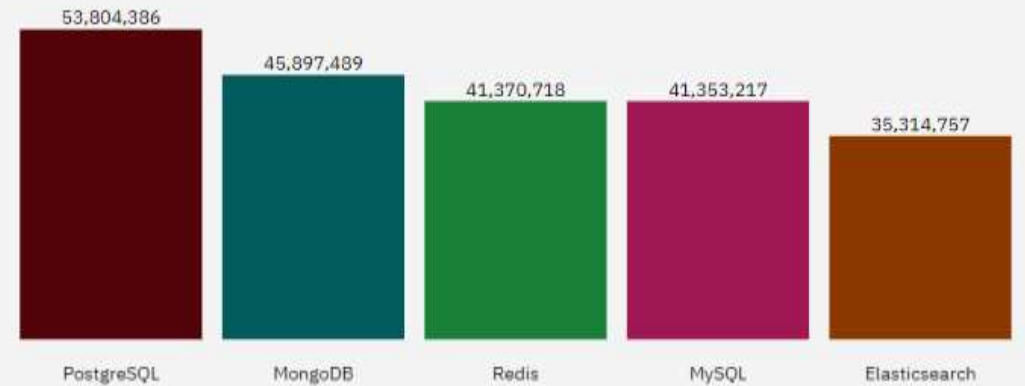


DASHBOARD TAB 2

Top 5 Desired Languages to learn



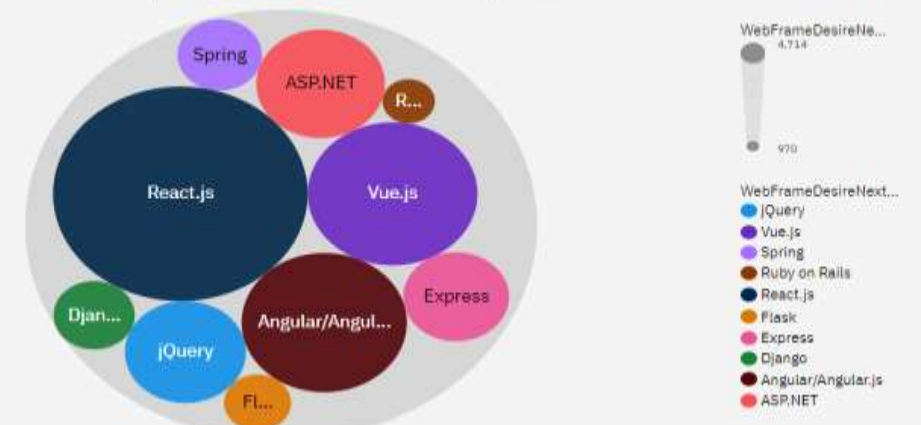
Top 5 Desired Databases next year



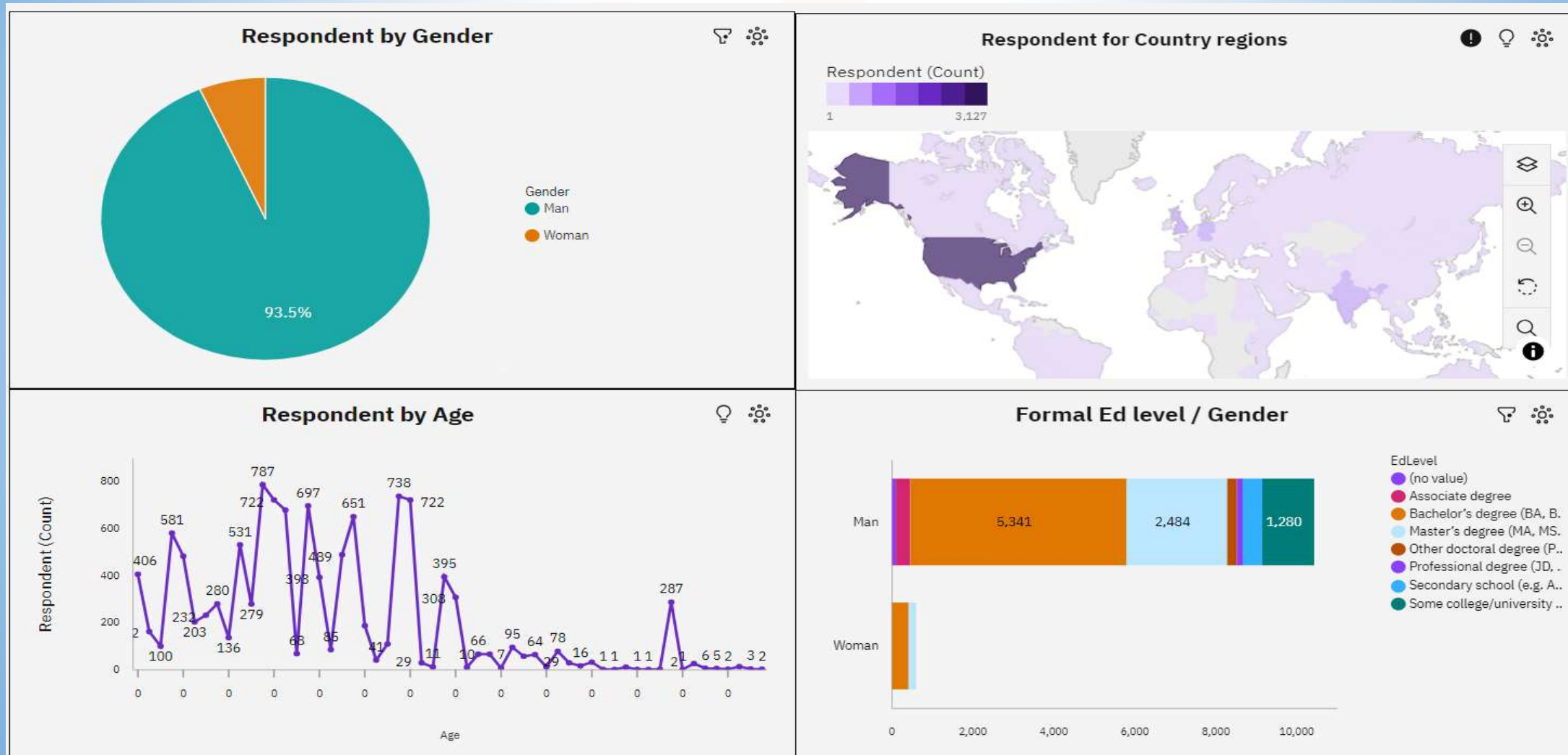
Platforms Desired



Top 10 Web Frame next year



DASHBOARD TAB 3



DISCUSSION



- Technology Trends
- Reskilling Workers
- Gender Equality
- Adaptation of new Technology
- Using Popular platforms
- Hiring new Tech. Workers

OVERALL FINDINGS & IMPLICATIONS

Findings

- By next year, JavaScript and HTML/CSS will be remained in the top 1st and 2nd
- While SQL is going to be surpassed by Python, Bash/Shell/PowerShell are not shown in the next year
- Platform Linux is the largest proportion, while windows will be replaced by Docker
- React.js is predicted to be the highest preference of Web Frame in the next year instead of jQuery
- By gender, men is shown response more than women which the most number presented in Russia Federation and age around 28 who have Bachelor's degree

Implications

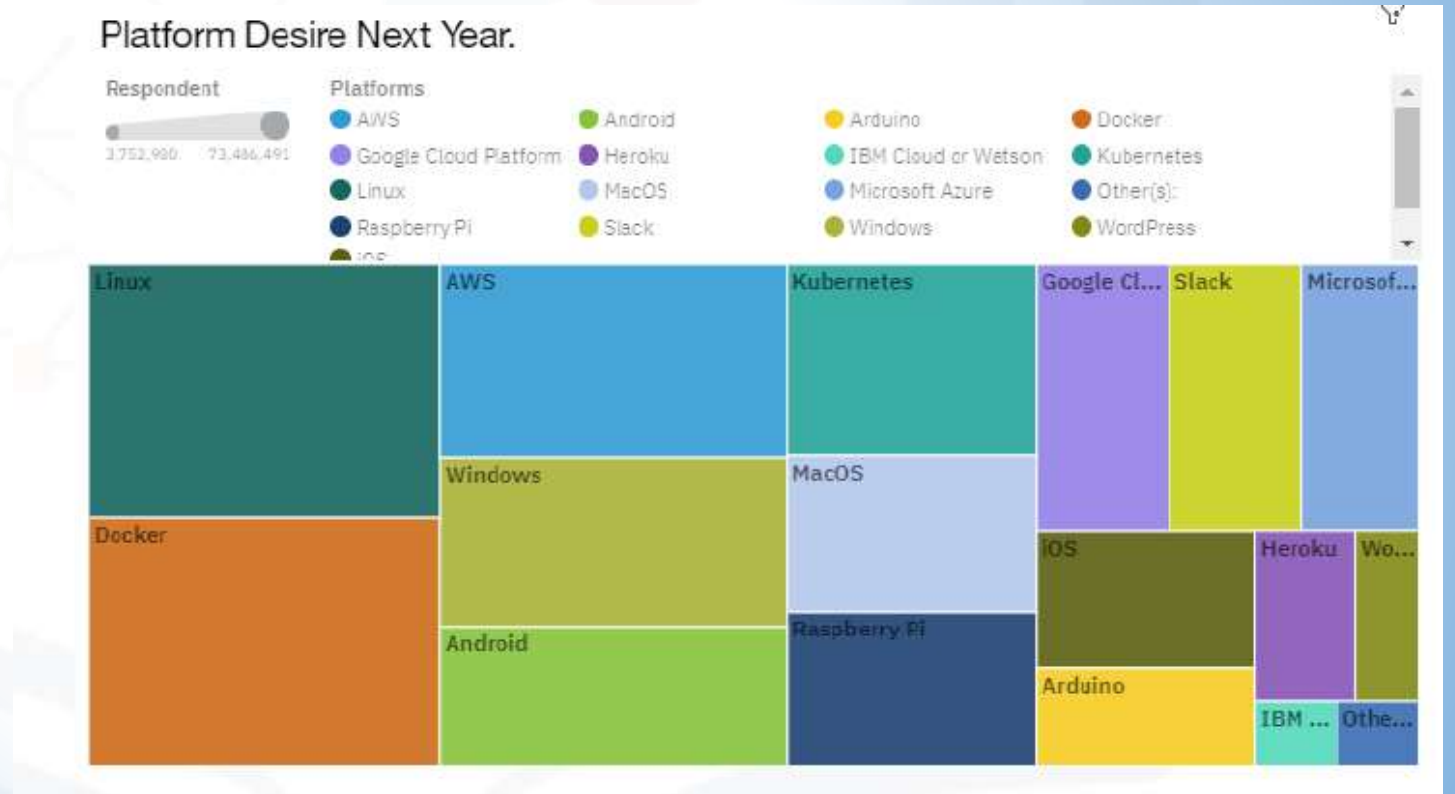
- JavaScript and HTML/CSS will be continued popular
- python is going to be more interested
- SQL servers will be required but the most popular database is expected to be PostgreSQL
- Docker is more preferred as much as Linux
- The demand of jQuery is decreasing
- It is assumed that The large number of young Russian men who have Bachelor's degree tend to response in the analysis

CONCLUSION

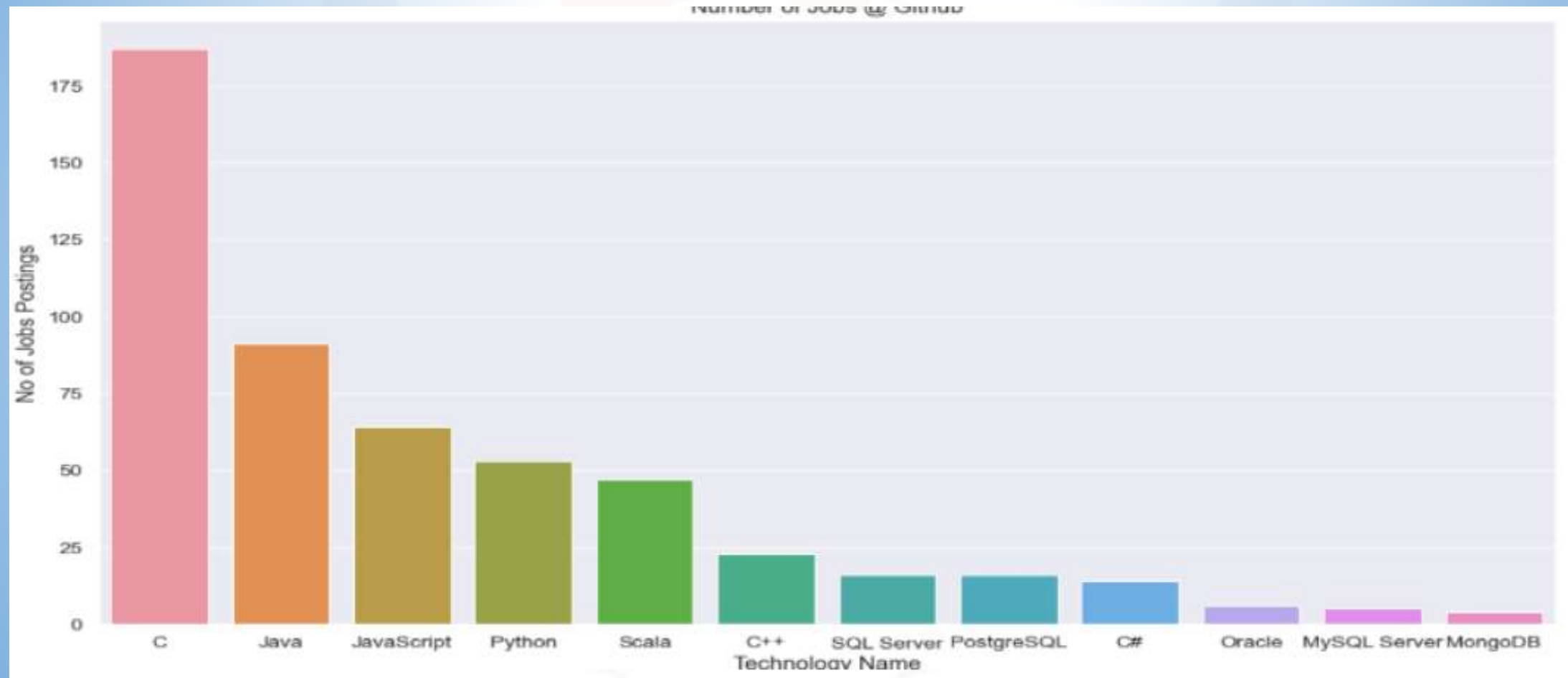


- HTML/CSS is estimated to stay popular the same in the next year
- PostgreSQL will be the most demand of database
- Linux platform is predicted to stay the same at 1st requirement
- The most percentage of Web Frame will be occupied by React.js
- Men are interested in IT skills more than women

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES

