



Technology Trends & Analysis Presentation

OUTLINE



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

EXECUTIVE SUMMARY



- Trends in programming languages and databases
- Demographics survey
- Technological gap in countries
- Gender gap in jobs

INTRODUCTION



About:

Analyzing the trends in software development

Purpose:

- Identify skill requirements for future
- What are the top programming languages in demand?
- What are the top database skills in demand?
- What are the popular IDEs

Audience: Human Resource and IT Head

METHODOLOGY



- **Data Collection Sources**

- Stack Overflow Developer 2019 Survey
- GitHub Job Postings
- Programming Languages Annual Salary

- **Data Exploration**

- **Data Cleaning**

- **Data Visualization**

- **Presentation**

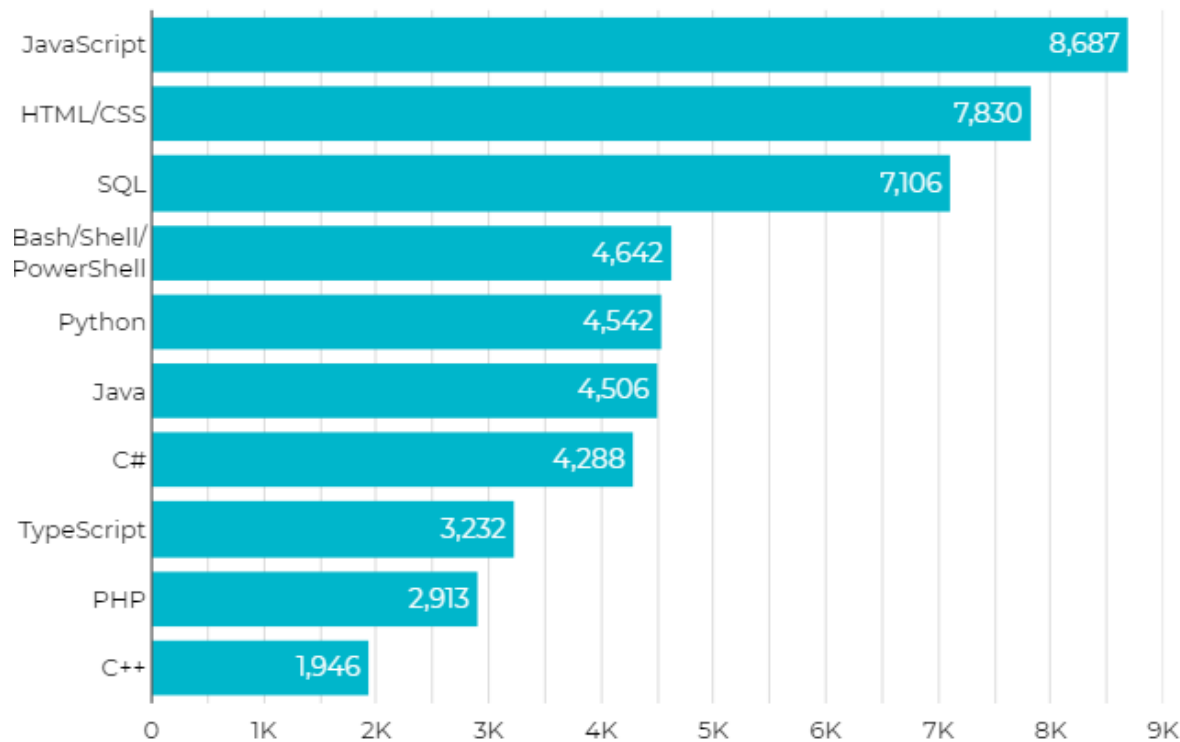
RESULTS

| | Respondent... | LanguageWorkedWith | LanguageDesireNextYear | DatabaseWorkedWith | DatabaseDesireNextYear |
|-----|---------------|-----------------------|------------------------|--------------------|------------------------|
| 1. | 25142 | R | | | |
| 2. | 25142 | Python | | | |
| 3. | 25142 | C | C | | |
| 4. | 25142 | Go | Python | | |
| 5. | 25142 | C++ | C++ | | |
| 6. | 25142 | HTML/CSS | R | | |
| 7. | 25142 | PHP | | | |
| 8. | 25142 | Bash/Shell/PowerShell | Bash/Shell/PowerShell | PostgreSQL | PostgreSQL |
| 9. | 25141 | C# | F# | | Microsoft SQL Server |
| 10. | 25141 | JavaScript | | | |
| 11. | 25141 | TypeScript | | | |
| 12. | 25141 | HTML/CSS | | | Redis |
| 13. | 25141 | Java | | | |
| 14. | 25141 | Python | | | |
| 15. | 25141 | SQL | | | |

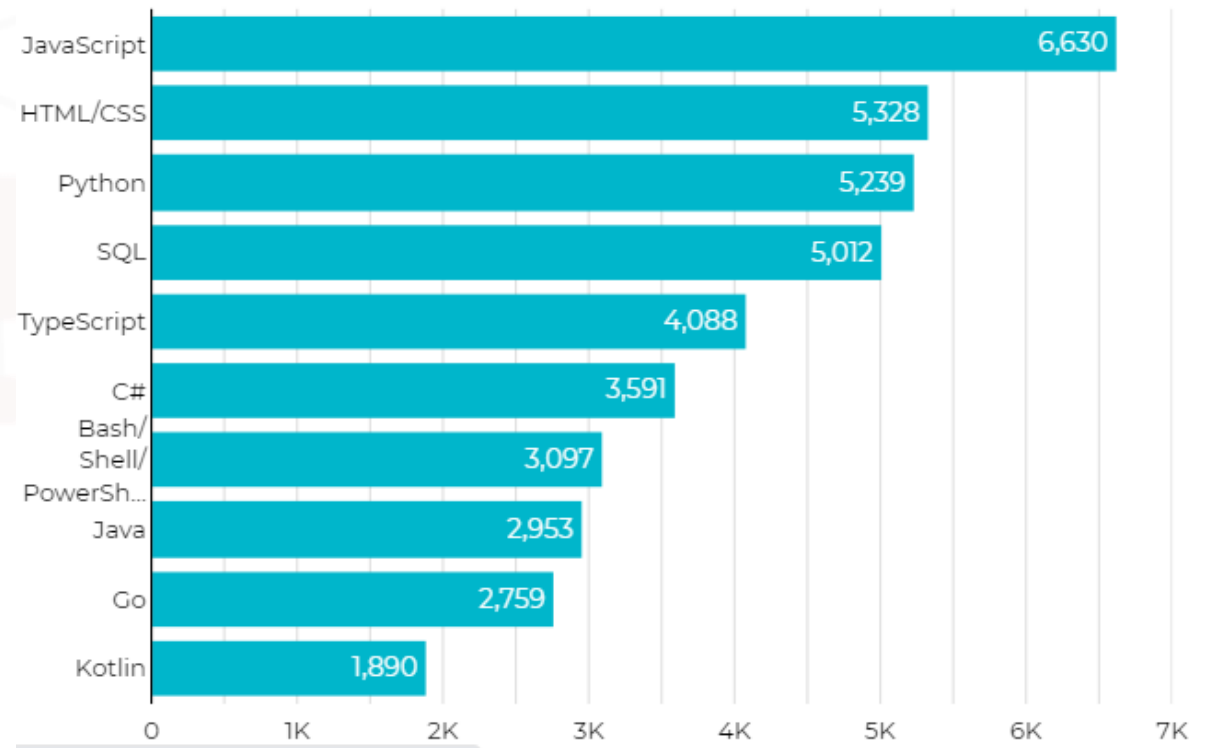
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PROGRAMMING LANGUAGE TRENDS

Top 10 Language Worked With



Top 10 Language Desire Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

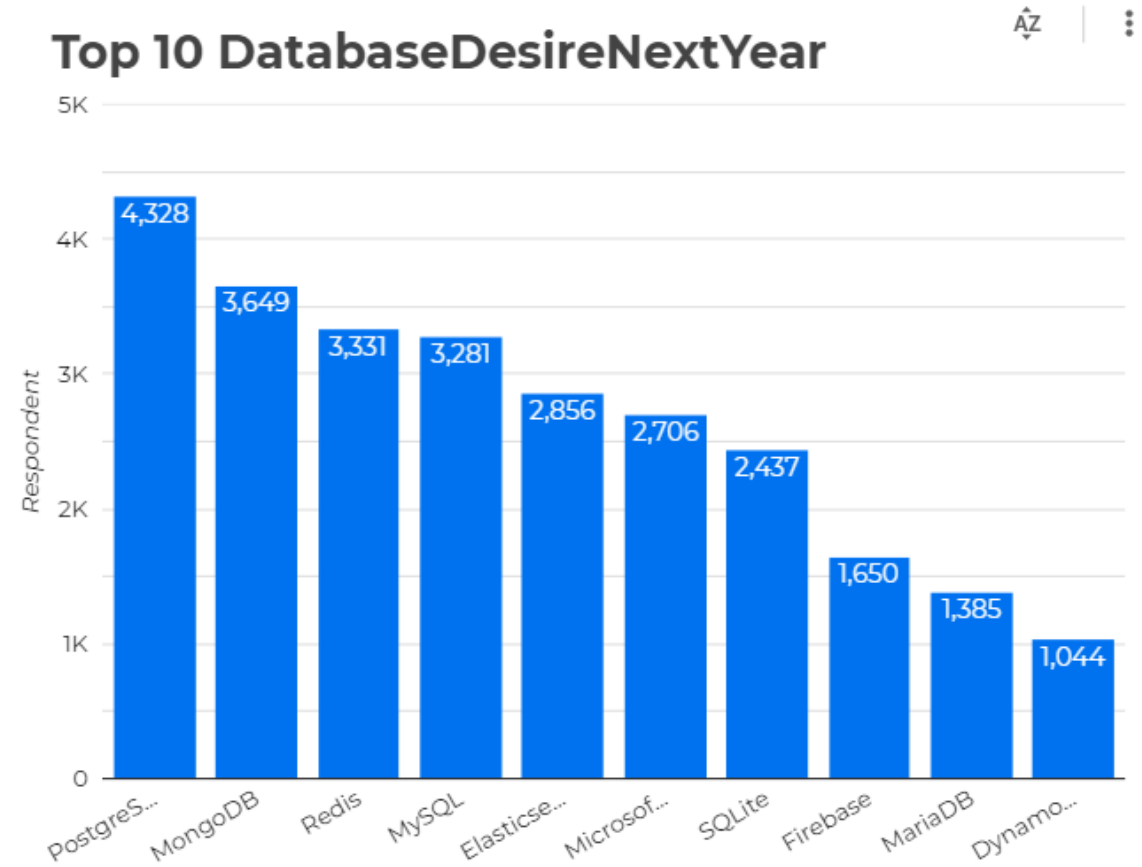
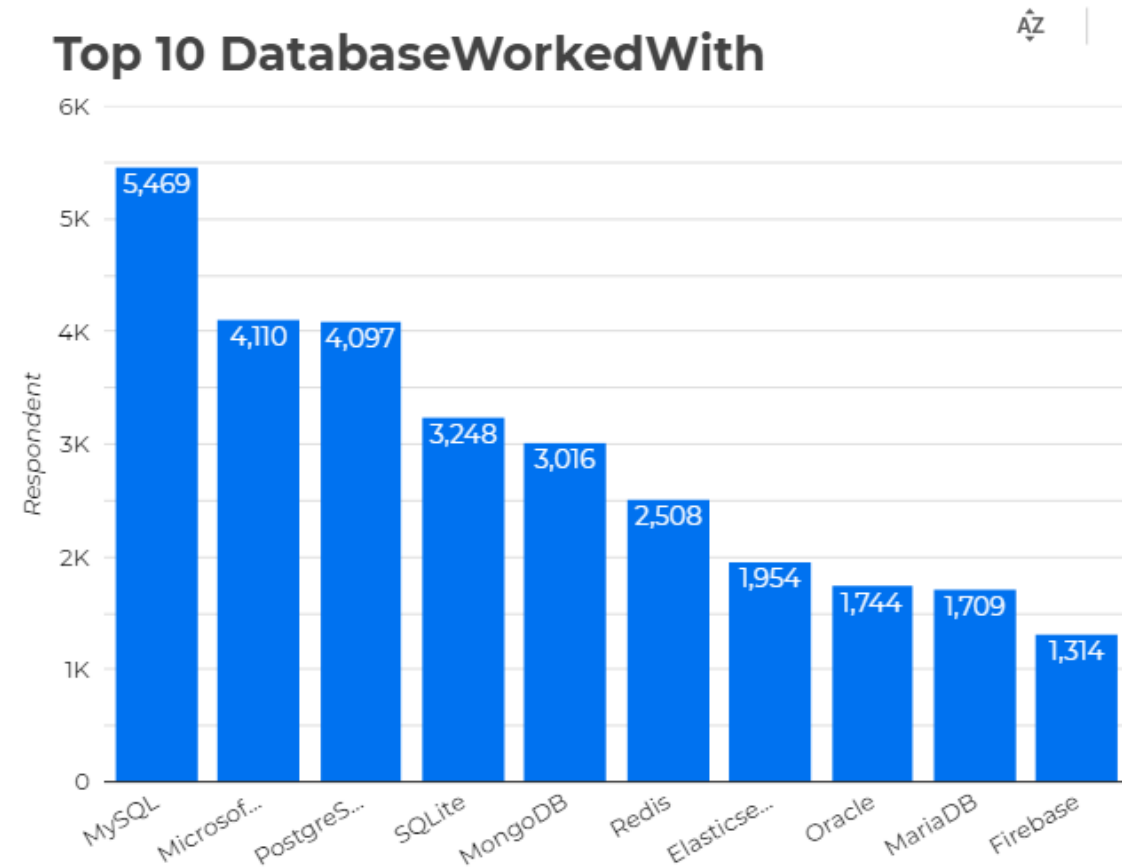
Findings

- JavaScript, HTML/CSS, SQL are top 3 this year
- Python and Typescript becoming popular next year
- PowerShell edged out in next year

Implications

- Web development are still in high demand
- Big Data technology in companies still requires SQL
- With AI and ML in rising demand, Python is best choice

DATABASE TRENDS



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- MySQL most popular
- Behind is Microsoft SQL
- MongoDB and Redis are upcoming favorites
- New kid on the block: Elasticsearch

Implications

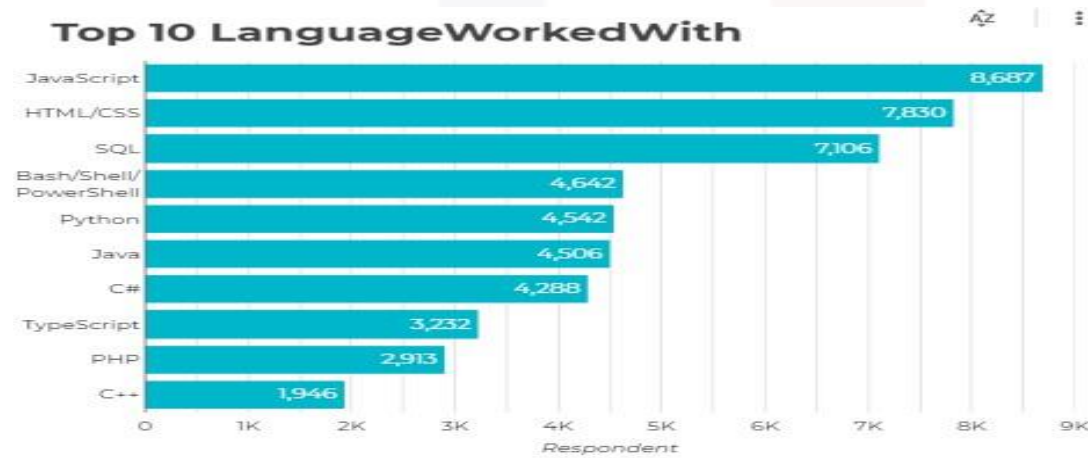
- Open source databases are still preferable in companies
- NoSQL databases will make an impact for storing non relational data
- Redis supports abstract data types
- Pre tuned search to website, app, or ecommerce store

DASHBOARD

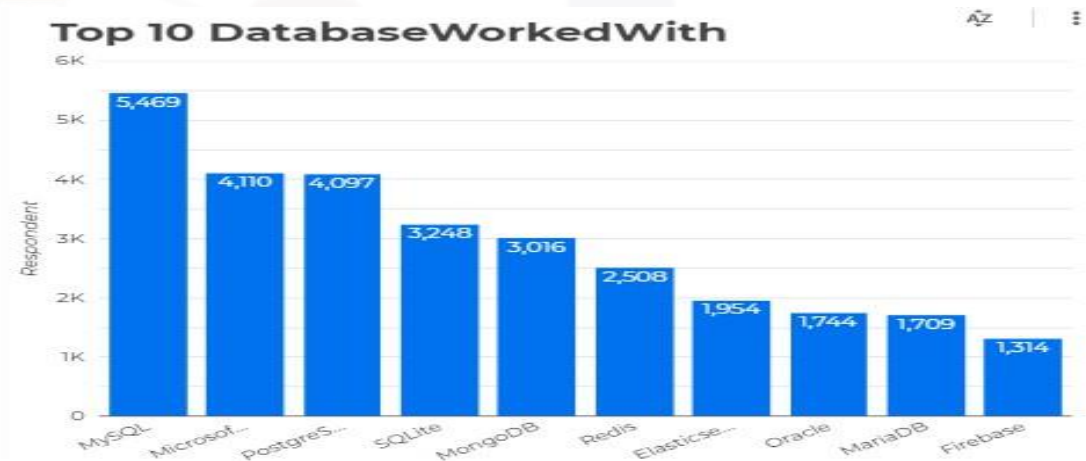


<https://datastudio.google.com/reporting/a55d5713-edcb-4e2a-8a62-c17553a7ea05>

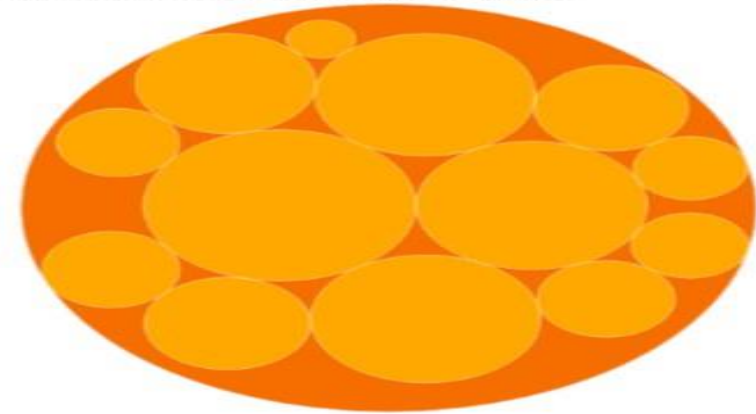
DASHBOARD TAB 1



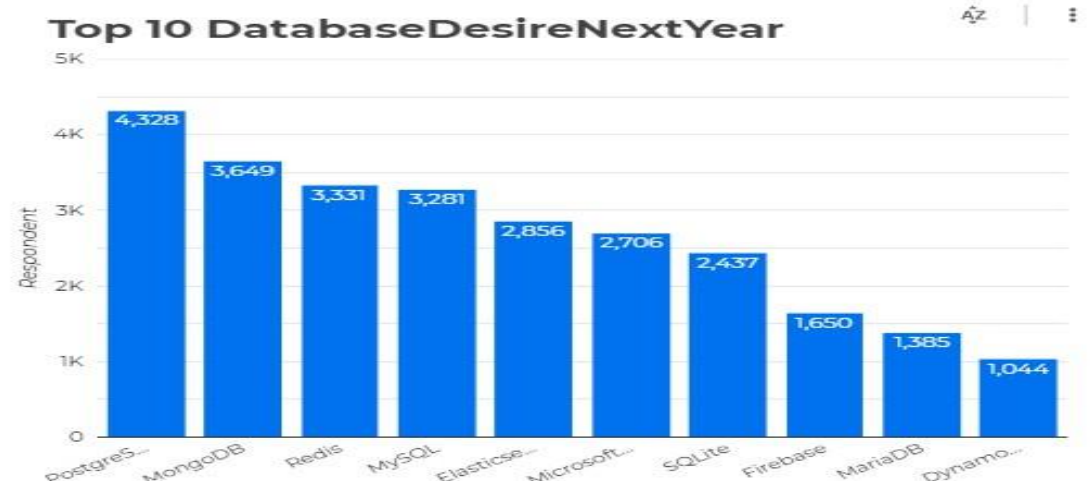
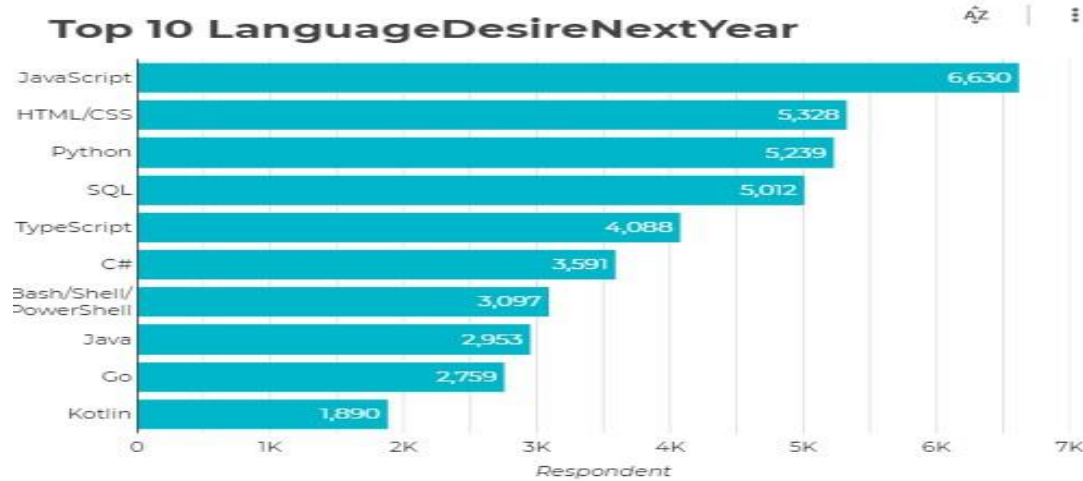
PlatformWorkedWith.



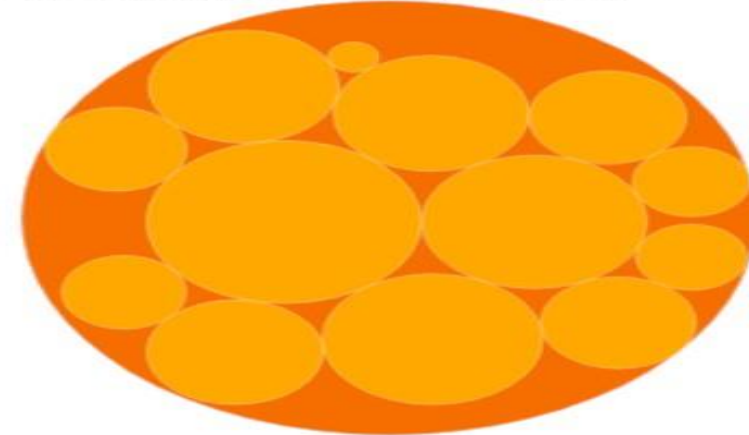
Top 10 WebFrameWorkedWith



DASHBOARD TAB 2

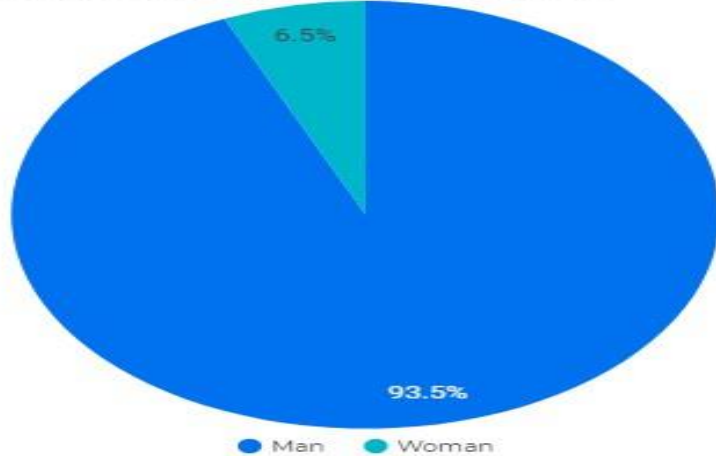


Top 10 WebFrameDesireNextYear



DASHBOARD TAB 3

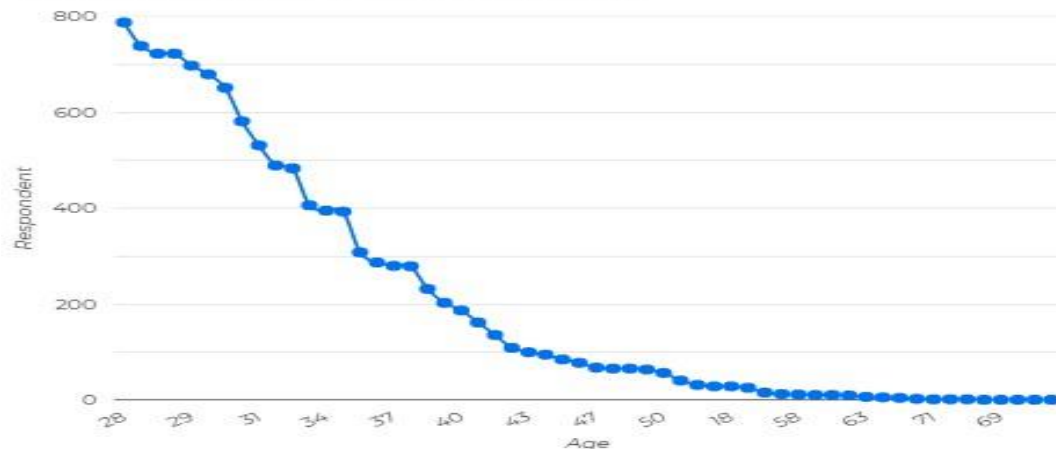
Respondent classified by Gender



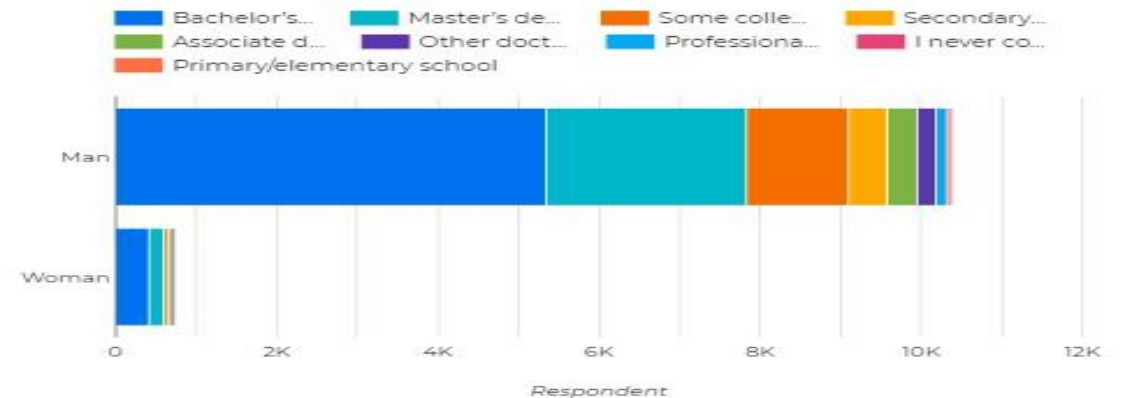
Respondent Count for Countries.



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



- Technology Trends now and future
- Training and Reskilling workers
- Females participation in Technology field
- Bridge divide of technology gaps in developing countries
- Eliminate age and education discrimination in employment

OVERALL FINDINGS & IMPLICATIONS

Findings

- Fast changing technology every year
- Concentration on several countries like USA and India
- Gender gap in technology jobs
- Platforms like Docker and AWS are growing

Implications

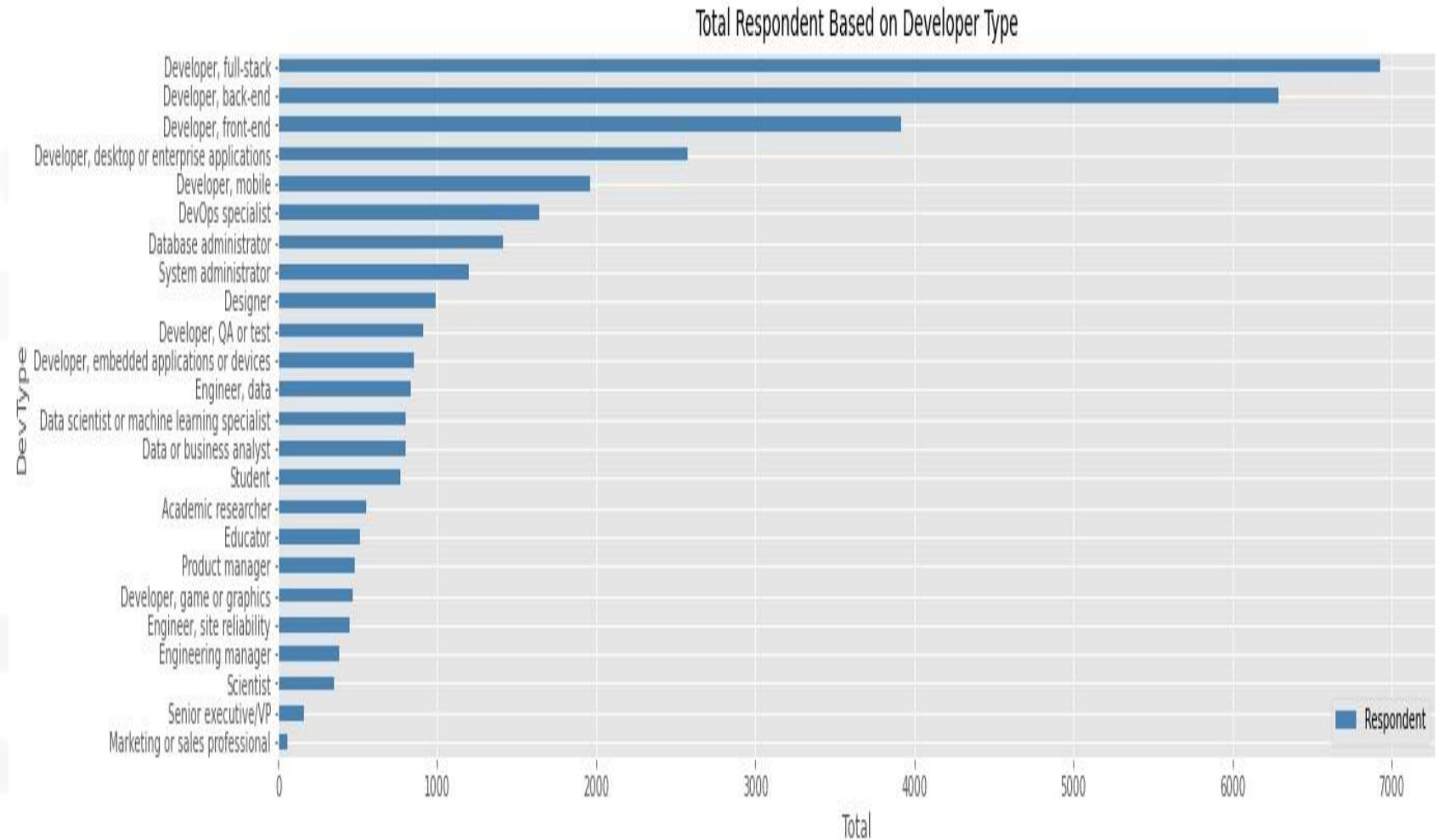
- Companies need to be flexible and adjust to rapid changes
- Need to spread technology out to lagging countries
- Impact of job hiring's
- Shift to faster app deployments and cloud services in future

CONCLUSION

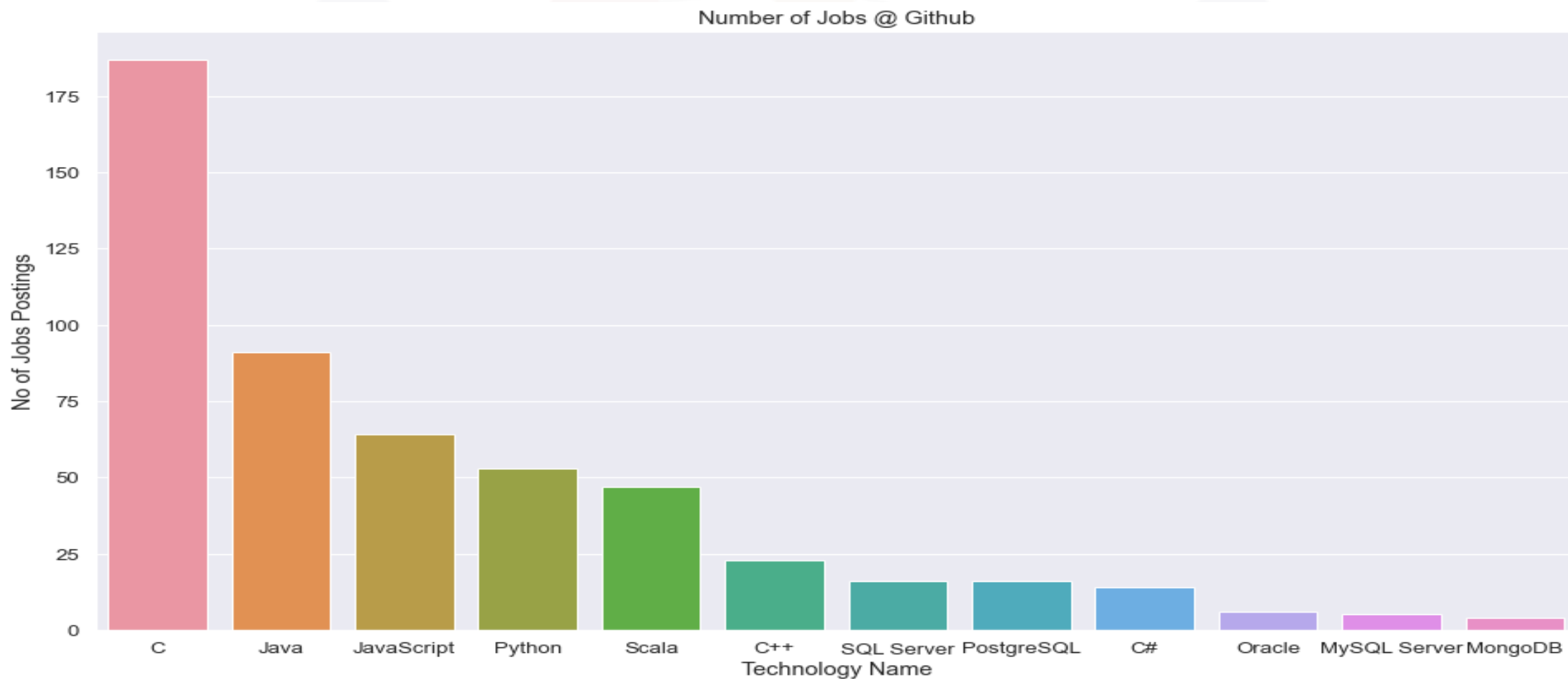


- Technology Trends for current and next year
- Programming Languages, Database and Platform overview
- Demographics overview
- Actions to be taken
- In future, incorporate Machine Learning to predict trends and salaries

APPENDIX



GITHUB JOB POSTINGS



POPULAR LANGUAGES

