



Analysis of Trends for Future Skill requirements

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OUTLINE



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EXECUTIVE SUMMARY



- Current Technology usage
 - Languages
 - Databases
 - Platforms
 - Web-Frame
- Future Technology trends
 - Languages
 - Databases
 - Platforms
 - Web-Frame
- Demographics for current usage of technologies
 - Gender gaps
 - Country gaps
 - Age distribution

INTRODUCTION



- Analysis of current software & web-development technologies and finding emerging technologies in this domain which will drive the market in near future
- This report can be helpful to Students, Job-seekers, Tech-skill educators, HRs and various other categories of audience
- Benefits which reader of this report can gain but not restricted to:
 - Shortlist and identify top current & emerging technologies in demand
 - Identifying emerging countries , which can be a great market for programmers & developers
 - Places to focus as an HR executive to maintain uniformity in a Tech-organization

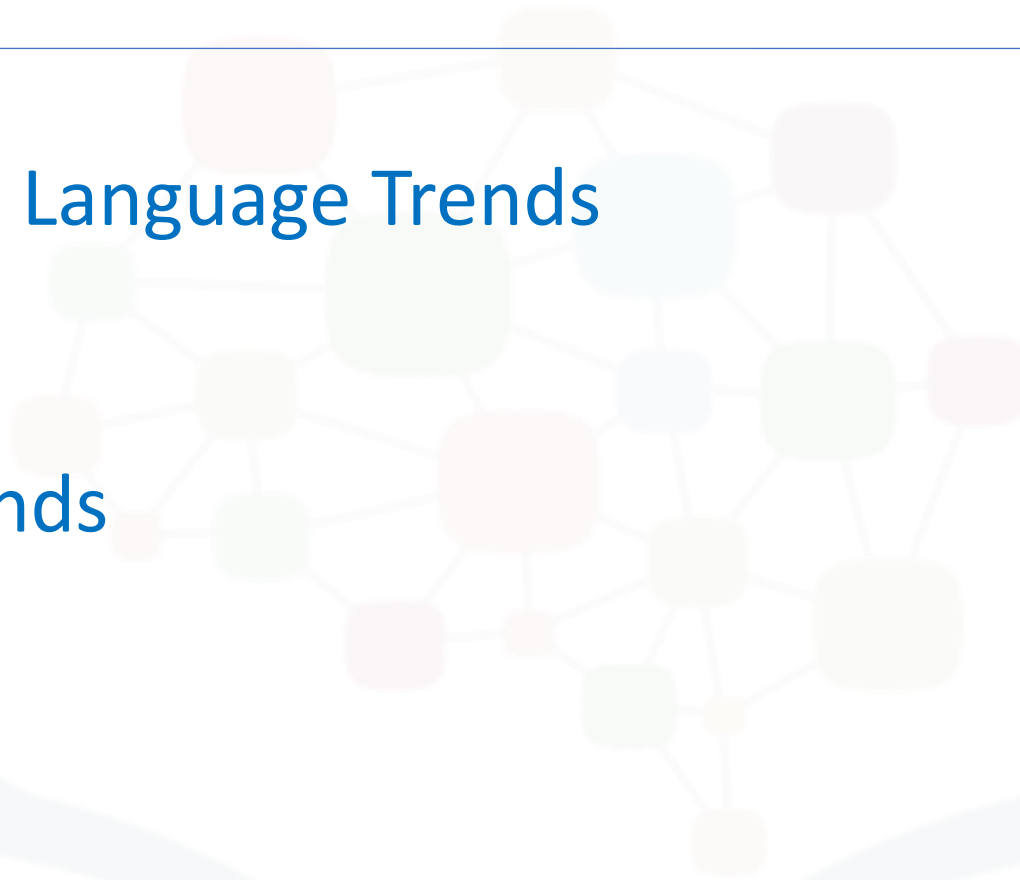
METHODOLOGY



- Datasets used
 - Kaggle's dataset for Jobs on Naukri.com
 - Salary survey data for popular programming languages
 - Stack Overflow Developer Survey 2019 data
- Data importing
 - Collecting Data Using API
 - Collecting Data Using Web-scraping
 - Importing data using PANDAS from .csv files & databases using SQL queries
- Data Wrangling
- Exploratory Data Analysis
- Data Visualization & Dashboards

RESULTS

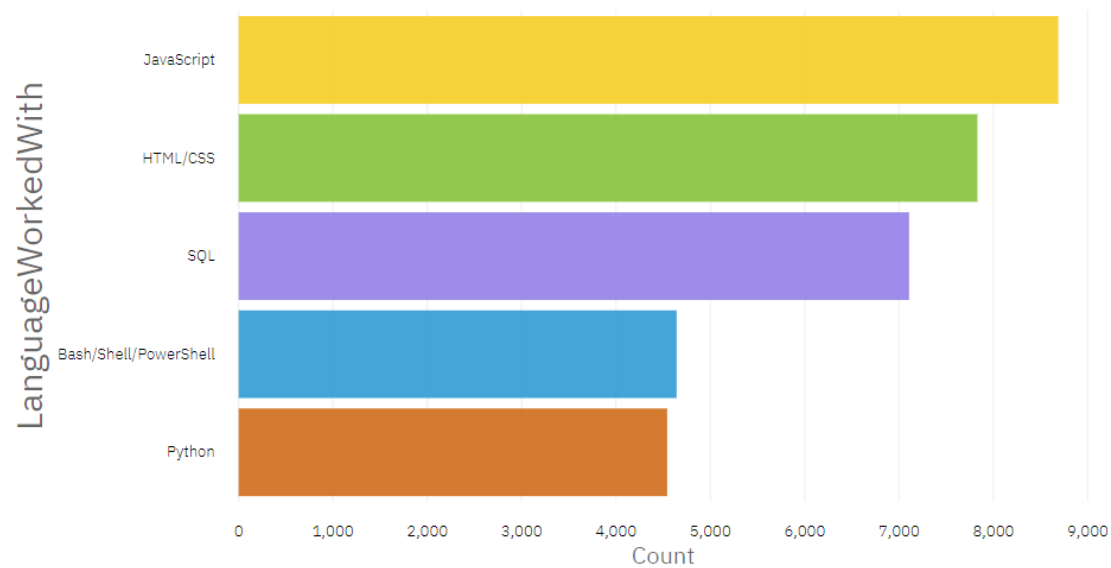
- Programming Language Trends
 - Current
 - Future
- DataBase Trends
 - Current
 - Future
- Dashboards



PROGRAMMING LANGUAGE TRENDS

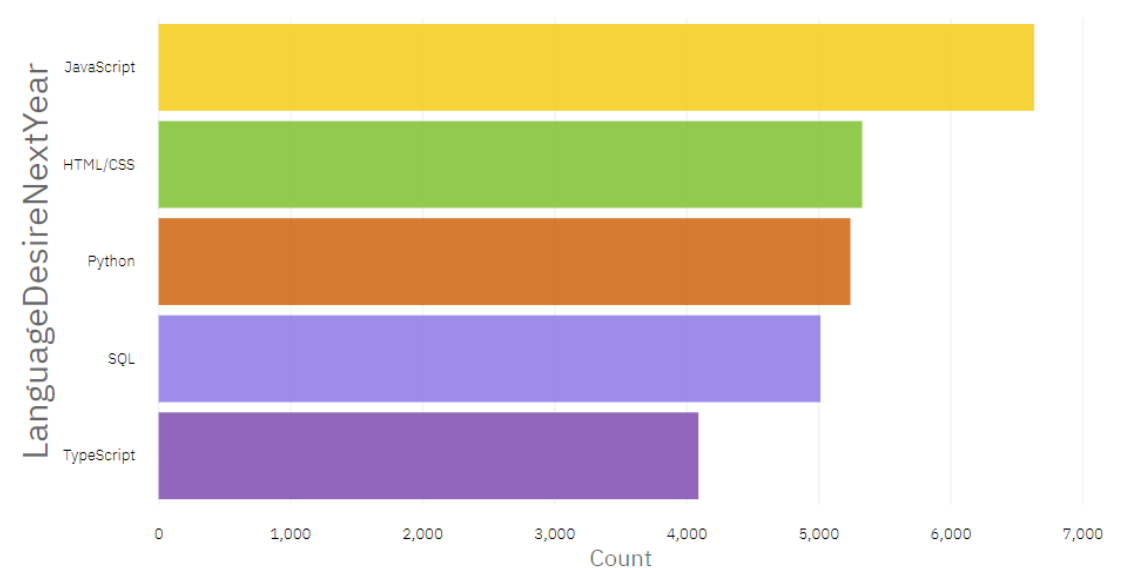
Current Year

Top 5 programming Languages



Next Year

Top 5 programming Languages



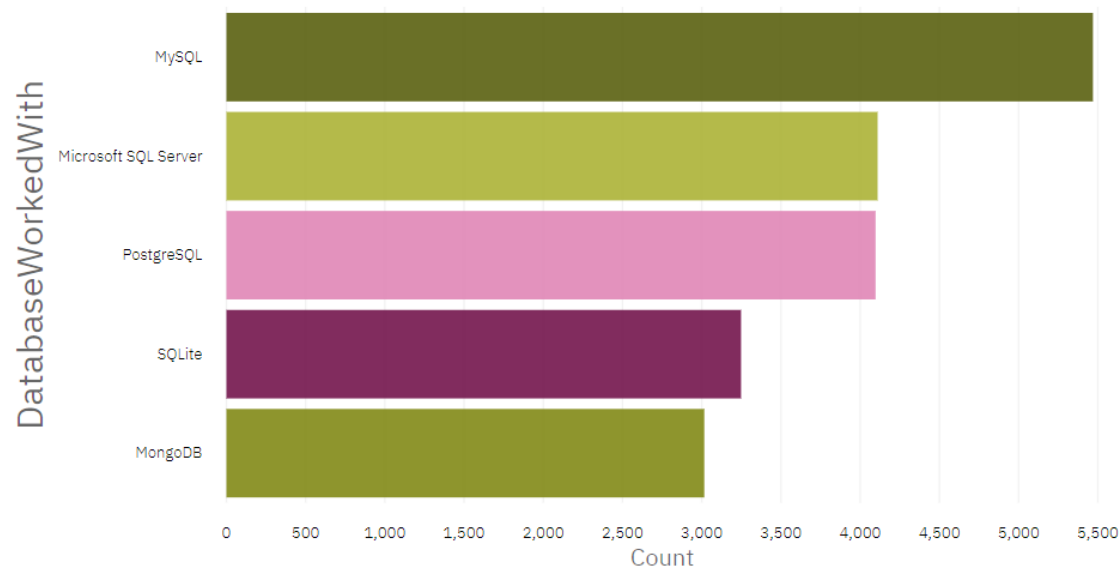
PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings	Implications
JAVASCRIPT & HTML/CSS are and will continue to be top preferred languages to work with	Market continues to be dominated by Web-Developer jobs and it will be the same in near future
PYTHON has found itself jumped in rankings to 3 rd desired language by developers	PYTHON is one of the fastest emerging technologies as the demand for AI & ML is rising in the market
SQL continues to be one of the most sought-after language	Demand for SQL will continue as the emerging technologies are highly data-driven
BASH/SHELL/POWERSHELL doesn't find themselves in top-5 list for future	BASH/SHELL/POWERSHELL can't cater to the emerging technologies like Big-Data, IOTs etc.
TYPESCRIPT has made its entry to top-5 list	TYPESCRIPT is gaining popularity as the demand for web-developers continues to surge

DATABASE TRENDS

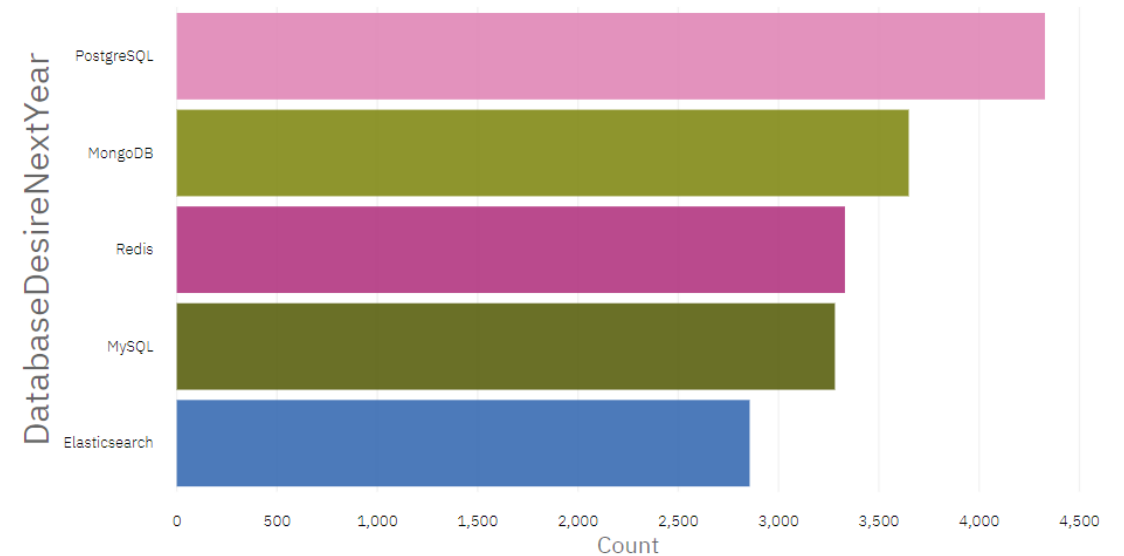
Current Year

Top 5 DataBases



Next Year

Top 5 DataBases



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings	Implications
MYSQL & POSTGRES SQL find themselves in top-5 list for current usage as well as in future	Open-source databases are most preferred in industry
MICROSOFT SQL SERVER is one of the top used database but isn't included in desired databases list	Enterprise pricing for MICROSOFT SQL SERVER may be beyond what many organizations can afford
MONGODB climbs the ladder to 2 nd spot for most desired database	Advancement in Cloud-computing has promoted use of NoSQL databases like MONGODB
REDIS has made its entry to top-5 list of desired database	REDIS is preferred by Big-Data companies as it supports different kinds of abstract data structures
Latest technology in the list: ELASTICSEARCH	ELASTICSEARCH is a document-oriented database for doing extensive text search

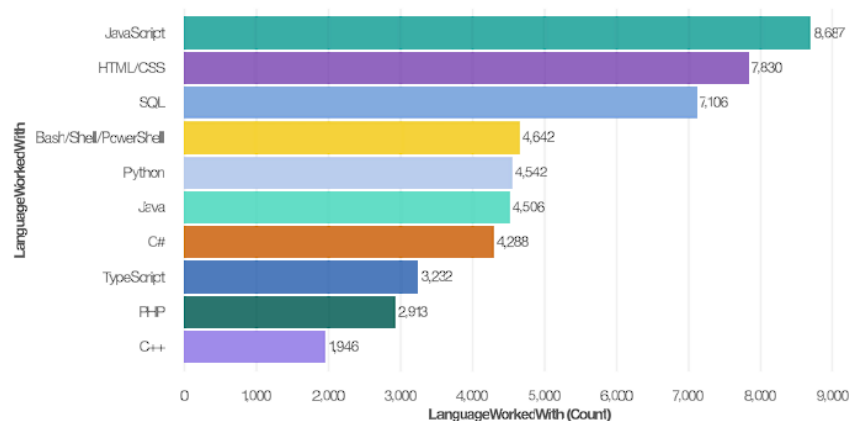
DASHBOARD



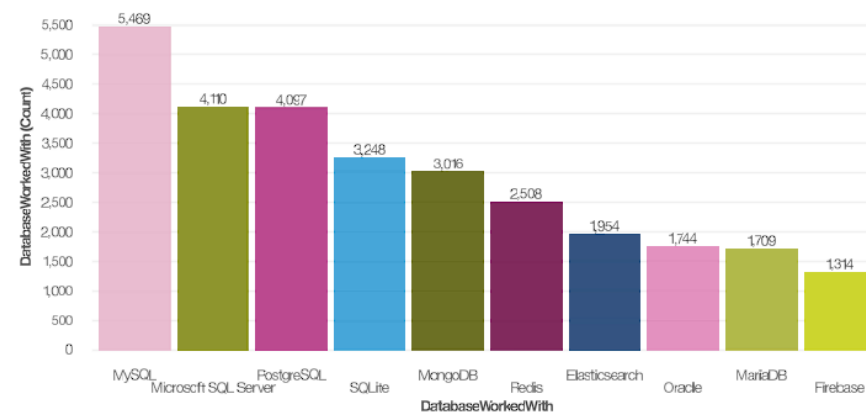
[Hyperlink to Dashboard](#)

DASHBOARD TAB 1

Top 10 Language worked with



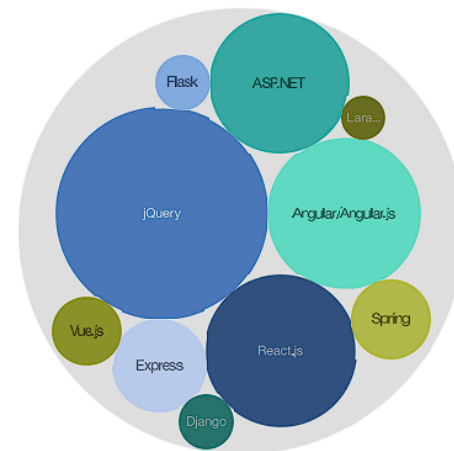
Top 10 Database worked with



Platform worked with

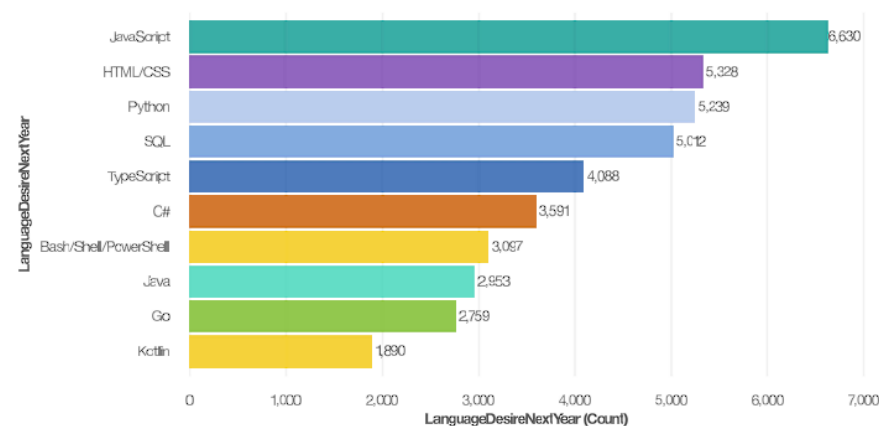


Top 10 Web-Frame worked with

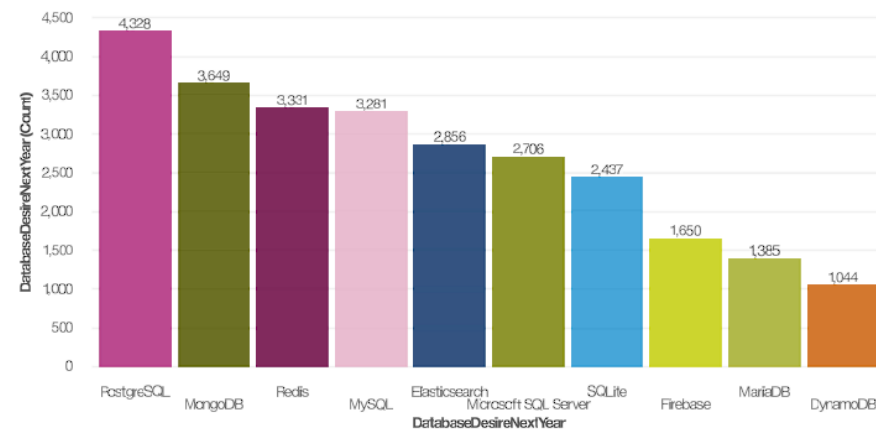


DASHBOARD TAB 2

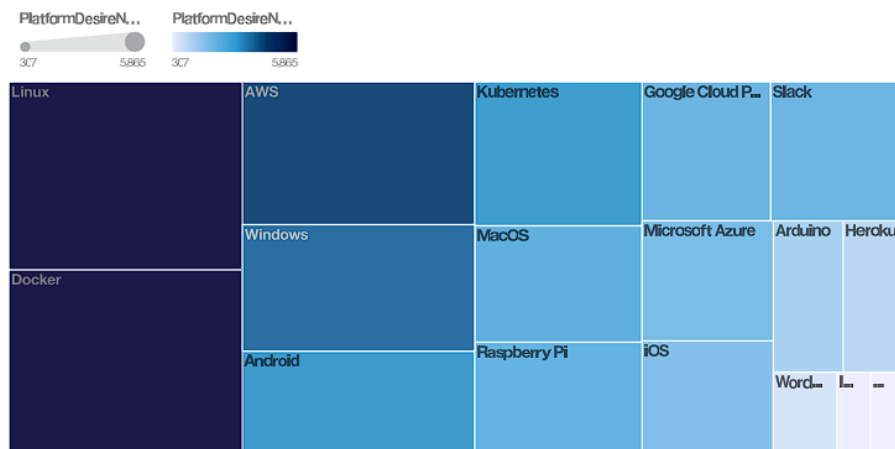
Top 10 Language desire next year



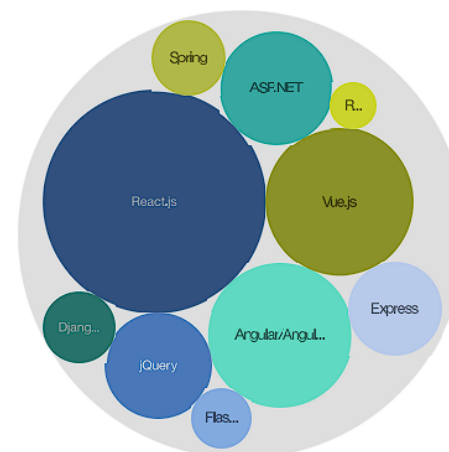
Top 10 Database desire next year



Platform desire next year



Top 10 Web-Frame desire next year



DISCUSSION



- Emerging technologies and trends
 - Programming languages
 - Databases
 - Platforms
 - Web-Frame
- Demographics in IT industry
 - Gender & Age distribution
 - Emerging countries for IT industry

OVERALL FINDINGS & IMPLICATIONS

Findings	Implications
Top sought after technologies changes every year	Developers and programmers should follow the trends and learn emerging skills to be competitive
AWS and DOCKER are emerging platforms	Future belongs to cloud-computing and associated platforms
Huge gender gap in IT industry	HR must carefully address the problem and ensure gender quality in organization
Age biases in IT industry	Companies should not have age discriminations & provide fair opportunity to people from all age-groups
Emerging countries in technologies	Organizations can target India as an emerging market for programmers & developers. Ed-Tech industries can have huge customer base in countries like India.

CONCLUSION

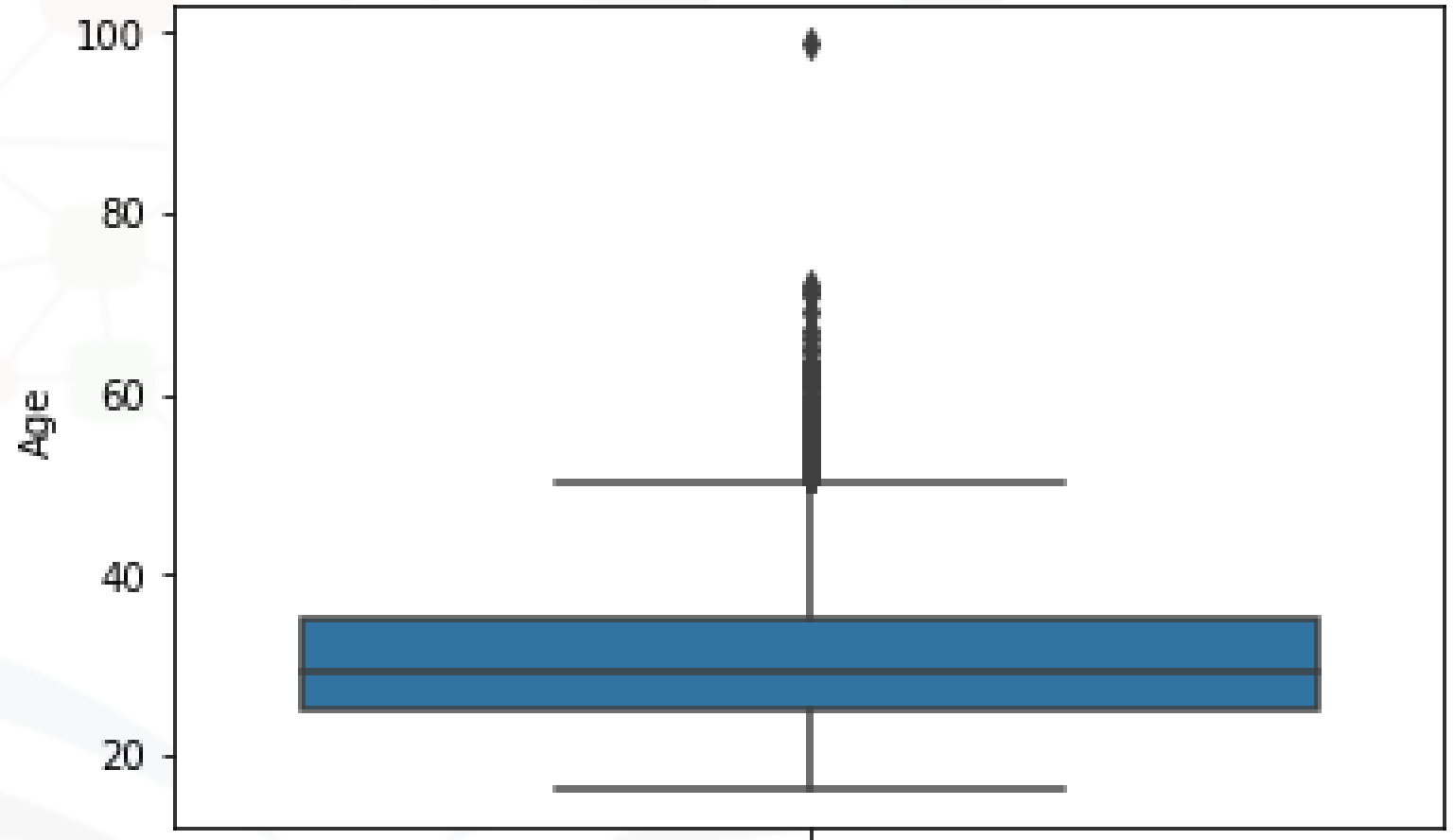


- Trends for technologies changes over time, one should update himself to be competitive
- Identifying emerging tech-countries and educating tech-lag countries to avoid disequilibrium in the world
- Eliminating gender and age biases in organization
- In future, analysis can be performed with preferred combination of languages + database + platforms

APPENDIX

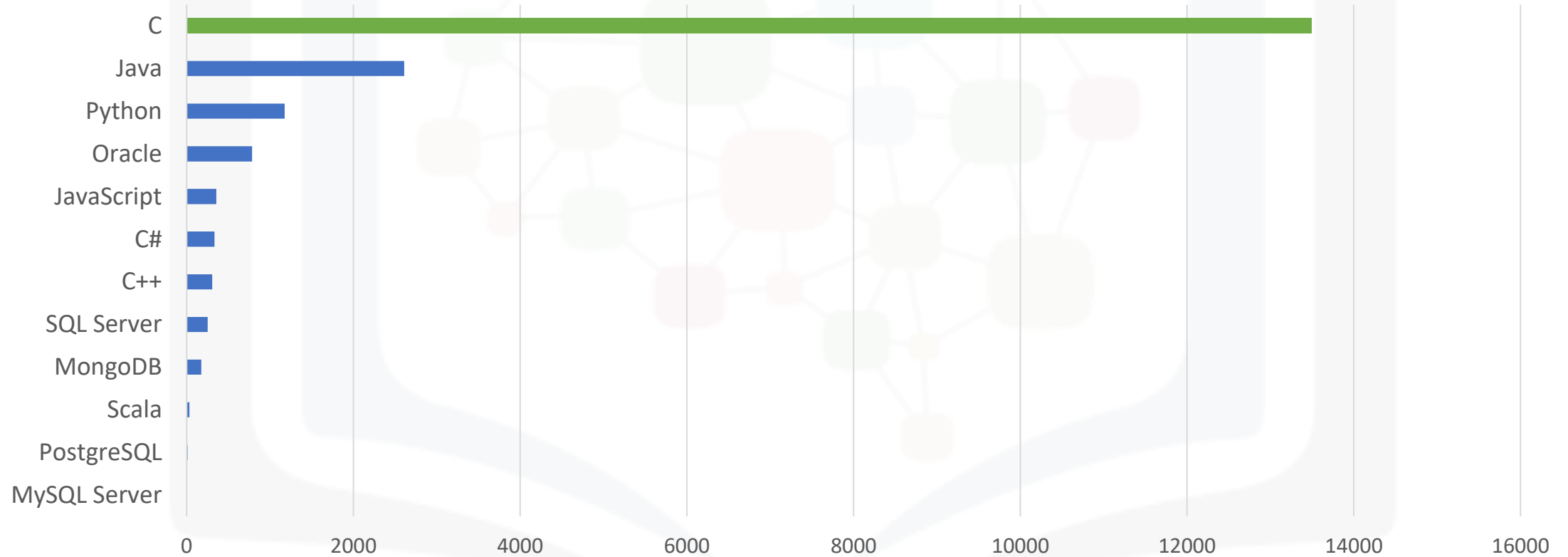


5 no. summary for Age of respondents



JOB POSTINGS

No. of jobs postings as per data collected by job-API



POPULAR LANGUAGES

Annual average salary in USD

