Q1
Q2
Q3
Q2
Q3
Q4

Shaping the Future:Insights into 2024's Top Tech Trends

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SKILLS NETWORK

OUTLINE

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EXECUTIVE SUMMARY

- HTML/CSS, JavaScript, and Python most popular tools and technologies in the industry.
- Java,Sql and python are emerging technologies that respondents are eager to explore in the coming year.
- Most respondents have a bachelor degree or Master degree and the analysis shows that there is relative relationship between education level and technology preferences.

INTRODUCTION

This analysis explores current and emerging trends in tools and technologies based on survey responses from tech professionals. Key findings include:

- Most Popular Technologies:
  - Programming Languages: HTML/CSS, JavaScript, and Python dominate as the most widely used, reflecting their versatility in web development, data analysis, and database interaction.
  - Databases: MySQL, Microsoft SQL Server, and PostgreSQL are the most commonly used, with PostgreSQL gaining traction for scalable solutions.
  - Platforms: Windows and Linux are the top choices, highlighting the community’s reliance on open-source and containerization technologies.

METHODOLOGY

- Data collection sources
  - Web scraping
  - API’s
- Data wrangling
  - Clean Data
  - Normalization/Standardization:
- Exploratory data analysis
  - Analyzing Data distribution
  - Handling outliers
  - Correlation Analysis
- Data Visualization

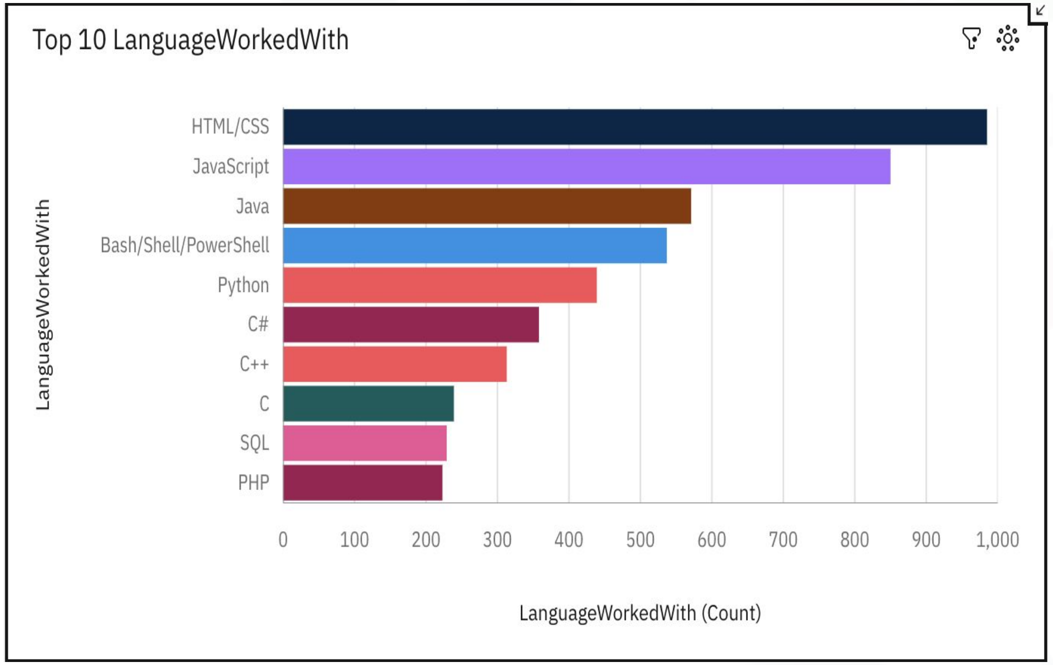
RESULTS

The analysis reveals the following key results:

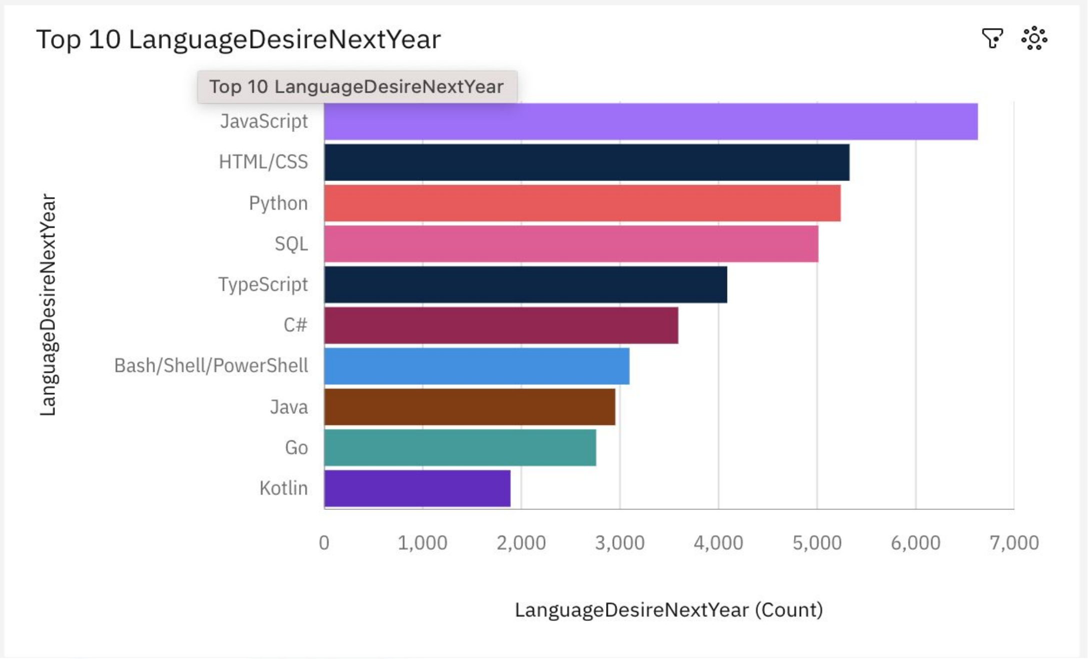
- **Current Favorites:**
  - Programming Languages: HTML/CSS, JavaScript and Python are the most widely used, with SQL as a critical skill for database interaction.
  - Databases: MySQL is the most commonly used, but PostgreSQL and MongoDB are significant contenders.
  - Platforms: Linux and Docker dominate current adoption, underscoring the trend toward open-source tools and containerization.
- **Emerging Trends:**
  - Programming Languages: Interest in Go and Kotlin reflects their growing importance in cloud-native and mobile development.
  - Databases: PostgreSQL has become the most desired database, showcasing its popularity for modern scalable applications.

PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

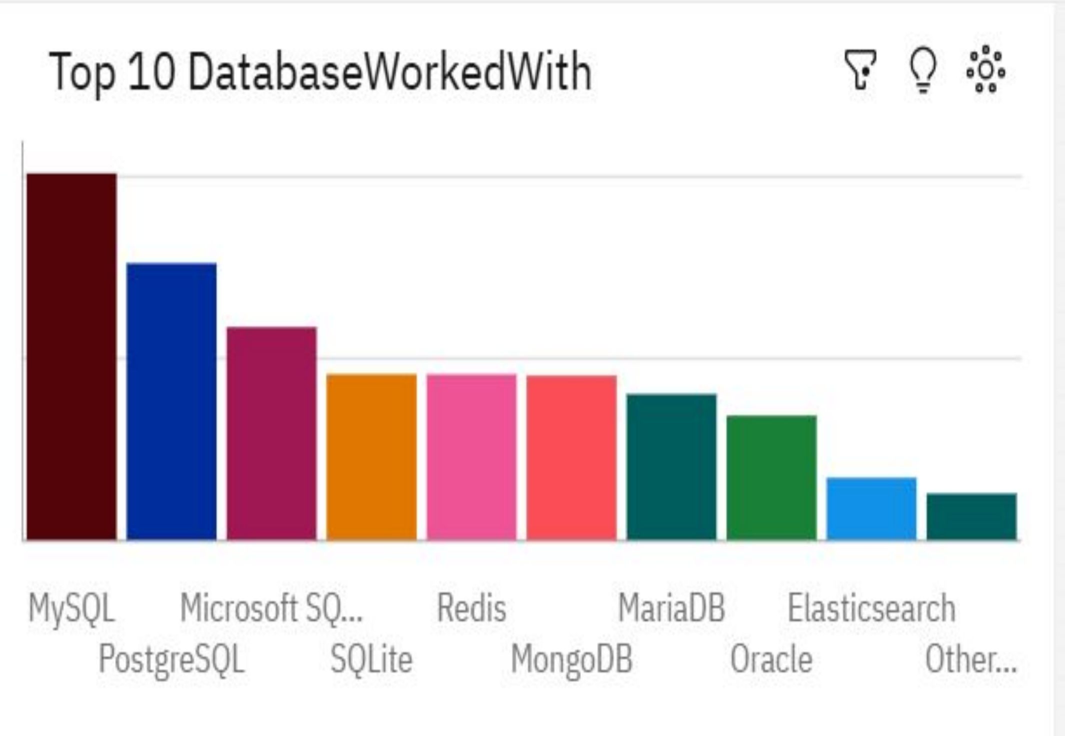
- HTML/CSS seems to keep as the leading language.
- Java is fast growing language.
- There is a great interest in python

Implications

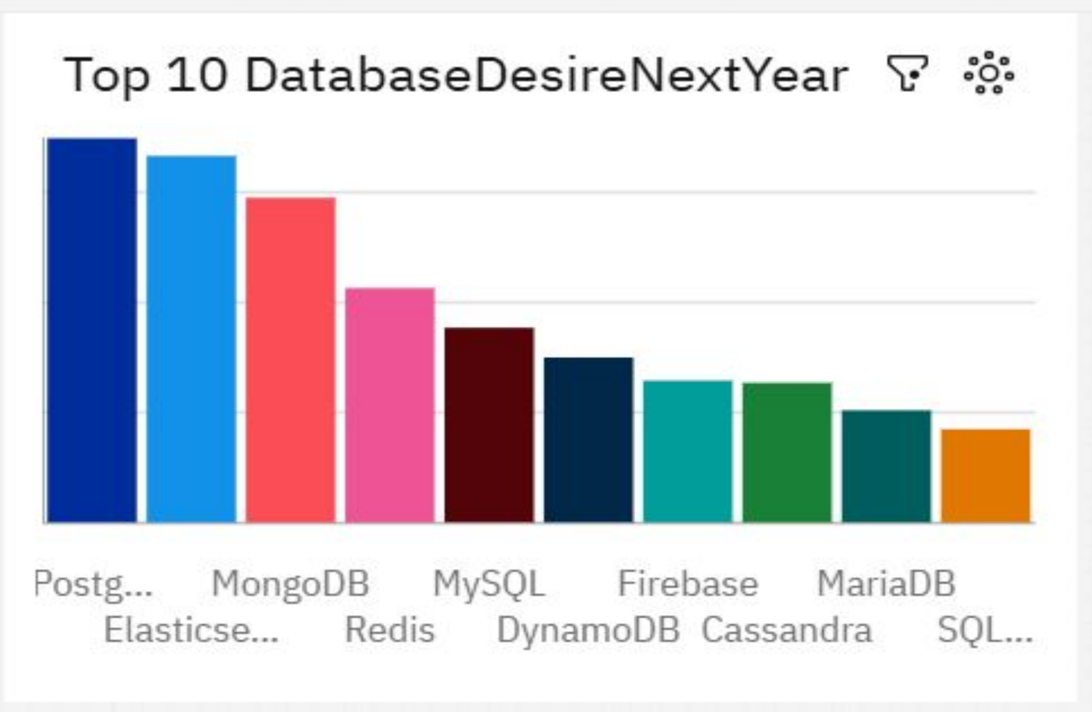
- Possible developers to migrate from html/css to java.

DATABASE TRENDS

Current Year


Top 10 DatabaseWorkedWith
MySQL
PostgreSQL
Microsoft SQ...
SQLite
Redis
MongoDB
MariaDB
Oracle
Elasticsearch
Other...

Next Year


Top 10 DatabaseDesireNextYear
Postg...
Elasticse...
MongoDB
Redis
MySQL
DynamoDB
Firebase
Cassandra
MariaDB
SQL...

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DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Sql is a most used database.
- Lack of interest in MariaDb and Oracle.
- Increasing interest in Microsoft Sql and Sqlite.

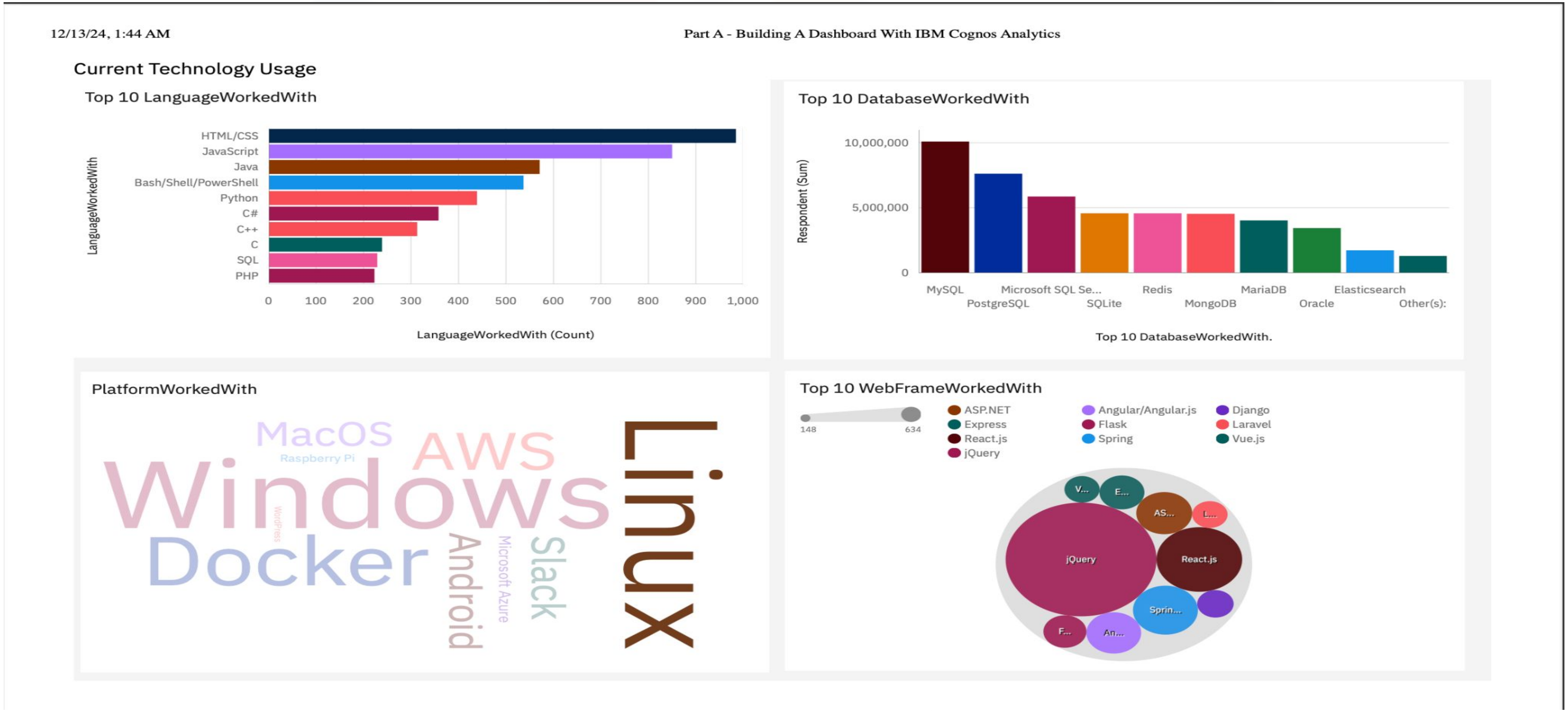
Implications

- MariaDb and Oracle is losing ground in the market.
- Microsoft Sql and Sqlite are getting base in the market.

DASHBOARD

https://github.com/Kalinehk/Part-A---Building-A-Dashboard-With-IBM-Cognos-Analytics/blob/main/_%20Part%20A%20-%20Building%20A%20Dashboard%20With%20IBM%20Cognos%20Analytics.pdf

Current Technology Usage



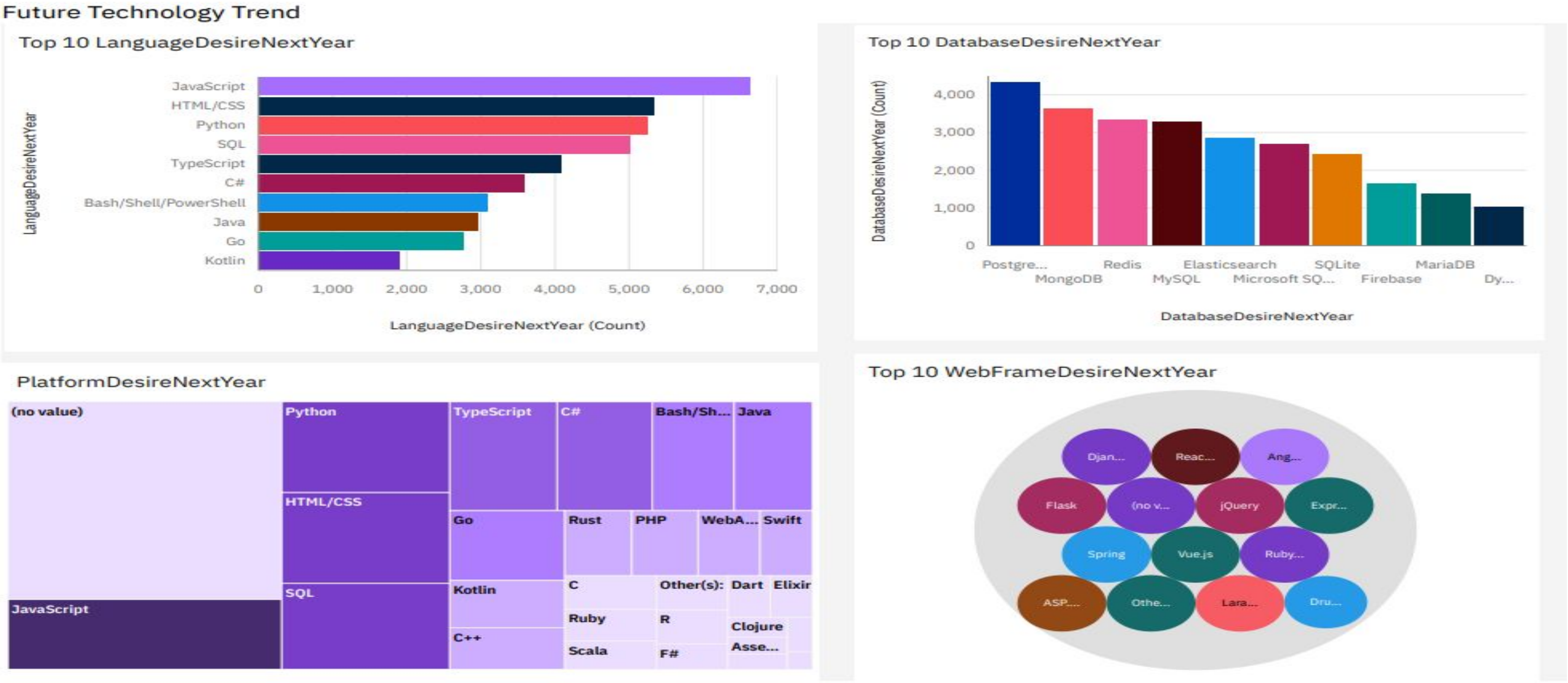
12/13/24, 1:44 AM

Part A - Building A Dashboard With IBM Cognos Analytics

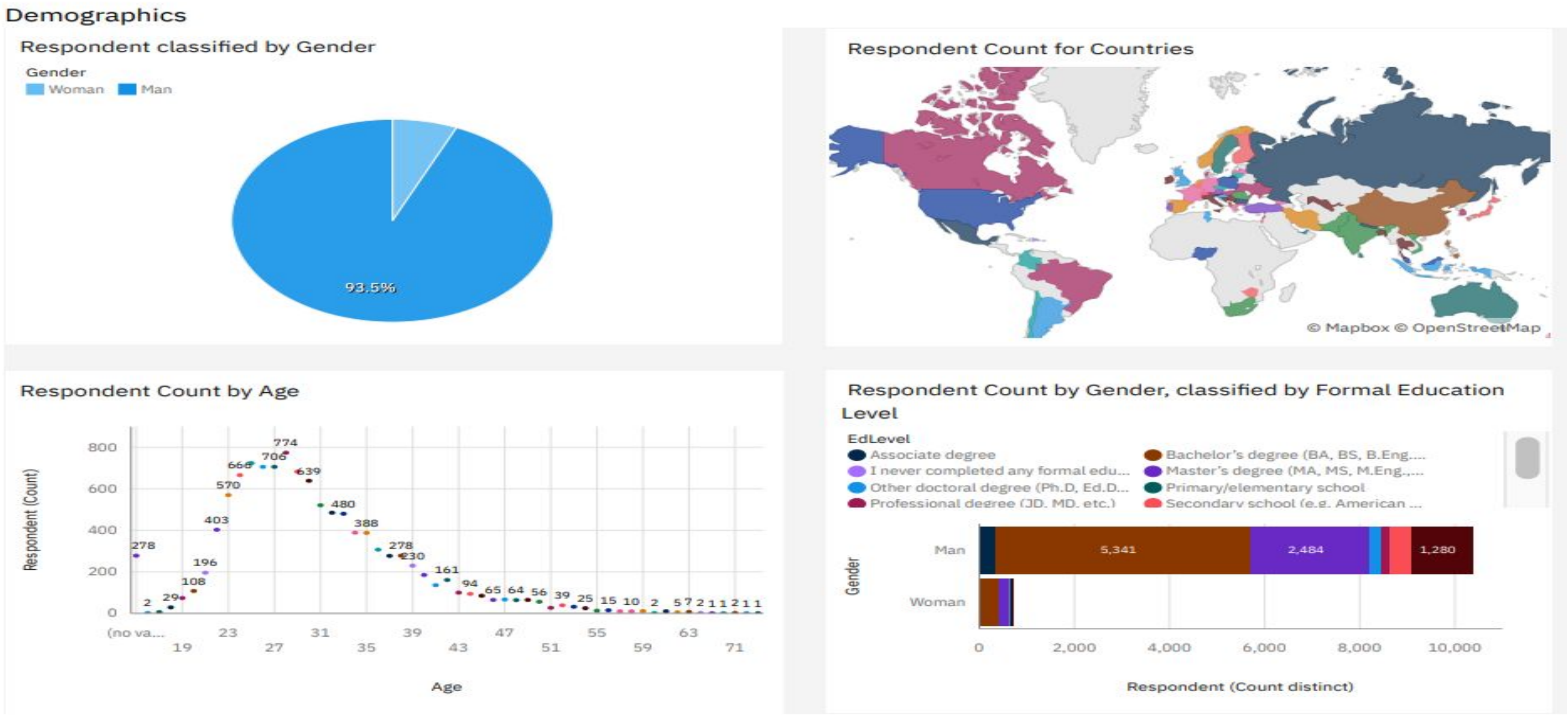
Current Technology Usage

Top 10 LanguageWorkedWith
LanguageWorkedWith
HTML/CSS
JavaScript
Java
Bash/Shell/PowerShell
Python
C#
C++
C
SQL
PHP
0
100
200
300
400
500
600
700
800
900
1,000
LanguageWorkedWith (Count)
Top 10 DatabaseWorkedWith
Respondent (Sum)
10,000,000
5,000,000
0
MySQL
PostgreSQL
Microsoft SQL Se...
SQLite
Redis
MongoDB
MariaDB
Oracle
Elasticsearch
Other(s):
Top 10 DatabaseWorkedWith.
PlatformWorkedWith
MacOS
AWS
Raspberry Pi
Windows
WordPress
Docker
Android
Microsoft Azure
Slack
Linux
Top 10 WebFrameWorkedWith
148
634
ASP.NET
Express
React.js
jQuery
Angular/Angular.js
Flask
Spring
Django
Laravel
Vue.js
V...
E...
AS...
L...
jQuery
React.js
Sprin...
F...
An...

Future Technology Trend


Future Technology Trend
Top 10 LanguageDesireNextYear
LanguageDesireNextYear
JavaScript
HTML/CSS
Python
SQL
TypeScript
C#
Bash/Shell/PowerShell
Java
Go
Kotlin
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
LanguageDesireNextYear (Count)
Top 10 DatabaseDesireNextYear
DatabaseDesireNextYear (Count)
4,000
3,000
2,000
1,000
0
Postgre...
MongoDB
Redis
MySQL
Elasticsearch
Microsoft SQ...
SQLite
Firebase
MariaDB
Dy...
DatabaseDesireNextYear
PlatformDesireNextYear
(no value)
Python
TypeScript
C#
Bash/Sh...
Java
HTML/CSS
Go
Rust
PHP
WebA...
Swift
JavaScript
SQL
Kotlin
C
Other(s):
Dart
Elixir
Ruby
R
Clojure
C++
Scala
F#
Asse...
Top 10 WebFrameDesireNextYear
Djan...
Reac...
Ang...
Flask
(no v...
jQuery
Expr...
Spring
Vue.js
Ruby...
ASP....
Othe...
Lara...
Dru...

DEMOGRAPHICS


Demographics
Respondent classified by Gender
Gender
Woman
Man
93.5%
Respondent Count for Countries
© Mapbox © OpenStreetMap
Respondent Count by Age
Respondent (Count)
800
600
400
200
0
278
2
29
108
196
403
570
666
706
774
639
480
388
278
230
161
94
65
64
56
39
25
15
10
2
5
7
2
1
1
2
1
1
(no va...
19
23
27
31
35
39
43
47
51
55
59
63
71
Age
Respondent Count by Gender, classified by Formal Education Level
EdLevel
Associate degree
Bachelor's degree (BA, BS, B.Eng....
I never completed any formal edu...
Master's degree (MA, MS, M.Eng.,...
Other doctoral degree (Ph.D, Ed.D...
Primary/elementary school
Professional degree (JD, MD, etc.)
Secondary school (e.g. American ...
Gender
Man
Woman
5,341
2,484
1,280
0
2,000
4,000
6,000
8,000
10,000
Respondent (Count distinct)

DISCUSSION

The analysis conducted throughout this project focused on understanding technology usage, trends, and demographic data through the collection, wrangling, exploration, and visualization of survey data.

OVERALL FINDINGS & IMPLICATIONS

Findings

- HTML/CSS is widely used and Java is getting popular.
- Over 90% developers are male.

Implications

- Female are less interested in technology trends.

CONCLUSION

Programming Languages:

- Htm/css, JavaScript, and Java lead as the most widely used and desired languages.

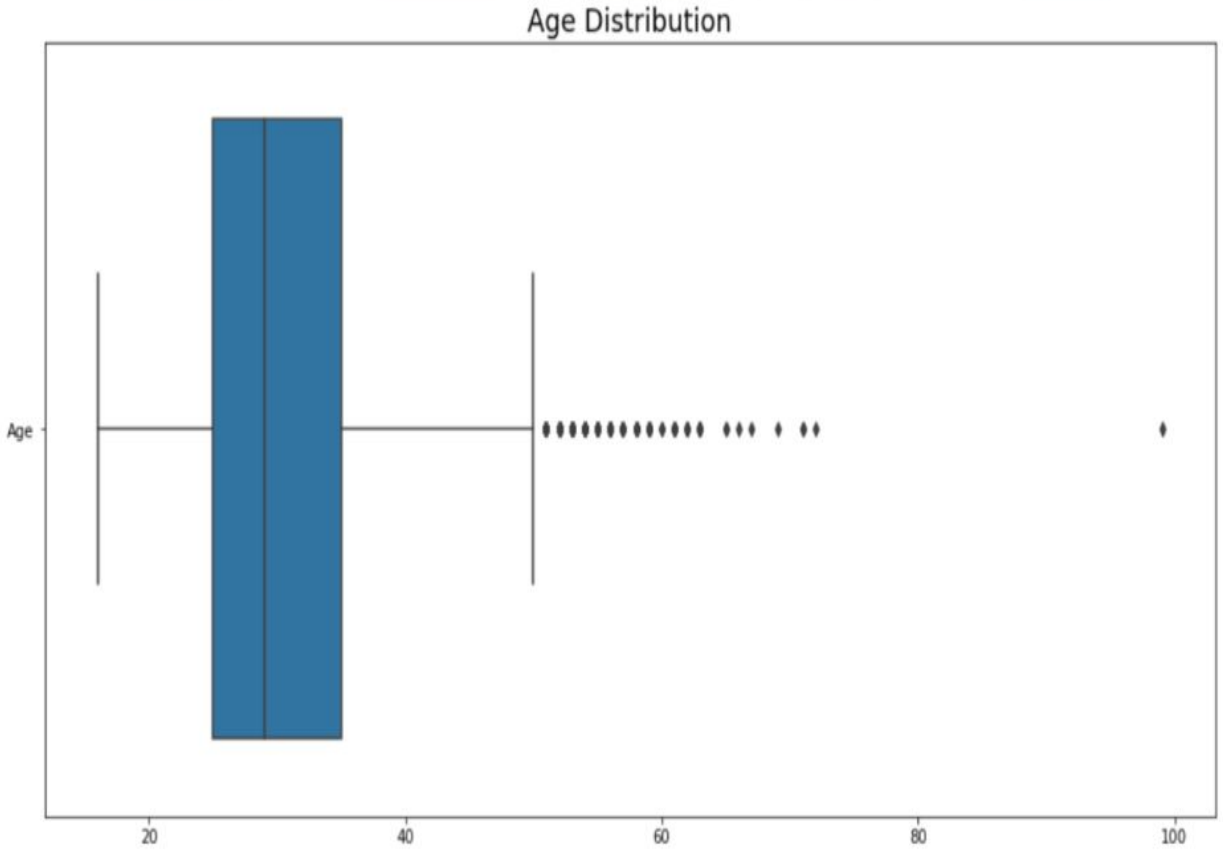
Databases:

- PostgreSQL emerges as the most desired database, overtaking MySQL, showcasing its rising popularity in scalable and flexible systems.

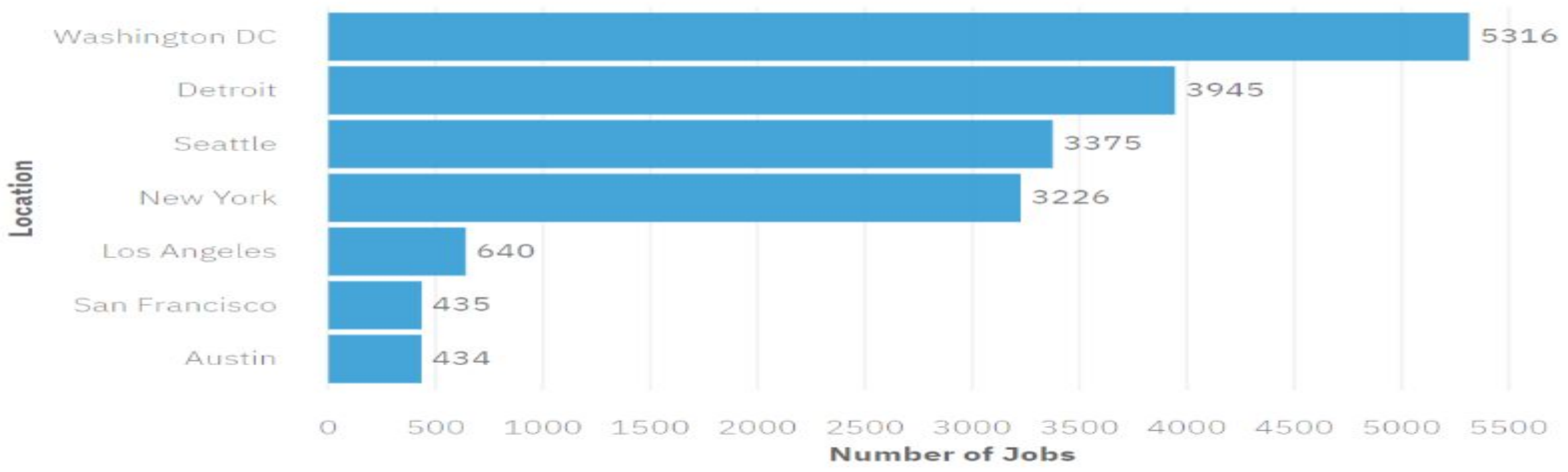
Platforms:

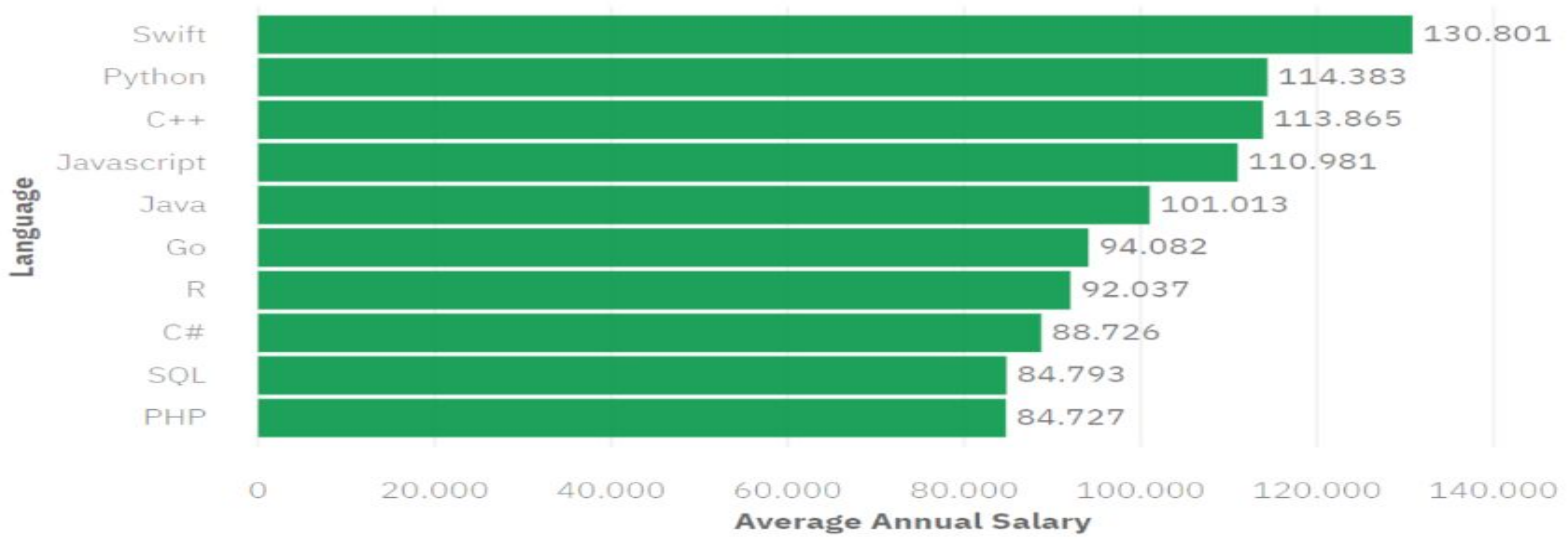
- Window and Linux dominate both current use and future aspirations, emphasizing the trend toward containerization and open-source systems.

APPENDIX



JOB POSTINGS



POPULAR LANGUAGES