



Capstone Project. Stack overflow survey - 2019

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OUTLINE



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- Methodology
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- Discussion
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EXECUTIVE SUMMARY



- **Current Technology Usage**

Top 10 Language Worked With

Top 10 Database Worked With

Platform Worked With Word cloud

Top 10 Web Frame Worked With

- **Future Technology Trend**

Top 10 Language Desire Next Year

Top 10 Database Desire Next Year

Platform Desire Next Year

Top 10 WebFrame Desire Next Year

- **Demographics**

Respondent classified by Gender

Respondent Count for Countries

Respondent Count by Age

Respondent Count by Gender & classified by Formal Education Level

INTRODUCTION



- The top 10 Programming Languages in demand
- The top 10 database skills in demand
- The top Platformed utilization
- The top 10 Web-frame platform in demand

METHODOLOGY



- **Collecting Data**– Stack Overflow Developer Survey –2019
 - Using – API.
 - Using – Web-scraping.
- **Exploring Data**
 - Finding Duplicates & Removing Duplicates.
 - Finding & Imputing Missing Value.
 - Normalizing Data.
 - Handling Outliers.
 - Correlation
- **Visualization Data**
 - Visualization Distribution, Relation, Composition & Comparison of data.
 - Building Dashboard.

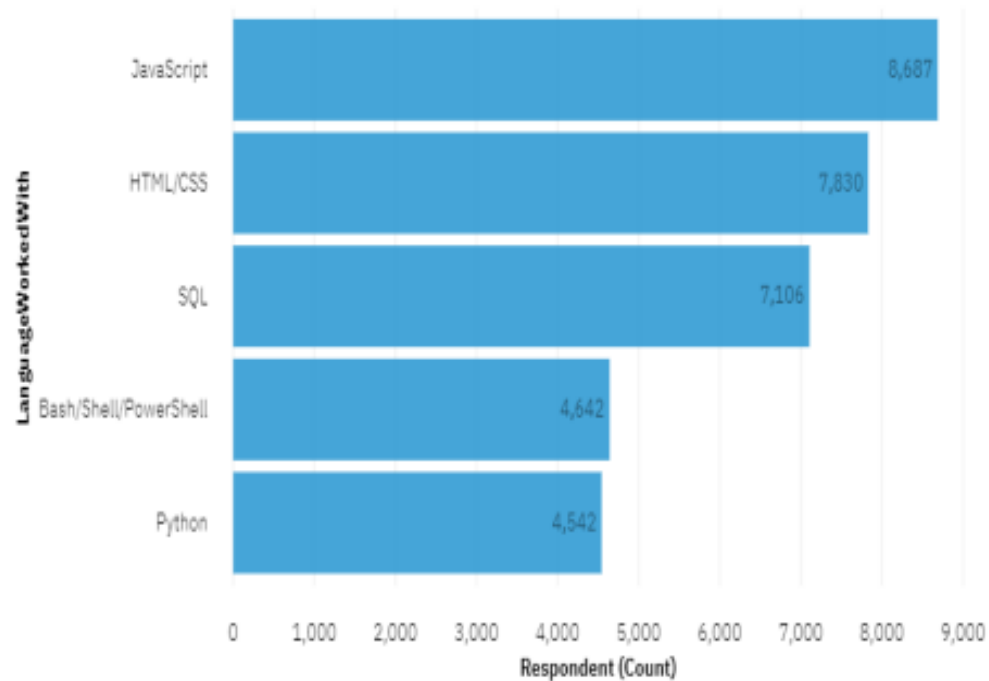
RESULTS



PROGRAMMING LANGUAGE TRENDS

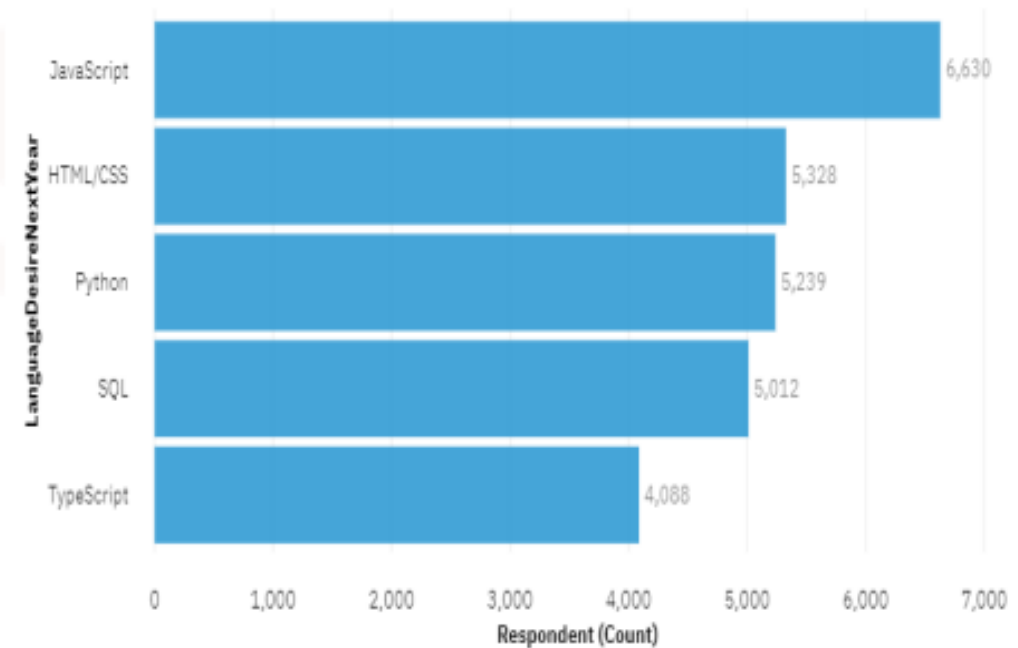
Current Year

Top 5 Languages Worked with



Next Year

Top 10 Language DesiredNextYear



PROGRAMMING LANGUAGE TRENDS – FINDINGS & IMPLICATIONS

Findings

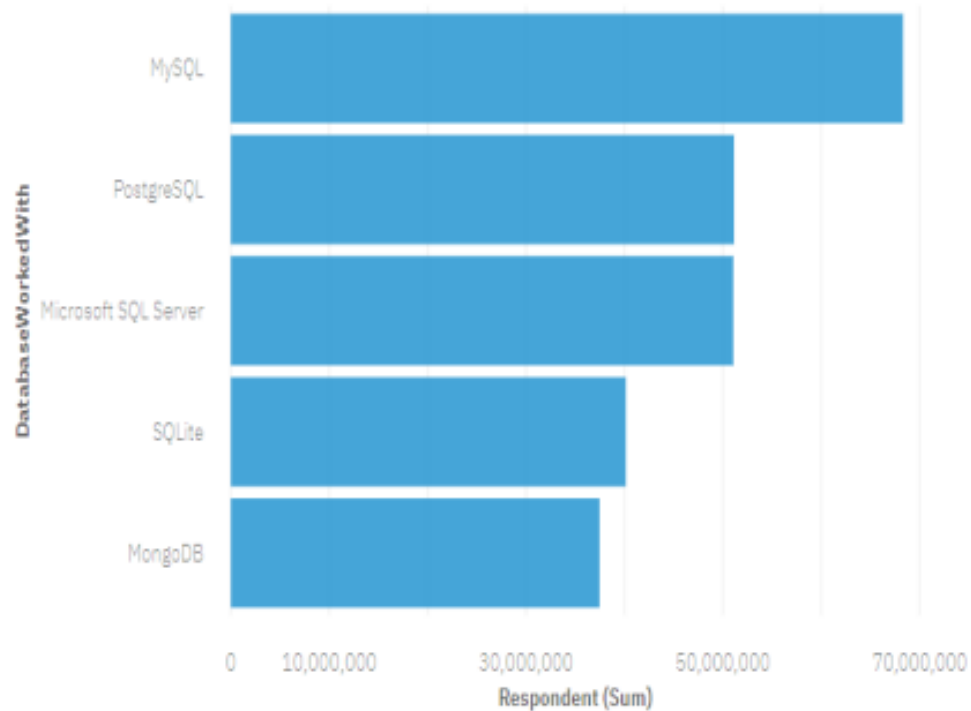
- Java-script appears to be popular choice for current as well future years
- Web Assembly comes as least popular for current years and VBA appears least choice for next year
- Python and SQL appears to be evergreen mid popular choice for current and next year respectively

Implications

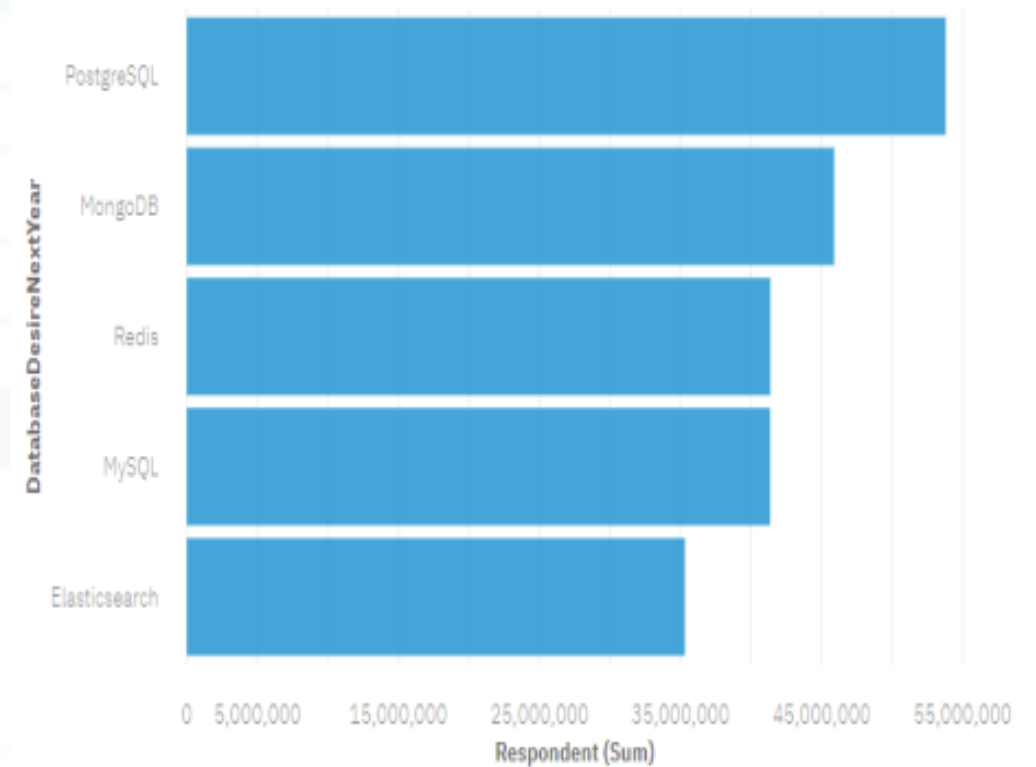
- Java-script is becoming the new upcoming popular demanding programming language among users
- Web Assembly and VBA has been replaced by other programming languages at most places
- Python and SQL appears to be evergreen demand Programming languages.

DATABASE TRENDS

Top 5 Database current Year



Top 5 Database Desired Next Year



DATABASE TRENDS – FINDINGS & IMPLICATIONS

Findings

- MySQL comes out to be popular choice for current whereas PostgreSQL overcomes every other in case of desired next year choice.
- Couch base comes as least popular for current years as well as for next year as well.
- Elasticsearch, Redis & MongoDB comes out to show progressive trends in upcoming years whereas MySQL shows declining trend as compared to current-next years charts.

Implications

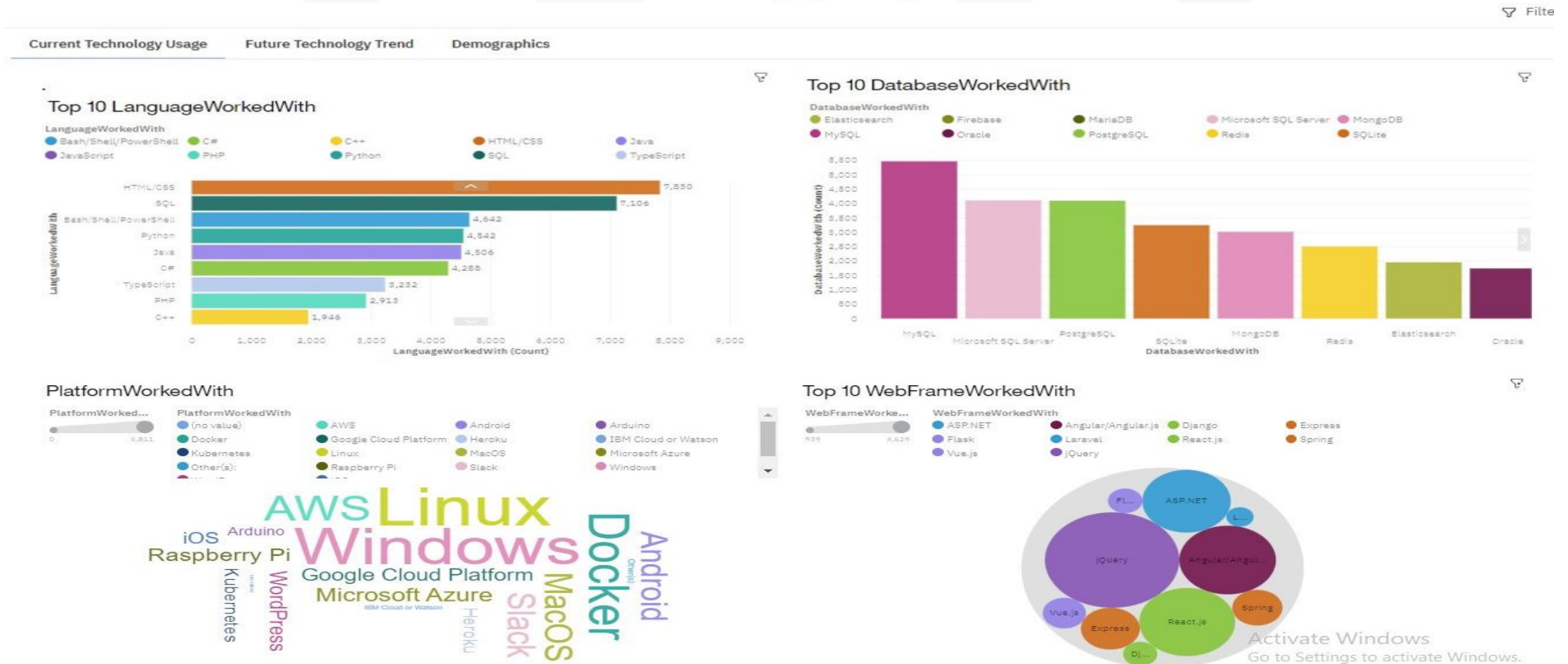
- PostgreSQL is becoming the new upcoming popular desired database skills among users replacing MySQL.
- Couchbase has been replaced by other programming languages at most places.
- Elasticsearch, Redis & MongoDB appears to be more popular desired choice as compared to MySQL.

DASHBOARD

The permanent link of the read-only view of the Cognos dashboard is as follows:

<https://eu-de.dataplatform.cloud.ibm.com/dashboards/2c7e79ca-3e6d-445a-8862-5fa2fc296d57/view/6f3bd62b1e92629477b1eae4079b280179662559b0bbd10488827b495a357197a96a1b98c8291908db185463fbb9115cc8>

DASHBOARD TAB 1



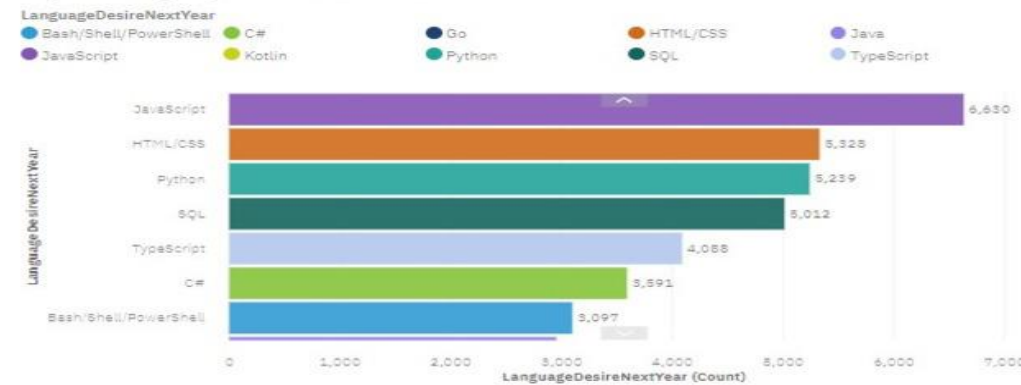
DASHBOARD TAB 2

Current Technology Usage

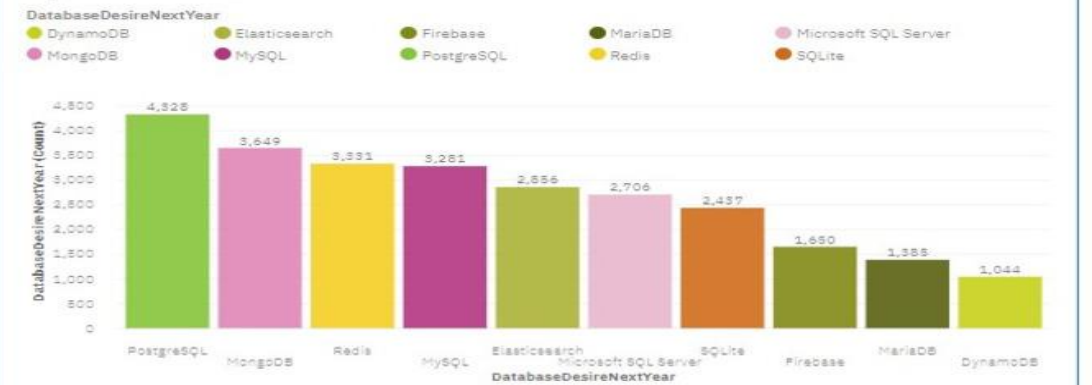
Future Technology Trend

Demographics

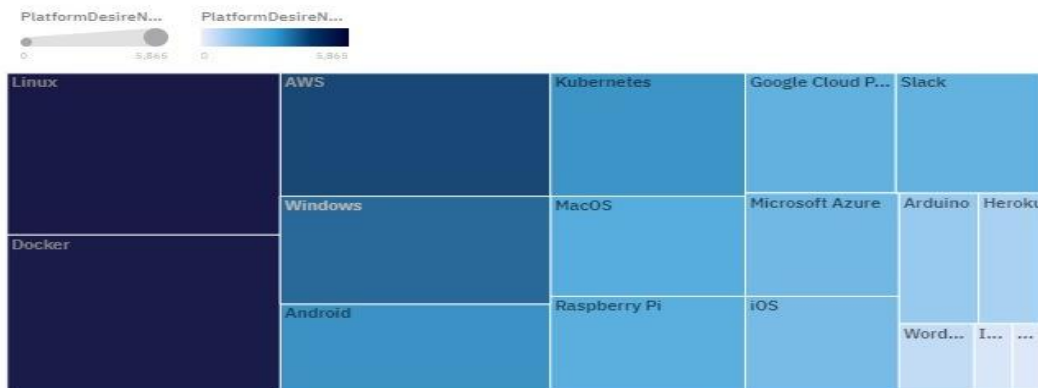
Top 10 LanguageDesireNextYear



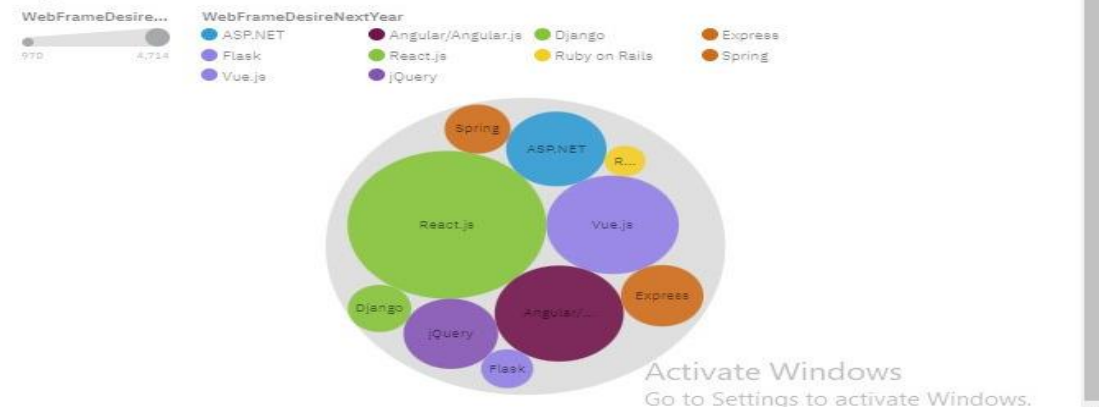
Top 10 DatabaseDesireNextYear



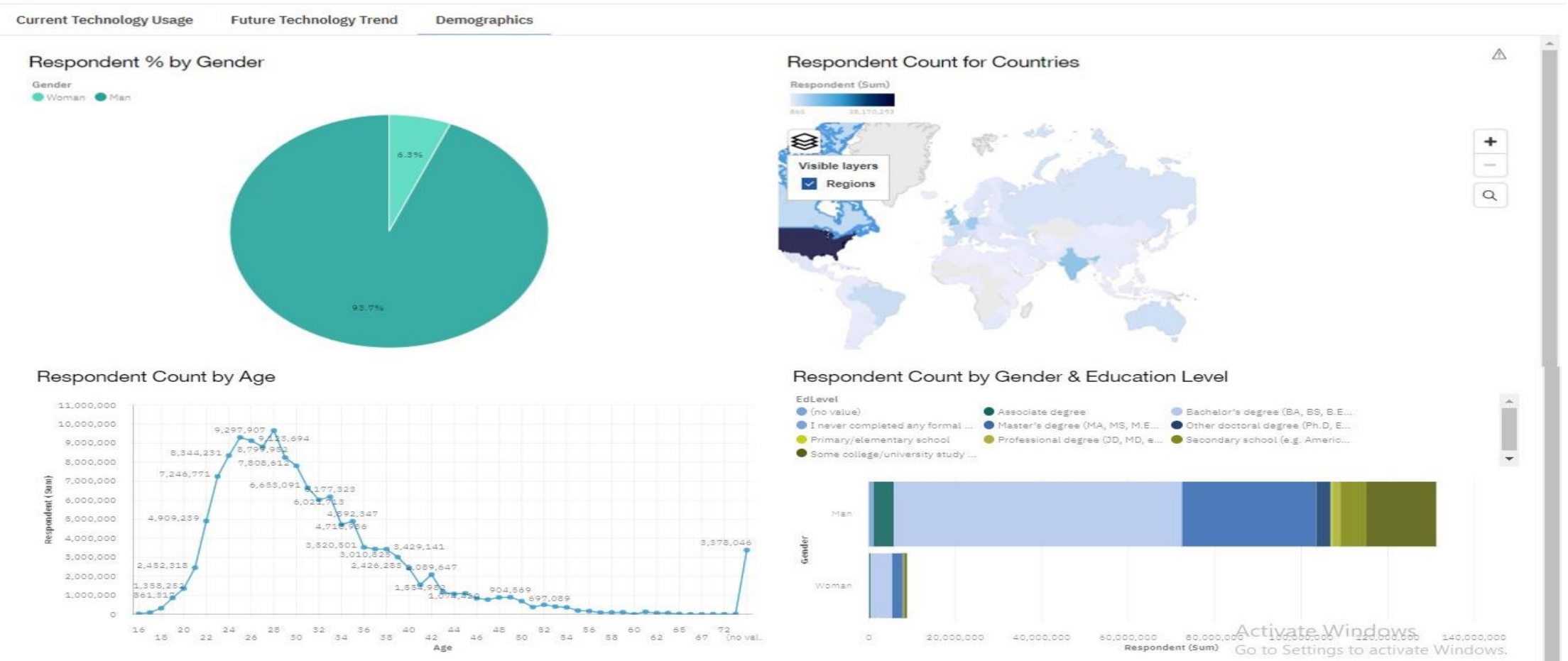
PlatformDesireNextYear



Top 10 WebFrameDesireNextYear



DASHBOARD TAB 3



DISCUSSION



- All age used for survey
- All gender considered for survey.
- People from different countries were asked for survey.
- Various education level people were included as well.

OVERALL FINDINGS & IMPLICATIONS

Findings

- The upcoming programming trend is for advanced programming languages.
- The upcoming trend for databases is non-relational databases mostly.

Implications

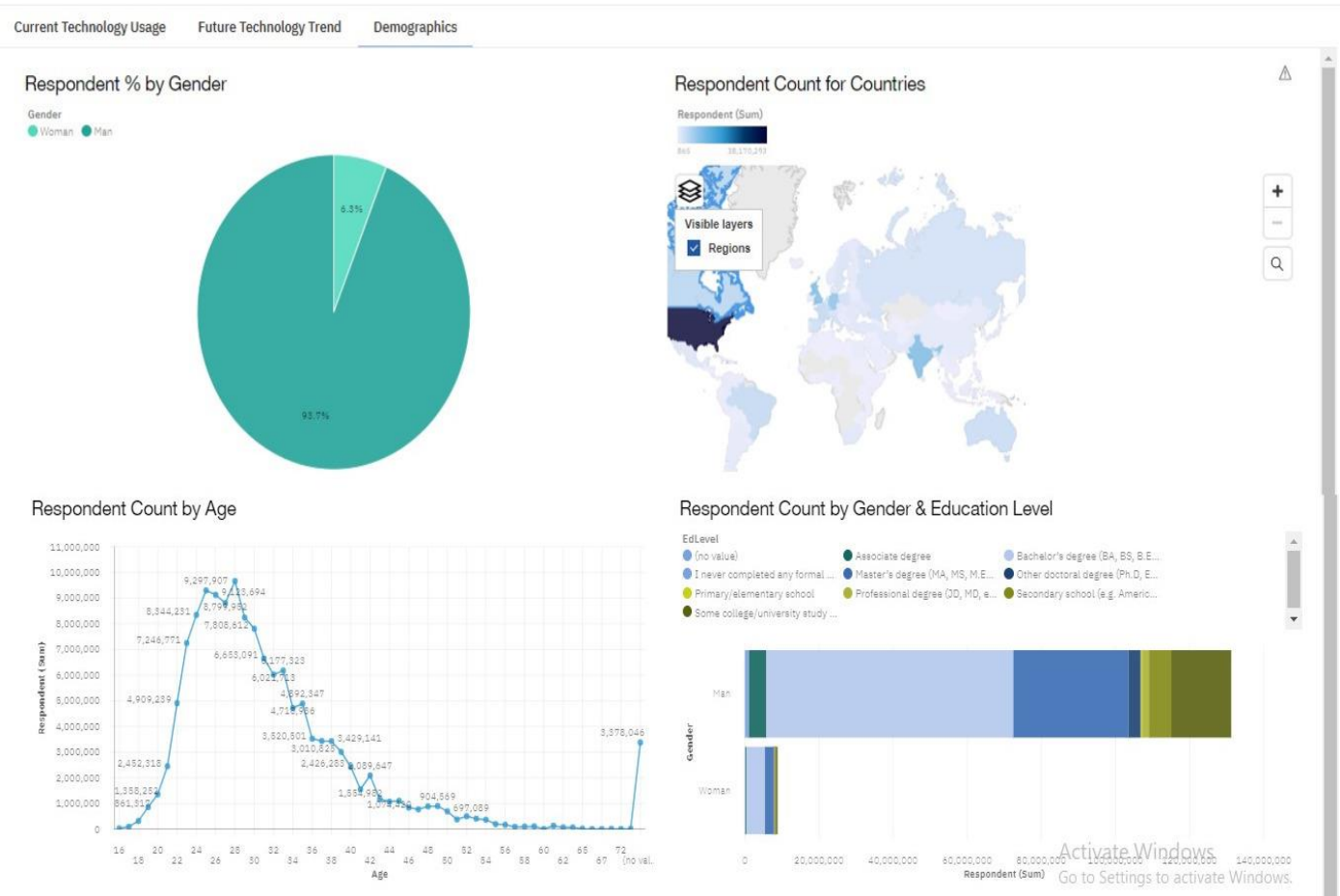
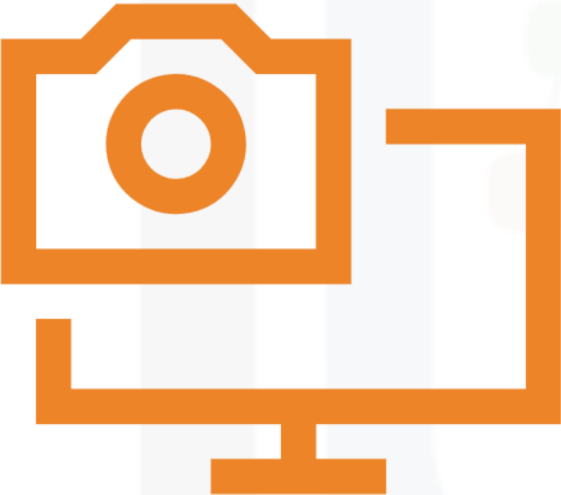
- People are looking for advanced programming languages with easy learning in focus.
- People are looking for big data because it seem to have great future.

CONCLUSION

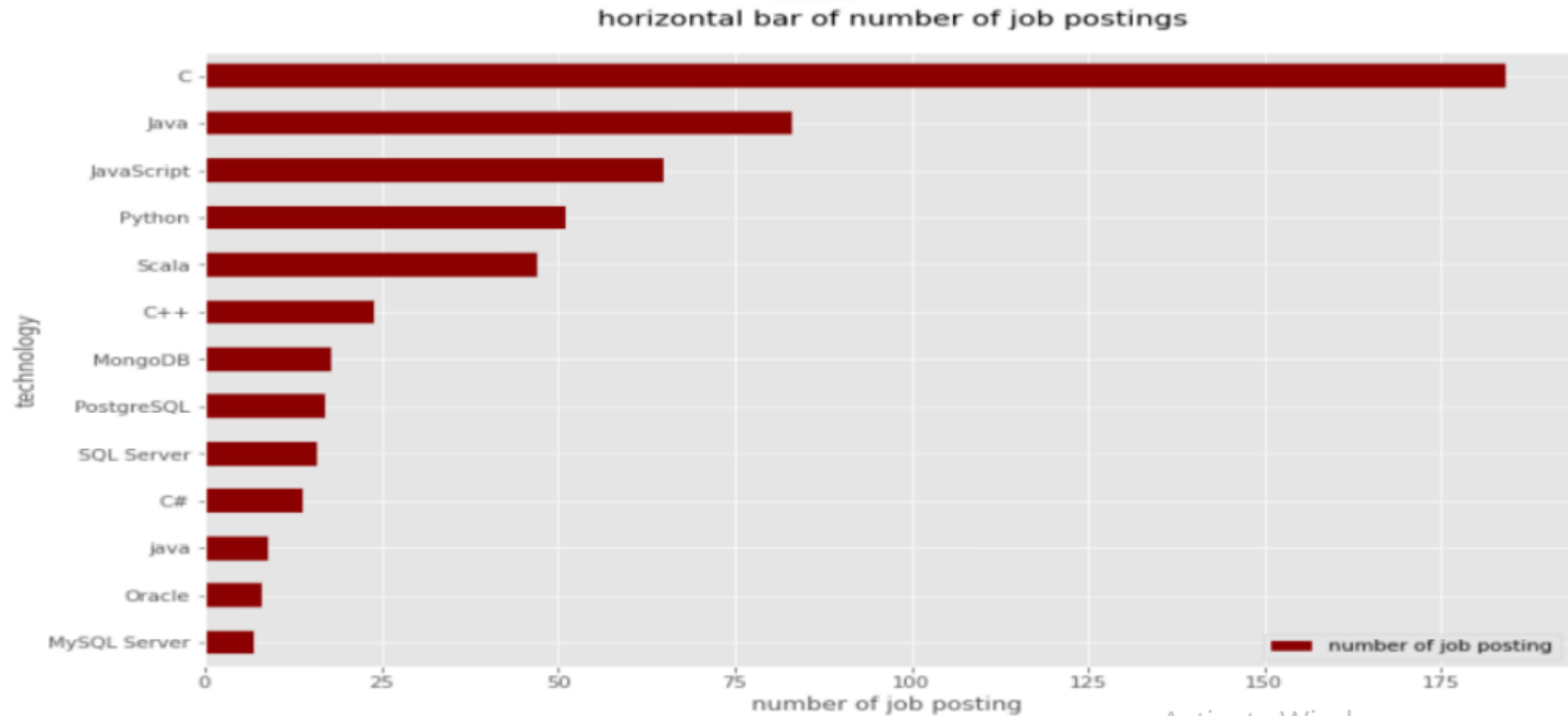


- The top programming language in demand Present & Future- JavaScript.
- The top database skills in demand Present – MySQL ; Future – PostgreSQL.
- Popular Platform Present – Windows ; Future – Linux Docker
- The top Web-frame in Demand Present – jQuery ; Future – React.js

APPENDIX



JOB POSTINGS



Activate Windows

POPULAR LANGUAGES

