



World Report on Technologies Usage and Trend

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OUTLINE



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EXECUTIVE SUMMARY



- Point1 – IT is under pressure since AI speeds up in a fast pace world change
- Point2 – To understand what's going on that field, a world survey has been done to define :
 - Sub Point 1 – regions, involved or mature in that change
 - Sub Point 2 – languages in use and in demand
 - Sub Point 3 – database solutions in use and in demand
- Point3 – Go & Python demand rises (+250% and +160%)
- Point4 – MongoDB & PostgreSQL demand rises too
- Point5 – Over 95% of respondents are mens.

INTRODUCTION



- Point1 – Who ? I introduce myself : I switch my career in data field and I have a solid finance background and strong analytical skills.
- Point2 – Why ? The world is changing at a very fast pace, like never before in our days, and we all need to be aware of it and agile. A robust data analysis will help the business to take the best decisions, which is called ‘data-driven’.
- Point3 – What ? A data analysis is a process that uses facts, records, statistics and mathematics to provide improvements or identify leakages, failures, issues to fix.
- Point4 – How ? I performed using common techniques and focused on the two main aspects I’ve been asked for :
 - Sub Point1 – Demography
 - Sub Point2 – Technical use and demand

METHODOLOGY



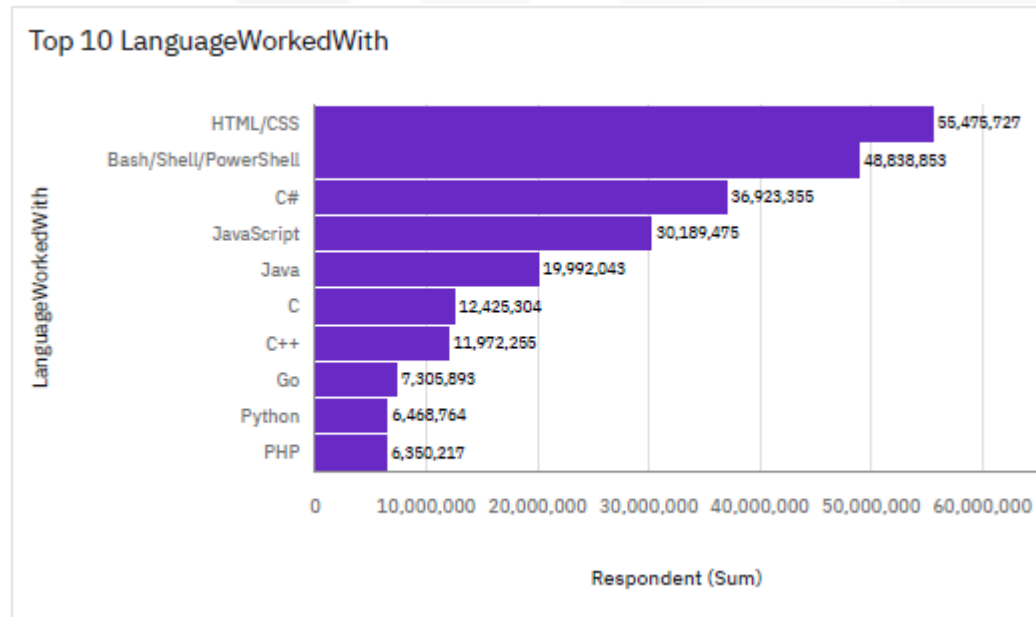
- Point1 – Draw the target and stay focus on it. Bring concise and relevant elements
- Point2 – Extraction of data (from reports, datasheets, in several formats and webscrapping)
- Point3 – Transformation (data cleansing to avoid side effects, malfunctions and mismatch)
- Point4 – Loading deliverables (number, sources, insights)
 - Sub Point1 – To extract and transform, I used Python, SQL, Excel
 - Sub Point2 – To load, I used Cognos and Looker

RESULTS

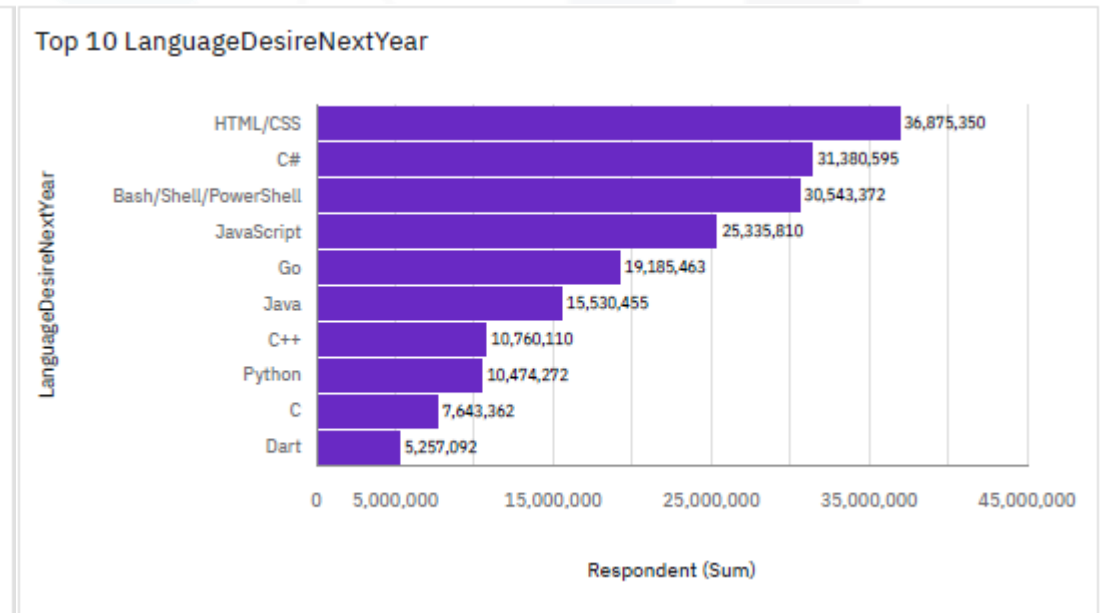


PROGRAMMING LANGUAGE TRENDS

Current Year



Next Year



PROGRAMMING LANGUAGE TRENDS - FINDINGS & IMPLICATIONS

Findings

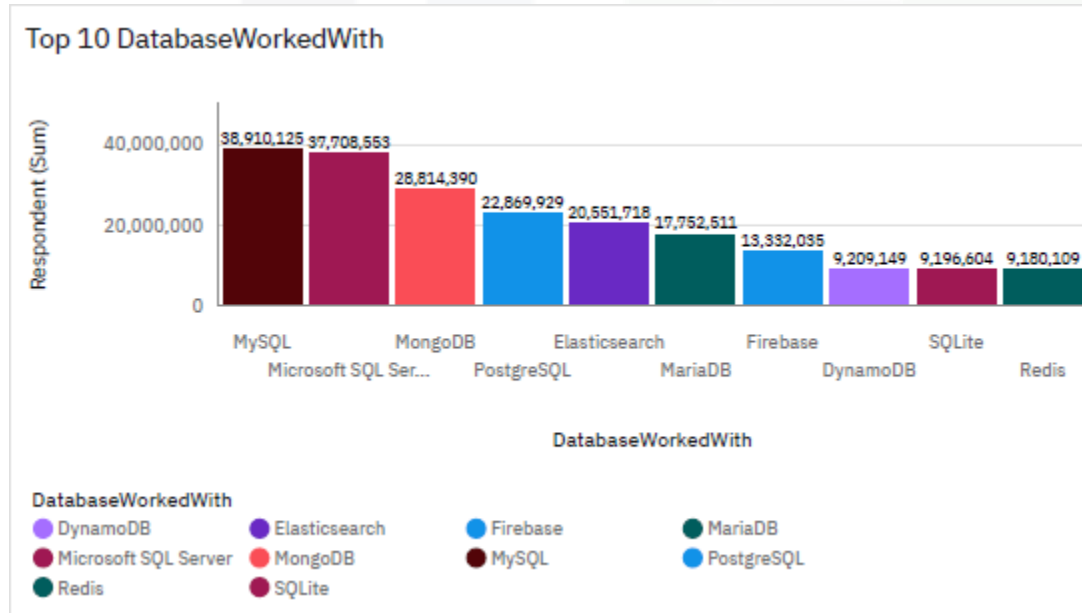
- Finding 1 – Go & Python rises
- Finding 2 – Html/CSS collapses
- Finding 3 – Bash/Shell/Powershell collapses

Implications

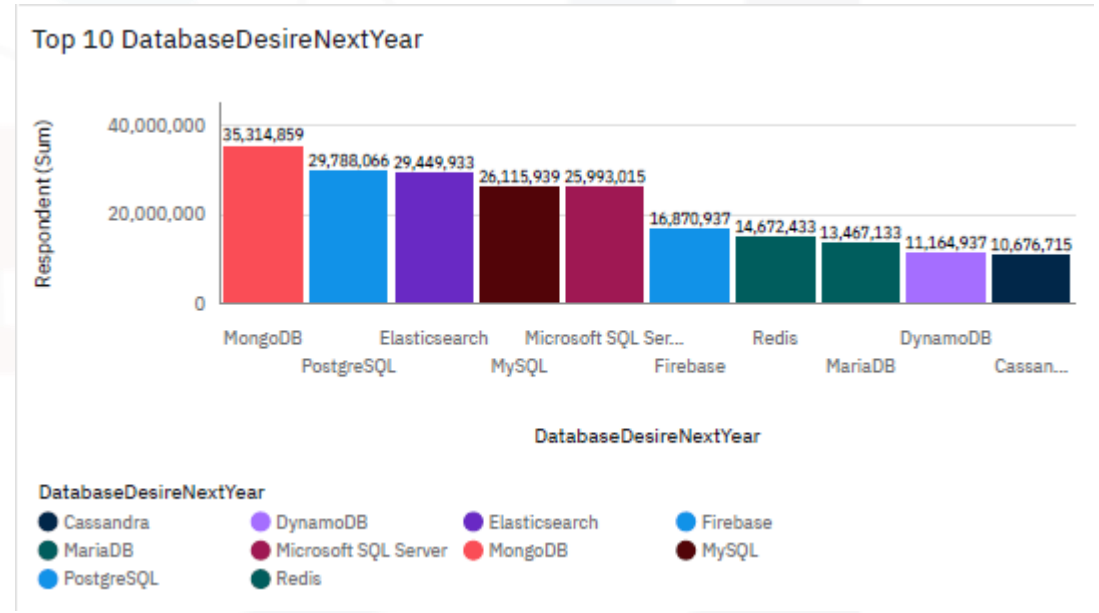
- Implication 1 – In demand for the data field rises, so the tools : Go growth is > 263% and Python 162%. We should buy some stock and jump into it quick.
- Implication 2 – HTML/CSS are well knowned, and most professionals are educated onto it. No need to push further the common knowledge so the demand decreases.
- Implication 3 – Techniques are about to be replaced soon

DATABASE TRENDS

Current Year



Next Year



DATABASE TRENDS - FINDINGS & IMPLICATIONS

Findings

- Finding 1 – MongoDB & PostgreSQL rises
- Finding 2 – MySQL & Microsoft SQL Server collapses
- Finding 3 – SQL Lite is replaced by Cassandra in Top 10 demands

Implications

- Implication 1 – New techs on market pursues their attraction
- Implication 2 – Most of the professionals are educated onto it already, so the demand decreases
- Implication 3 – Cassandra offers alternatives while SQL Lite is a MySQL/SQL Server kind of, which explains a lack of interest.

DASHBOARD

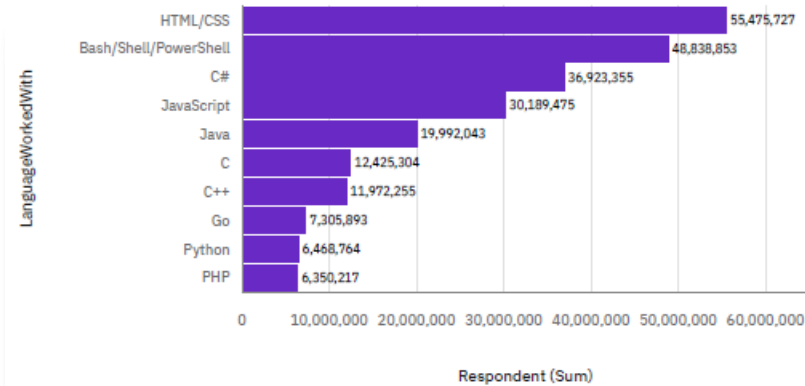


<The GitHub link of the Cognos/Looker Studio dashboard goes here.>

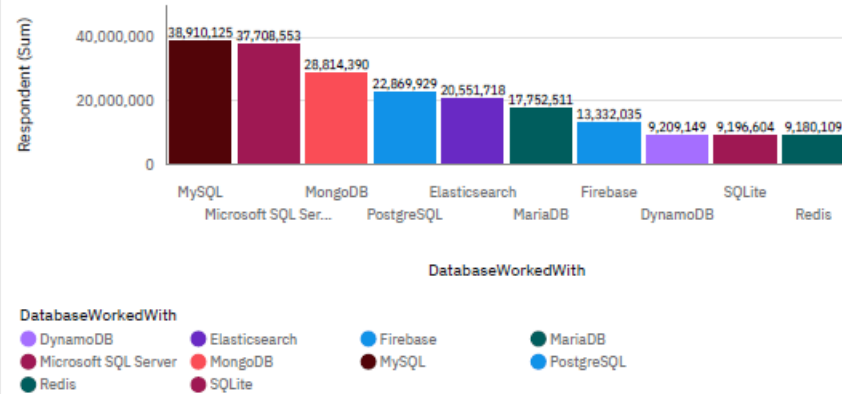
<https://github.com/DomShop/IBM-Data-Analyst-Capstone>

DASHBOARD TAB 1

Top 10 LanguageWorkedWith



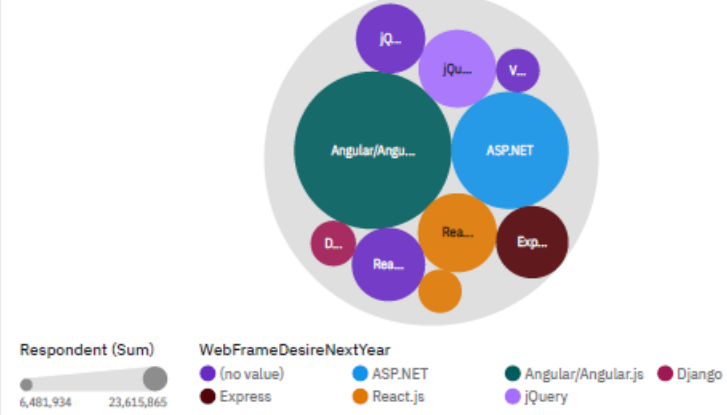
Top 10 DatabaseWorkedWith



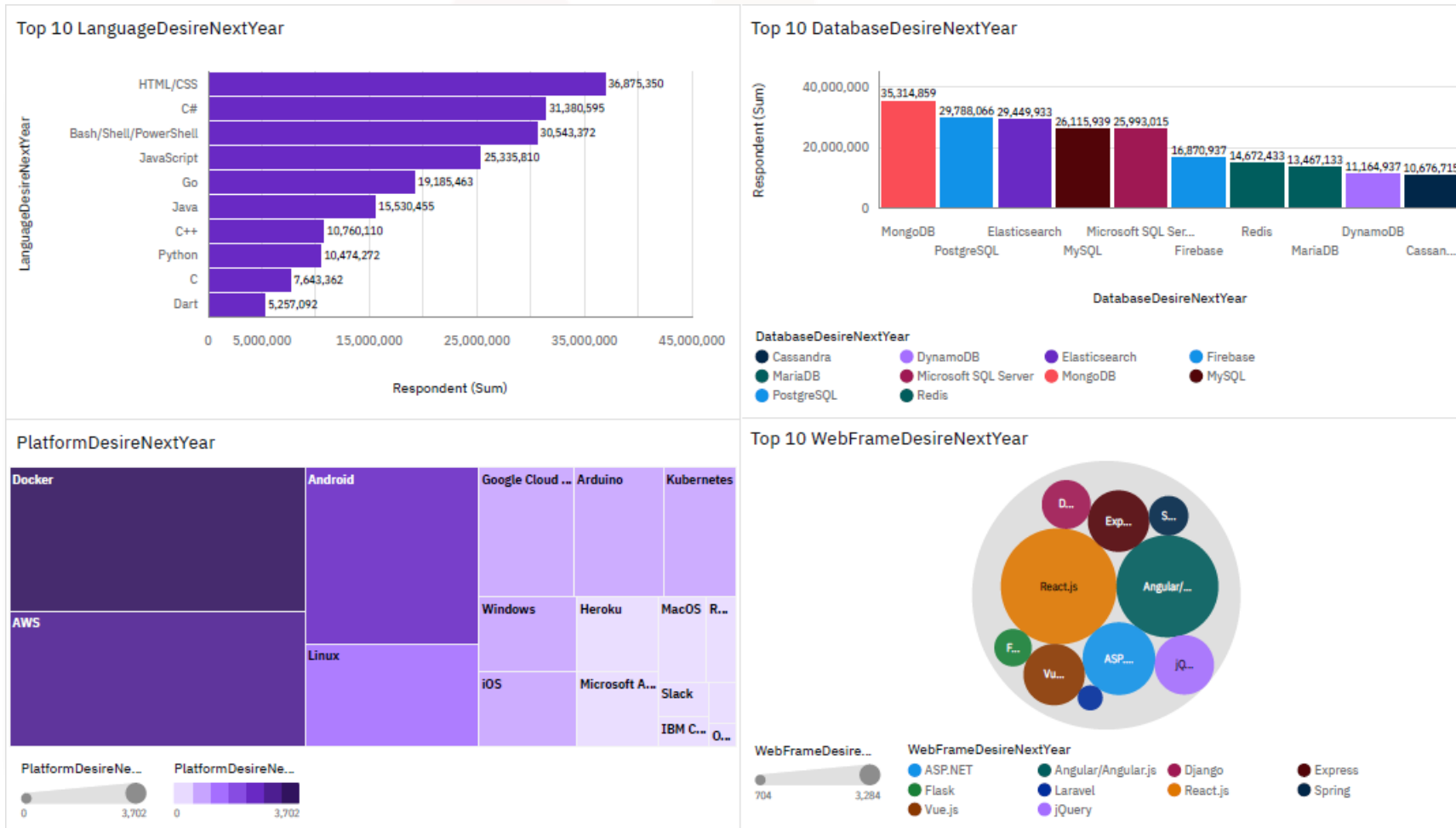
PlatformWorkedWith



Top 10 WebFrameWorkedWith

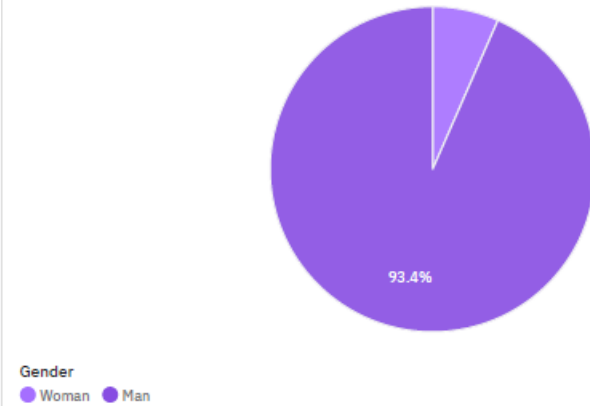


DASHBOARD TAB 2

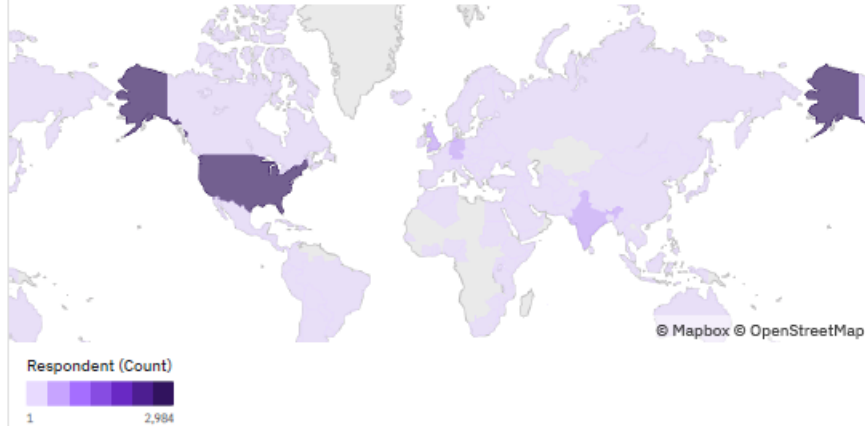


DASHBOARD TAB 3

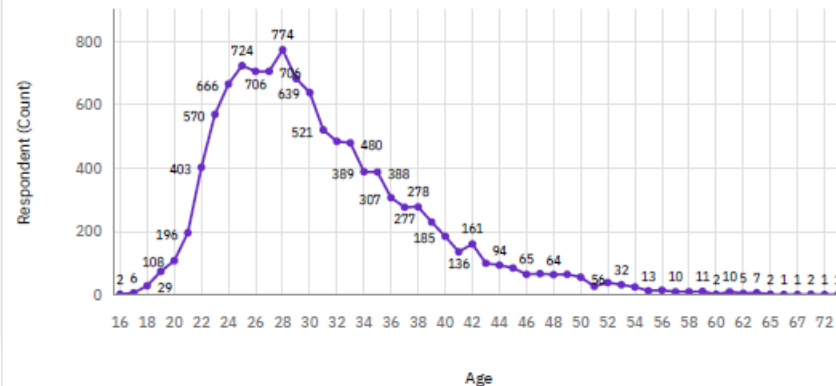
Respondent classified by Gender



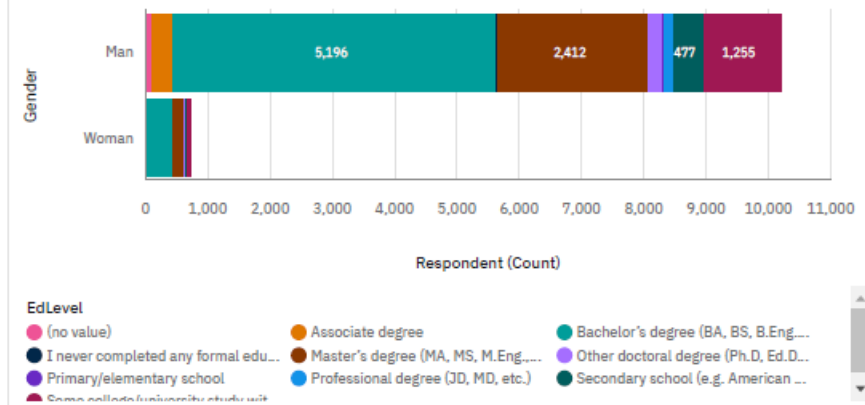
Respondent Count for Countries



Respondent Count by Age



Respondent Count by Gender, classified by Formal Education Level



DISCUSSION



OVERALL FINDINGS & IMPLICATIONS

Findings

- Finding 1 – Go & Python rises
- Finding 2 – MangoDB & PostgreSQL rises
- Finding 3 – 95% are mens respondants and most of them are from the US

Implications

- Implication 1 – Buy stock options and offer services using these languages
- Implication 2 – Same as 1
- Implication 3 – Claim for more women advices and foreign countries.

CONCLUSION



- Point 1 – Go & Python are strong in-demand
- Point 2 – MongoDB & PostgreSQL as well
- Point 3 – Cassandra demand grows up
- Point 4 – A few women returned the survey and a few countries only. We should retry more specific to these audiences.