Deske Interview Assessment Project

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Project objective

Design a simple web-based application that will enable users to get more insights from notifications from their existing mobile applications. The feature should be able to integrate with other applications either by scrapping notification or text data. You can use one mobile application to demonstrate this.

Introducing

NotifyAnalytics

Overview

NotifyAnalytics is a simple web application that performs analytics on Notification Log data scraped from a test subject's mobile device. For Data Scraping, I used the free android app [NotificationLog](#) which collected Notifications Data from the test subject's device for about 33 Hours for the initial testing phase.

Data Analytics principles were then applied to the collected data followed by the development of the simple web app to communicate insights visually..

Data Scraping with [NotificationLog App](#)

{"packageName":"com.google.android.googlequicksearchbox","postTime":1659965988480,"systemTime":1659965988752,"offset":7200000,"version":16,"sdk":3

Notification Logs List of collected data

Settings

Info

Notifications logged
6

Options

Log text
Log the actual notification content. This increases the size of the log file but allows you to read past messages.

Log ongoing
Log ongoing notifications, such as downloads. This creates a large number of additional log entries.

Actions

Export log
Export the log as a JSON file. This might take a while.

Delete log
Delete all logged notifications. You will be asked to confirm this action.

Rate app
Rate the app on the Google Play Store.

Export Log as Json

How the NotifyAnalytics WebApp works
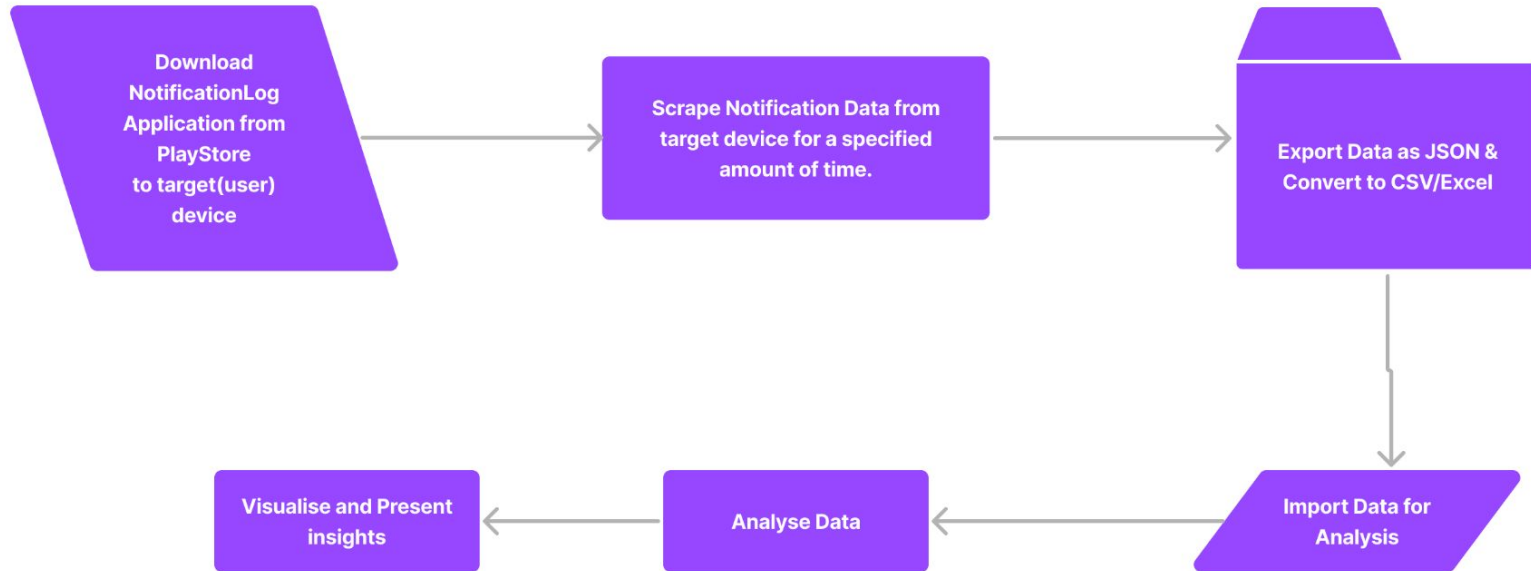
Technical Requirements

1. Python Programming Language
2. Jupyter Notebook
3. Streamlit
4. Pandas
5. NumPy
6. Matplotlib
7. Seaborn
8. Notification Log Mobile App
9. JSON to CSV Converter

UI Mockups
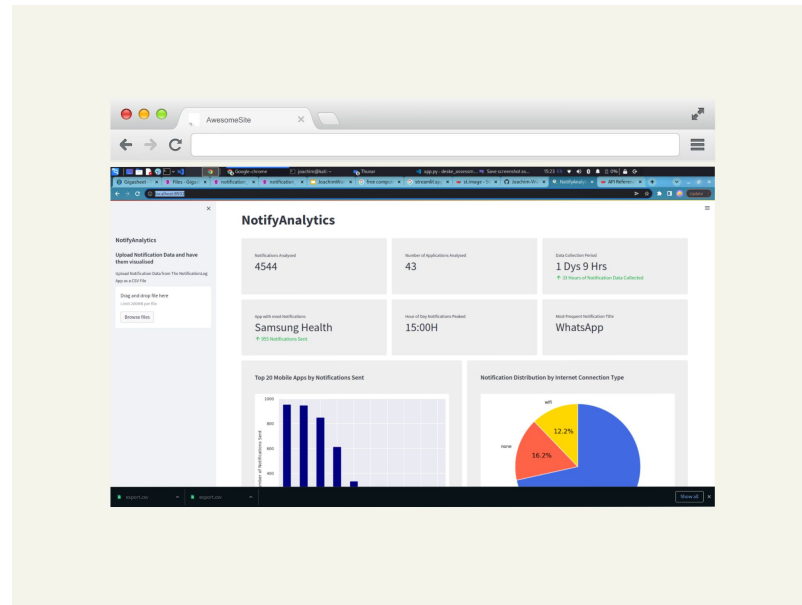
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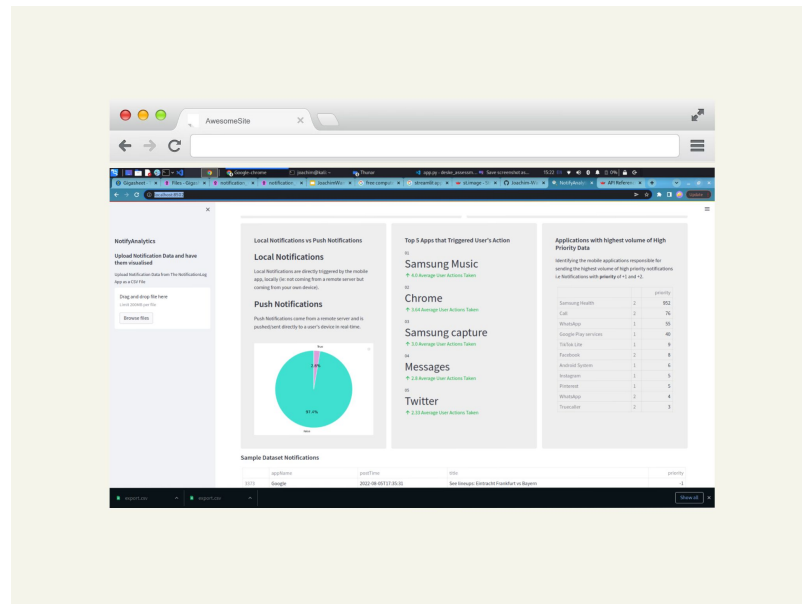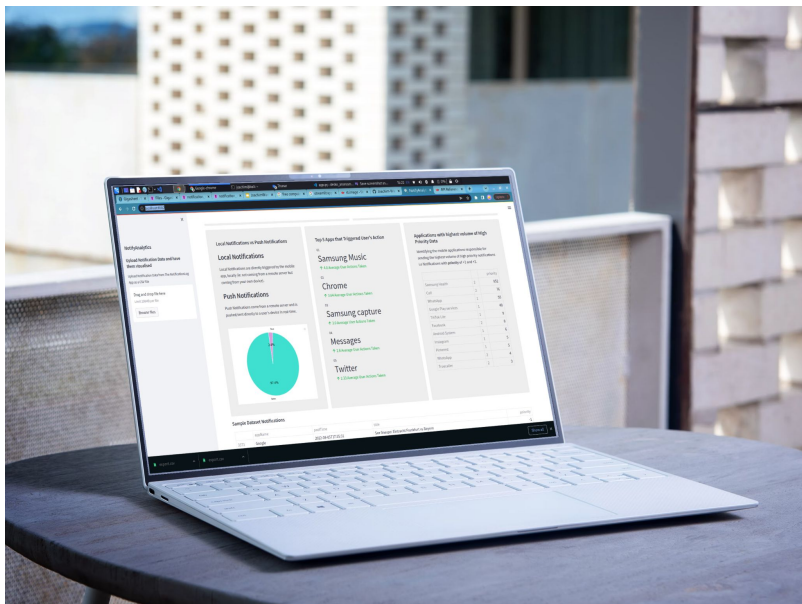
My Toothbrush Effect

For my additional feature, I went for an **upload feature** that allows users to **upload csv/excel data scraped using Notification Log Mobile App**.

The Data is then analysed and visualised in **real time** allowing for **automatic updates** to the data visualisations

Locations

Select five African countries by way of selecting cities, that you would select for entry this year, in order to offer the feature - thereby highlight the strategy

I would pilot this project in the following African cities; Nairobi, Kigali, Accra, Lagos, Cairo. These cities are some of the most advanced in the African continent and have a solid base of technological advancements that allow for growth in the Tech and Big Data sectors in the cities.

I would first start by piloting the project in Kigali as it is relatively small compared to the rest and has a habitable environment for performing a limited trial run to feasibility analysis before scaling.

Performance Assessment

Which software would you recommend to track a research strategy across five cities in Africa?

I would recommend two products that I enjoy using when planning for projects. **_Notion_** & **_ClickUp._**

Notion is project management and note-taking software. Notion is software designed to help members of a company or organization coordinate deadlines, objectives, and assignments for the sake of efficiency and productivity. It would be ideal for planning towards this research's strategy planning.

ClickUp allows freelancers to send and receive mails while managing their work in one place. The platform allows you to compose and reply directly without going to your email app. For freelancers working as a team, you can add attachments to various tasks and tag your team members to keep the communication flowing. Another great tool for research strategy planning.

Benchmark

Pick a company in the African economy in which you admire the management of their information technology activities inform us what made you settle for your choice.

Safaricom

Coming from Kenya, I have watched Safaricom evolve over the years. Safaricom has been around for well over 20 years yet their product and service delivery to the public has grown.

The organisation has grown from a telecommunications company to a Big Tech giant in Kenya as it dominates domains like Internet Service Provision, Mobile Money(M-Pesa) among other competitive offerings.

I settled for this choice once I came to Kigali and realised that MTN's offerings were not as competitive and as exciting as those Safaricom offered. With MTN being an international brand, I feel that Safaricom are far better at marketing.

Ethics

Pick any organization in the global economy in which you admire their code of ethics.

I admire Tesla, the company. I admire the work ethic that the team there shows. From almost going broke to now becoming one of the green energy leading brands in the automobile industry.

I admire how the management reacted when the company was faced with a 'sudden death' moment as they faced bankruptcy in 2008. The management and teams' resilience and belief in their product kept them afloat and they are now competing against seasoned brands like Ford & Mitsubishi.

Rank

Arrange These In Rank Of Whose Interest You Personally Seek To Tend To At Any Given Time -
With The One You List First The Highest & That Which You List Last, The Lowest

1. Clients

The Client comes 1st as they are also valuable to business and they are they reason the business is running.

2. Employer

I believe the Employer's needs are also paramount as they are aware of their company's vision and need to make sure guidelines and protocols are observed

3. Self

I would place self at a not too distant 3rd as I should also look out for my self interests in an ethical and professional setting.

Extracurricular

Arrange These In Rank Of Whose Interest
You Personally Seek To Tend To At Any Given
Time -
With The One You List First The Highest &
That Which You List Last, The Lowest

1.   Greatest Achievement so far

My greatest achievement so far was being a part of
the inaugural organising team for the first ever
TEDxALURwanda event held on October 25th,
2019.

2.   A None Professional Group Or Activity

I believe the Employer's needs are also paramount
as they are aware of their company's vision and
need to make sure guidelines and protocols are
observed

3.   Rating

7/10

Prompts

Expectations on Artificial intelligence

Artificial Intelligence is about to transform many if not all industries by 2030. New jobs will come along as automation takes over industries. Artificial intelligence will only grow bigger as the world embraces smart technologies across numerous industries.

Link to Deployed Web Application

Link to Video Recording of Project

[Link to Extensive Report with Source Code](#)

Thank you.