Team Thunderbytes

Problem Identified

1)There is no scarcity in the number of promotional offers and deals received by potential customers. Simultaneously, a very small fraction of these offers actually end up being redeemed at the company.
Thus, there exists a vast divide between the supply and demand.

We sought to systematically identify the issues behind this and provide an easy to use and highly effective solution to this.

2)Due to the sheer number of offers, users are unable to obtain the deals which are actually relevant to them.

3)A lot of the users either don’t satisfy the offer’s eligibility criteria or the offers end up expiring by the date of redemption, thus increasing user frustration.

3)Similarly, companies do not seem to have an effective model in place to attract users due to the sheer wastage of advertisement resources on uninterested users.

Objective and Identified Solutions

1)Our objective was to create a system that provided users with maximum savings based on their bank name, card type, received messages as well as the physical pamphlets in their possession.

2)We proceeded to obtain the most relevant details by making a tool to periodically scrape the corresponding banking websites and obtain the coupon details based on the entered user data.

3)This database was supplemented by efficient sorting algorithms to sort data based on the discount amount and expiry data.

4)The easy-to-use and feature-filled CouponHunt app was built to make swiping the best deals as pleasant as possible.

5)The ability to scrape messages to obtain relevant offers based on NLP has been built into the app.

6)The app also contains an OCR scanner to similarly obtain offer details and reminders through NLP

Technical Framework

1) The scraping framework has been built using python due to its extensive support for data handling.

2)The URLs of the numerous banking website offer pages has been scraped using the XPath of the relevant offer details on each page.

3)This data is periodically fed into the database residing in the server, every two hours.

4)MongoDB has been used due to its versatility since the numerous permutations of changes in offer details during periodic updation and their scraping availability makes a relational database more complicated to manage.

5)Crontab has been used for periodic database updation due to its simplicity and reliability

6)The CouponHunt app has been built using React Native, due to its portability and the sheer number of libraries it has support for.

7)The OCR scanner has been implemented using the Tesseract API.

8)NLP to obtain the offer details has been obtained using NER.

8)AWS has been used to host the server.