



# CodeStreet'21



Idea Submission



# ZERONE\_GIRLS

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**THEME:** OPEN BANKING : IDENTITY ON-DEMAND

# BACKGROUND

*With the digitisation of banking,almost every individual have multiple bank accounts opened for multiple purposes.But we hardly have time to monitor these accounts.*

*We neither have a clear picture of all our transactions nor have an idea of how to effectively use what is offered to us by the banks which will help us have a seamless banking experience.*



# PROBLEM STATEMENT

- As a customer, we have the liberty to have multiple bank accounts maintained for different purposes, but we hardly have time to **monitor our activities** and the purpose of having them is not served.
- **Storing multiple financial statements, multiple income statements** in case of migration of a bank account is a cumbersome task.
- Although we have many bank accounts, we do not **make use of their benefits and offers** and we always get to know about offers when we require them the least.



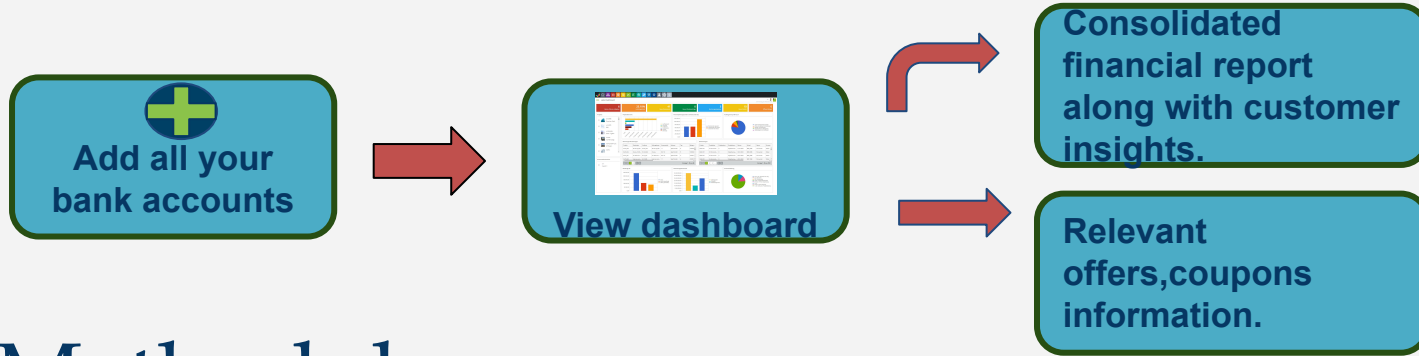
# Solution

To create a web application that consolidates all of one's financial data in a single dashboard and provides **useful insights regarding various offers and policies suitable for them.**

## Features :

1. **View categorized transaction statements**, expense pattern on the dashboard.
2. Informative graphs and visualizations to better understand how one is using their money.
3. Easily find **best most relevant offers available** for an account holder at the same place.
4. Get **notification alerts on expiration** of cashback offers, discounts, coupons, vouchers, etc.
5. **Information to the banks on new offers** that can be brought for their customers.

# Use case :



# Methodology :

To provide useful personalized insights to the customers, we analyze the user's transactions and understand their current state of expenses. Then identify areas in which one is spending more and find relevant offers and policies matching those areas and suggest them accordingly.

A ranking algorithm will also be used to rank the offers and policies and list it to the users according to the priority.

# Algorithm

## 1. Input

Transaction details from their accounts in different banks and personal details like age, gender, etc of the customer.

## 2. Categorization

Identify groups among the transactions and find expense amount in each category.

## 3. Analyzation

Using data analytics techniques (plotting expense distribution, etc) find the areas in which the expenditure is more, less and even areas in which expense grows monthly.

## 4. Output

Using insights from the above analysis along with other characteristics like age, gender, merchant frequently contacted, transaction amount, etc of the customer, we find the best suitable offers, discounts, etc provided by the different banks that the customer is a part of.

## 5. Ranking the output

For better customer experience the output is prioritized based on individual's expense patterns using methods like Mean Average Precision.

## 6. Notifications

General insights relevant to the bank is shared to the bank and the customer is notified of expiring offers or services.

# Work Flow of the application

## GRANT ACCESS

The account holder should grant access to use their account data so that the data will be available via Open Banking API's.

## DETECT SPENDING PATTERN

We need to detect and categorise the spending patterns and rank them for displaying personalised offers.

## PROCESSING BY THE APPLICATION

The application processes the data and displays personalized offerings by the banks and a report is generated and mailed to the customer with the behavior statistics and to the banks with the effectiveness of their offerings.

## REPORT TO THE BANKS

- The % of their customers who made use of any of their offers and services.
- Identification of the most expensive category of spending among their customers.
- Effectiveness of offers provided by the bank.
- Suggestions to make their offerings more personalized for every user.

## REPORT TO THE CUSTOMER

- Identification of the most expensive category of spending.
- % of bank coupons/offers that are used by the customer.
- A monthly snapshot of spending patterns.
- Comparison of this customer's behavior with general behaviour of app users.





To develop  
necessary algos



Database



Open Banking  
API s for  
development.

# Technology Stack



Front-end



Back-end



Hosting  
application

# NOVELTY

This will **help banks in offering more personalised offers** and give them the an idea on the effectiveness of their offers.

This solution will also **improve financial literacy** of people by analysing their spending patterns and bringing in personalised offers.

## FUTURE SCOPE

*We can also add some additional security features to identify unauthorised access and transactions.*

*With the help of spending patterns, we can also predict the future needs of the customer.*

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THANK  
YOU

