Problem Specification

**GOAL**

Develop a personal banking and management app that will allow seamless finance management and tracking, allowing users to effortlessly keep track of their expenditures, saving goals, and etc.

**FEATURES**

* User Data Storage

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name | E-Mail | Card # | Card Exp. | Mobile # |  |  |

* + Create new profiles, modify profiles
* Account management
  + Multiple Account Management

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Acc. Name | Account # | Card # | Card Exp. |  |  |  |
| E-mail associated | |  |  |  |  |  |

* + Tracking (Java objects):
    - Monthly expenditure
    - Monthly income
    - Monthly withdrawals
    - Yearly expenditure
    - Yearly income
    - Yearly withdrawal
  + Statistical data (ML with python/Azure):
    - Automatic data-taking directly from account (encrypted connectivity to user’s bank account and analysis of account transactions)  
      🡪 **analyze appropriate data**  
      🡪 **check if already manually entered**/error
    - Classification of expenditure:
      * Food and groceries
      * Entertainment
      * Education
      * Insurance and Bills
      * Rent
      * Miscellaneous
      * Personalized additional classifications
    - Withdrawals will cause an alert until user-filled (sms/e-mail sent)  
      🡪 allow descriptions for every withdrawal
    - Classification of income
      * Paycheck/salary
      * Savings
      * Interest
      * Personalized additional classifications
    - **Training AI to identify new classifications (keywords)**
    - Credit card availability
      * Credit limit tracking
      * Credit card pay date
      * Credit score approximation

🡪 must constantly validate if number on account is the same as the number on the account in-app.

* + Account sharing option
    - Allow access to certain parts of account to be viewed by authorized users (custom password and user generated)
  + Account summary
    - Generate monthly/yearly accounts sent to user (e-mail/alert)
    - Of course, password protected (with default if not set)
  + Manually add transactions
* Encourages savings
  + Savings tracking
  + Virtual chatbot
* User Interface
  + Web Interface
  + App Interface (Android and iPhone)