App development project
Open university
Spring 2023

MoneyMate

Milestone 2 - ALFA

AGENDA

1. Demo
2. Must haves
3. Nice to haves
4. Progress
5. Work Distribution
6. Telegram API
7. Timeline

MoneyMate Demo

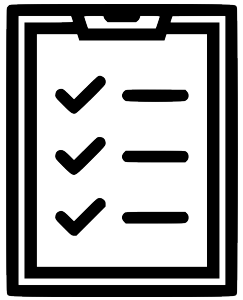
FEATURES

MUST HAVE

- ✔ Telegram chat bot
  - ✔ Supports both group and private chat
  - ✔ Admin capabilities: data manipulation (category change)
  - ✔ User capabilities: data insertion
- ✔ UI dashboard with summaries of the expenses
  - ✔ Expense tracker
  - ✔ Analytic graphs
  - ✔ Group & user hierarchy
- ✔ DB manipulation

FEATURES

NICE TO HAVE



- Savings goals
- Add income

✔ Break even

- Access to site via bot – no credentials required
- Cyclic payments
- UI – payments breakdown
- Monthly bar chart

PROGRESS

UP TO NOW

- Feasibility study
- POC presentation
- Complete DB manipulation
- Add graphs to UI
- Finished must haves
- Back and Front Integration
- PostgreSQL implementation in Azure cloud

TECHNOLOGIES

Database

Uploaded the DB to Azure and connected the front and back to the DB.

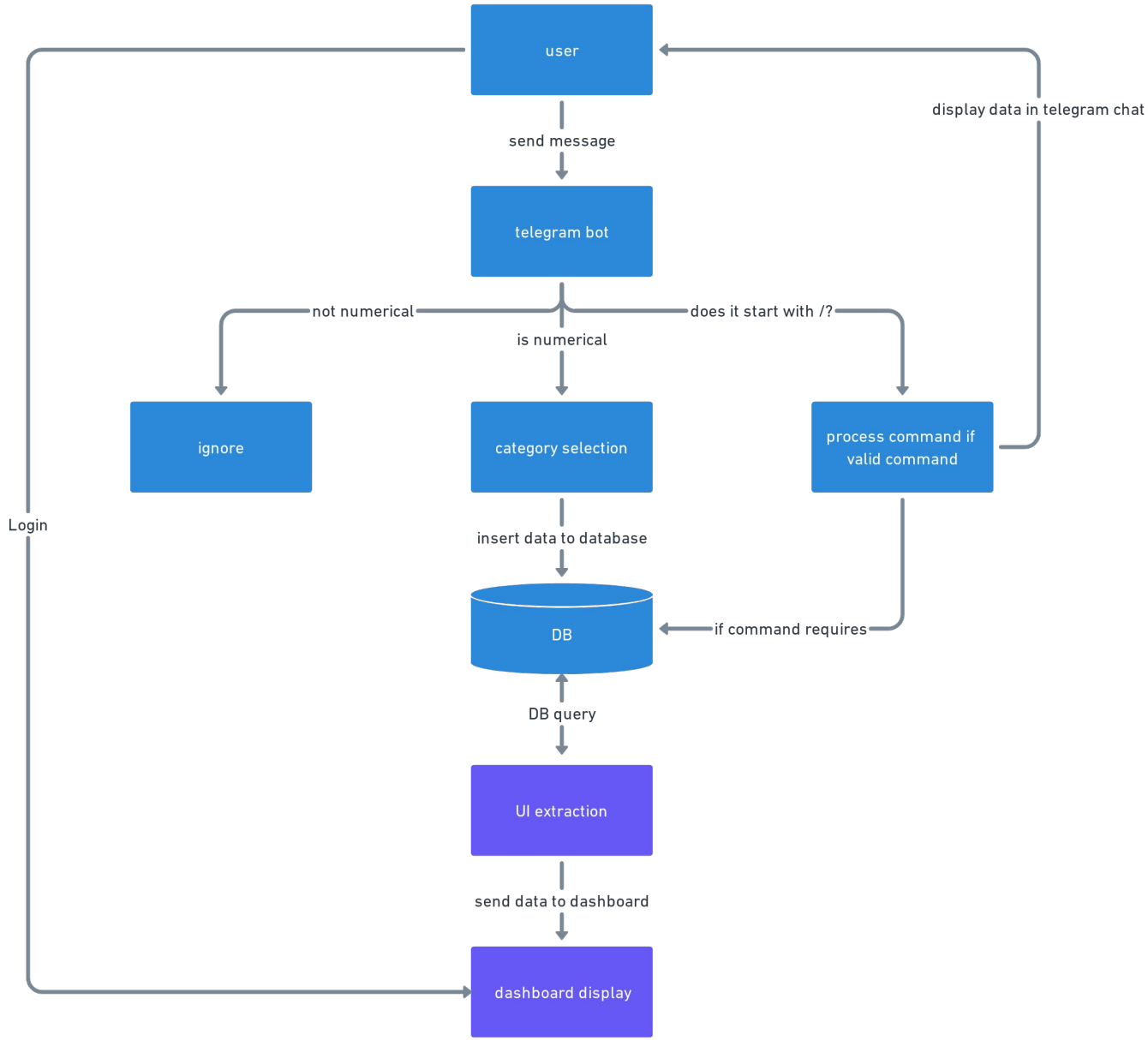
Frontend

Using node JS with react. Using prisma for easy work with the DB, using chakra UI for design

Backend

Connection to Telegram, psycopg2 for DB connection, pandas and pyplot for visualization

FLOW CHART:


user
send message
telegram bot
not numerical
does it start with /?
is numerical
ignore
category selection
process command if valid command
display data in telegram chat
Login
insert data to database
DB
if command requires
DB query
UI extraction
send data to dashboard
dashboard display

Planned

1. Database
2. Admin role
3. Login
4. Bot startup

Changes

1. Changed structure of DB
2. Split admin role to two parts: admin and group manager
3. Added authentication for login
4. Group initialization via bot

WORK DISTRIBUTION

BackEnd
FrontEnd
Design

BackEnd
Database
Upload

BackEnd

FrontEnd
Database
structure

FrontEnd

PROCESS

Separate development

Front & Back end started development as per design

Database integration

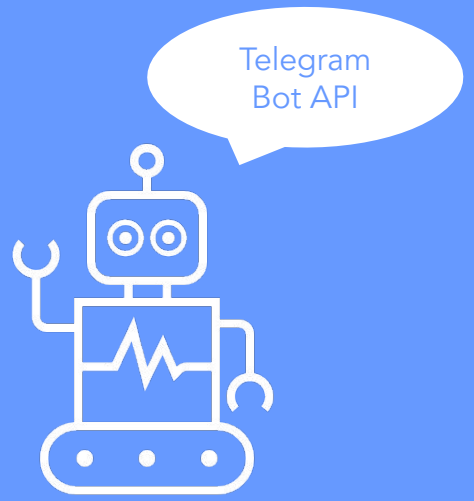
Database changes as we understood better the data structure we need

Frontend & Backend Integration

After most of the development of the must haves was done, we connected the front to the backend and started integration with data insertion via bot and data extraction via UI

API:

Telegram Bot



- Register via @BotFather on Telegram and receive an authentication token
- Create custom tools using the bot
- UX design in chat
- Data extraction from Telegram groups

TIMELINE

May 17th

Finish must have features
ALFA presentation

June 6th

Stop development on nice to have features

June 12th

SUBMISSION at Microsoft

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QUESTIONS?