

Finances Management Application

Saba Nizharadze^a Tamta Tchavtchanidze^b Paata Barbakadze^c Nikoloz Tsiklauri^d

e-mail: saba.nizharadze757@ens.tsu.edu.ge^a

e-mail: tamta.chavchanidze703@ens.tsu.edu.ge^b

e-mail: paata.barbakadze920@ens.tsu.edu.ge^c

e-mail: nikoloz.tsiklauri640@ens.tsu.ge^d

Department of Computer Sciences, Faculty of Exact
and Natural Sciences, Ivane Javakhishvili Tbilisi State
University, Ilia Chavchavadze Avenue № 1

The project aims to develop an innovative mobile application that helps users manage their personal finances more effectively. It addresses common challenges such as overspending, lack of savings, and unclear financial goals. Unlike existing financial apps that focus mainly on static data visualization, this application provides dynamic analysis and personalized recommendations.

The solution is based on analyzing the user's financial behavior and delivering individualized advice tailored to their habits and needs. The recommendation system relies on algorithm-based logic, including rule-based and dynamic personalized suggestions. In the future, machine learning models may be integrated for deeper insights.

The technical implementation includes:

- Mobile development using **React Native** [4]
- Backend using **Nest.js** [3]
- Data storage with **PostgreSQL** [1]
- Authentication with **JWT (JSON Web Token)** Protocol
- Data analysis and personalized suggestions

References

[1] PostgreSQL Documentation – <https://www.postgresql.org/docs>

[2] Eric Freeman, Elisabeth Robson – *Head First Design Patterns*

[3] NestJS Documentation - <https://docs.nestjs.com/>

[4] React Native Documentation - <https://reactnative.dev/docs/getting-started>