BSc Project Laboratory Task Description

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Development of React based budget tracking web application

**Topic introduction:**

This project will focus on creating a web application that will allow users to record their personal expenses and track how much money they spend. Moreover, the user will be able to have a better understanding on which categories they spend the most money (expenses are categorized), and which share of their budget is left to be spent for the current month.

**Planned technologies, architectures, main libraries:**

The following technologies are planned to be researched and implemented during the project course:

Frontend:

* JavaScript
* HTML5, CSS

Backend:

* NodeJS
* MongoDB

A budget-tracking application called “Greedy Gorilla” is a React single-page web application that communicates with the NodeJS microservice which uses MongoDB to store data. The following design patterns will be used as best-practices in building React application: stateless and controlled components, react hooks[[1]](#footnote-1).

The following libraries are intended to be used:

Frontend:

* React
* Bootstrap

Backend:

* Express

**Planned features and use-cases:**

Frontend:

* Add, edit, remove expense,
* Sort by categories
* Calculating the percentage of spent and remaining budget.
* Display on a graph spending by categories and by months.

Backend:

* registration, sign in
* CRUD (Create, Read, Update, Delete) user data

**Expected results and experience of the Project Laboratory:**

By the end of the semester the technologies listed above should be learnt from zero to the level that will allow to create a functioning application. The finished product should be easy to understand and ready to use. An example user can be created to demonstrate the work of the application. Moreover, a documentation and presentation should be created to illustrate the use of the application.

**Online address(es) of the repository:**

https://github.com/LiubovRukhlina/Budget-Tracker

**Supervisor at the department:** David Sik, assistant lecturer

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1. https://www.uxpin.com/studio/blog/react-design-patterns/ [↑](#footnote-ref-1)