PERSONAL EXPENSE TRACKER

A PROJECT REPORT

Submitted by

MANISHA SRI V	**(19CSR057)**
MADHUNISHA P K	**(19CSR055)**
JEGATHSURIYA P	**(19CSR042)**
DEEPIKA S	**(19CSR019)**
MANOJKUMAR P	**(19CSR058)**

In partial fulfillment for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY,
ERODE – 638012

NOVEMBER 2022

ABSTRACT

Modern life offers a plethora of options of services and goods for consumers. As a result, people's expenses have gone up dramatically, e.g., compared to a decade ago, and the cost of living has been increasing day by day. Thus it becomes essential to keep a check on expenses in order to live a good life with a proper budget set up.

The iPhone device, designed and marketed by Apple Inc., is one of the top-selling smartphones in the USA, and with the launch of the new iPhone5 on September 21, 2012, whose sales have already surpassed the previous iPhone handsets (iPhone 4S, iPhone4) sales, it is apparent that people have been using smartphones as an organizational tool. XpensTrak, the Expense Tracker Mobile Application was developed for iPhone users to keep track of their expenses and determine whether they are spending as per their set budget. Potential users need to input the required data such as the expense amount, merchant, category, and date when the expense was made. Optional data such as sub-category and extra notes about the expense can be entered as well. The application allows users to track their expenses daily, weekly, monthly, and yearly in terms of summary, bar graphs, and pie-charts.

This mobile application is a full detailed expense tracker tool that will not only help users keep a check on their expenses, but also cut down the unrequired expenses, and thus will help provide a responsible lifestyle.

An analysis comparing existing expense tracking software with the one being introduced is provided.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Now a day's people are concerned about regularity of their daily expenses. This is done mainly for keep a track of the users' daily expenses to have a control of user's monthly expenses. Here's an android application named as "Expense Tracker Application" and this application is used to manage the user's daily expenses in a more coherent and manageable way. This application will help us to reduces the manual calculations for their daily expenses and also keep the track of the expenses. With the help of this application, user can calculate his total expenses per day and these results will stored for unique user. As the traditional methods of budgeting, we need to maintain the Excel sheets, Word Documents, notes, and files for the user daily and monthly expenses. There is no as such full-fledged solution to keep a track of our daily expenses easily.

Keeping a log in diary is a very monotonous process and also may sometimes lead into problems due to the manual calculations. Looking on all the above given conditions, we are trying to satisfy the user requirements by building a mobile application which will help them reduces their burdens. "Expense Tracker Application" is an application where one can enter their daily expenses and end of the day, they know their expenses in charts.

CHAPTER 2

LITERATURE REVIEW

The development of this application has been conducted in a stepwise manner using the well-defined methodology, RUP, customized according to the requirements of the system. Most of the goals set at the start of the development phase have been met. Security problems like web security or network security have also been treated in the design and development of the system, thus increasing the reliability of the system. Quality management issues have also been handled satisfactorily.

This project is work more efficient than the other income and expense tracker. The project successfully avoids the manual calculation for calculating the income and expense per month. The modules are developed efficiently and also in an attractive manner.

As the result, the user can make use of this application in his/her daily life. After being used it can be a part of daily life to update and view daily expenses and family expenses. This helps to keep track of expenses & manage it for the user as they are busy in their daily routine, they are not able to keep track of their incomes & expenses.

Some of the features are like enabling users to register to the application using an existing email or social network account, it will synchronize the user's profile information to the application. Apart from this, the application can be used to gather samples of data relatedto user's expenses with consents and use those sample data as parameters to assess patterns of spending. Using some data mining techniques expenses can be classified and can be used in market analysis and planning.

Mobikwik came up with a new feature in their app called Expense Manager. With this feature, you can track and manage your expenditures(expenses), savings, reminders and bill payments. This is a personal budget management app that tracks your expenditures andincome and gives you recommendations to make you economically strong. The main idea of

developing this feature for giving users a clear picture that how much they are spending and where they are spending and when. We remind them to pay their utilities and card bills before the due date by using the same platform in just one tap, instead of going any other way. Also serving them by giving saving tips for their good future investment.

CHAPTER 3

SYSTEM ANALYSIS

3.1 EXISTING SYSTEM

The Expense tracker existing system does not provide the user portable device management level, existing system only used on desktop software so unable to update anywhere expenses done and unable to update the location of the expense details disruptive that the proposed system provides. In existing, we need to maintain the Excel sheets, CSV files for the user daily, weekly and monthly expenses. In existing, there is no as such complete solution to keep a track of its daily expenses easily. To do so a person as to keep a log in a diary or in a computer system, also all the calculations need to be done by the user which may sometimes results in mistakes leading to losses. The existing system is not user friendly because data is not maintained perfectly.

3.2 PROPOSED SYSTEM

This project provides a user friendly platform. The user can set limit over their expenses on certain categories. If the limit exceeds then the tracker remainds the user with an alert mail. The expenses are represented in graphs in order to understand our expenses. This become very useful for the people to make their expenses in a correct way.

CHAPTER 4

SOFTWARE SPECIFICATIONS

4.1 SOFTWARE

- Flask
- IBM Kubernetes
- IBM cloud
- IBM Container Registry
- IBM DB2
- Docker

4.1.1 Flask

Figure 4.1 Flask

Flask is a web framework that provides libraries to build lightweight web applications in python. It is developed by **Armin Ronacher** who leads an international group of python enthusiasts (POCCO). It is based on WSGI toolkit and jinja2 template engine. Flask is considered as a micro framework. To install flask on the system, python 2.7 or higher requiredto installed on our system. However, using python 3 for the development in the flask is good.

4.1.2 Kubernetes

Figure 4.2 Kubernetes

Kubernetes, also known as K8s, is an open-source system for automating deployment, scaling, and management of containerized applications. It groups containers that make up an application into logical units for easy management and discovery. Kubernetes builds upon 15 years of experience of running production workloads at Google, combined with best-of-breed ideas and practices from the community.

4.1.3 IBM Cloud

Figure 4.3 IBM Cloud

IBM Cloud Paks are software products for hybrid clouds that enable you to develop apps once and deploy them anywhere. Virtual Private Cloud (VPC) is available as a public cloud

service that lets you establish your own private cloud-like computing environment on shared public cloud infrastructure.

4.1.4 IBM Container Registry

Figure 4.4 IBM Containery Registry

Use IBM Cloud Container Registry to store and access private container images inhighly available and scalable architecture. IBM Cloud Container Registry provides a multi-tenant, highly available, scalable, and encrypted private image registry that is hosted and managed by IBM. You can use Container Registry by setting up your own image namespace and pushing container images to your namespace.

4.1.5 IBM DB2

Figure 4.5 IBM DB2

IBM DB2 is a family of data management products, including the db2 relational database. The products feature AI-Powered capabilities to help you modernize the management of both structured and unstructured data across on premises and multi-cloud environments.

4.1.6 Docker

Figure 4.6 DOCKER

Docker is a software platform that allows you to build, test and deploy applications quickly. Docker packages software into standardized units called containers that have everything the software needs to run including libraries, system tools, code and runtime.

4.2 LANGUAGES USED

- Python
- HTML
- CSS
- JavaScript

4.2.1 Python

Figure 4.7 Python

Python is a computer programming language often used to build websites and software, automate tasks and conduct data analysis. Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems. Expense tracker is a simple project developed using python which helps us to analyse our expenses by storing them in a systematic tabular form.

4.2.2 HTML

Figure 4.8 HTML

HTML is the language for describing the structure of webpages. HTML gives authors the means to: publish online documents with headings, text, tables, lists, photos, etc. Retrieve online information via hypertext links, at the click of a button. It forms the primary structure of a webpage.

4.2.1 CSS

Figure 4.9 CSS

Cascading Style sheets, fondly referred to as CSS. Is a simple design language intended to simplify the process of making webpages presentable. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variation in display for different devices and screen sizes as well as a variety of other effects.

4.2.1 JavaScript

Figure 4.9 JavaScript

JavaScript is a dynamic programming language that is used for web-development, in web applications, for game development and lots more. It allows you to implement dynamic features on web pages that cannot be done with only HTML and CSS. It is a language that supports Math calculations, allows you to dynamically add HTML contents to the DOM, creates dynamic style declarations, fetches contents from another website, and lots more.

CONCLUSION

6.1 CONCLUSION

The new system has overcome most of the limitations of the existing system and works according t the design specification given. The project what we have developed is work more efficient than the other income and expense tracker. The project successfully avoids the manual calculation for avoiding calculating the income and expense per month. The modules are developed with efficient and also in an attractive manner. The developed systems dispensethe problem and meet the needs of by providing reliable and comprehensive information. All the requirements projected by the user have been met by the system. The newly developed system consumes less processing time and all the details are updated and processed immediately. Since the screen provides online help messages and very user friendly, any user will get familiarized with its usage. Modules are designed to be highly flexible so that any failure requirements can be easily added to the modules without facing many problems. This ideal practice guarantees that the expenses tracked are accurately and in a timely manner.

CHAPTER 7

APPENDIX

7.1 SOURCE CODE

login.css

```
*
{
   margin: 0;
   padding: 0;
   box-sizing: border-box;
   font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', Roboto, Oxygen, Ubuntu, Cantarell, 'Open Sans', 'Helvetica Neue', sans-serif;
}
.page
{
   background-image: url("/static/img/Background-02.jpg");
   height: 100vh;
   background-size: 100% 100vh;
}
nav
{
   background: #71e0eb;
   display: flex;
   width: 100%;
   margin: auto;
   justify-content: space-around;
}
```

```
.right
{
    display: flex;
    justify-content: space-around;
    align-items: center;
    width: 25%;
    height: 60px

}
li
{
    list-style-type: none;
}
i
{
    font-size: x-large;
    padding: 5px;
}
.nav-item
{
    padding: 18px 18px 16px 18px;
    font-size: x-large;
    text-decoration: none;
    color: black;
}
.btn-signup
{
    padding: 5px 15px 7px 15px;
    text-decoration: none;
    background:#3B7DEA ;
    color: white;
```

```
    border-radius: 25px;
}
.title
{
    padding: 10px;
    color:#0951eb ;
    font-family: 'Trebuchet MS', 'Lucida Sans Unicode', 'Lucida Grande', 'Lucida Sans', Arial,
sans-serif;
    font-size: xx-large;
}
.main
{
    display:  flex;
    width: 100%;
    height: 90vh;
    justify-content: flex-end;
    align-items: center;
    position: absolute;
}
.box
{
    width: 40%;
    display: flex;
    flex-direction: column;
    border-radius: 25px;
    position: relative;
    right: 17%;
}
.some
{
    background-color: #a3d5f0;
```

```
    border-radius: 25px 25px 0 0;
    padding: 15px;
    margin-bottom: 5px;
    font-size: 18px;
    color: #a3d5f0;
}
.form
{
    background: #a3d5f0;
    border-radius: 0 0 25px 25px;
}
.form form
{
    margin : 10px 30px 0 30px;
    height:40vh;
    display:flex;
    flex-direction: column;
    justify-content: space-around;
}
.form:email, .form:email a {
  color: hsl(var(--fgColorH), var(--fgColorS), var(--fgColorL));
  font-size: 0.825rem;
  order: 4;
  text-align: center;
  margin-top: 0.25rem;
  outline: 1px dashed transparent;
  outline-offset: 2px;
  display: inline;
}
.uname,.pass
{
```

```
    font-size: 18px;
    border: none;
    background: none;
    outline: none;
    color: #0C0A18;
    border-bottom: 2px solid grey;
}
.uname:focus,.pass:focus
{
    border-color:#3B7DEA;
}
.submit
{
    padding: 10px 0;
    border: none;
    border-radius: 10px;
    font-weight: 525;
    font-size: 25px;
    background: #3B7DEA;
    color: #EEEEEE;
}
.submit:hover
{
    background: #EEEEEE;
    color: #3b7dea;
    cursor: pointer;
}
.form a
{
    margin-top: 0;
    color: #a3d5f0; }
```