

STUDENT EXPENSE TRACKING APPLICATION

SAUMYA DUBEY
Department of Computer Science and Engineering, Institute of Technology and Management, GIDA Gorakhpur, UP, India

PRAGYA DUBEY
Department of Computer Science and Engineering, Institute of Technology and Management, GIDA Gorakhpur, UP, India

RIGVED RISHABH KUMAR
Department of Computer Science and Engineering, Institute of Technology and Management, GIDA Gorakhpur, UP, India

Supervised by

AAISHA KHATOON

Assistant Professor, CSE, Institute of Technology and Management, GIDA, Gorakhpur, UP, India

ABSTRACT

This project is based on an expense and income tracking system. This project aims to create an easier, faster, and smooth tracking system between the money spent and the money earned. We are making an android application which is named "**STUDENT EXPENSE TRACKING APPLICATION**". This is an android application that is used to track the daily expense of a student. So, for a better expense tracking system, we developed a project that will help the users a lot. Most the student because of their busy schedule find it difficult to calculate their expense and income which is the one reason they face money crisis, in this case, a daily expense tracker can help the student to track income-expense day today and make life tension free and focus easily on their career.

It is like a digital diary that keeps a record of expenses done by a student. The application keeps track of money spent and the earnings of both of the students on a day-to-day basis. This application helps the user to easily calculate his/her expenses on daily basis and he/she has not to write down every transaction on paper and do the hectic calculation, it simply makes the task easier. It also has the feature that it gives warning messages if we are exceeding on our expenses and hence, we can limit our expenses and avoid overspending. If you spend less money than the daily expense allowed amount, the money left after spending is added into the user's savings. The amount of money saved can be used for celebrating a birthday, festival.

Keywords: Daily expense of a student, warning messages

1. INTRODUCTION

The "**STUDENT EXPENSE TRACKING APPLICATION**" is a versatile finance-related android application is made to be used on android devices. This android application can be used on all android devices above android version 5.0. It is efficiently prepared to give you the best options for financial planning. The application size is less than 20 MB. It doesn't need any high-end hardware specifications. It can easily run-on low-end devices. This application brings out expenses category-wise, this will help the user to check the amount of money spent on a particular category to manage their expenses better.

This application is developed using android studio for the front end and Firebase for the backend. Expense Tracker helps to keep the record of daily expenses and monthly income of users from any place and also bring on a monthly report of the expenditure in pdf format.

In this world of emerging technologies, almost everything is digitalized. With a large number of money transactions, it is difficult for the user to keep track of all your transaction. The "**STUDENT EXPENSE TRACKING APPLICATION**" app marks all the expenses and helps the user to keep an eye on his/her expenses so that the user is on a financially stable path. For using this application, the user has to sign up using the details like name, phone no, username, password, and confirm a password of the user. The user gets

registered just a single time, per user can get just one record. The whole minuteness of the income or expense can be seen, updated, or can be deleted as per the convenience of the student.

The quality of this app is that it is depicted in a way to help the students for better finance management planning so that they can manage and keep track of, analyse and optimize their budget or spending. In this application, we are also going to collect students' data with authenticated permissions, here we will analyse and monitor their different expenses in a very particular category or by distinct varieties of spending which will help us to work out in step with market trends. The conclusion will be derived using some basic techniques like clustering, classification, and association. during this world of growing technologies, everything is digitalized. With an oversized number of cash transactions and plenty of more things done by the scholars associated with money, it becomes difficult for the coed to stay track of all the transactions and spending. the most aim of this paper is to manage the private and group expenses of a student. Not many applications provide a range of features within one application. We develop an android application that keeps a record of student personal expenses like tuition, travel, hostel fee, food, etc.

2. BACKGROUND STUDY

the thought of developing this project in mobile platform for user convenience. Because whenever they create expenses immediately, they add in mobile application. a number of the concerns maintaining a private expense may be a BIG problem, in daily expenses over and over we don't know where the money goes. a number of the traditional methods accustomed tackle this problem in normal circumstances are like making use of a sticky notes by common users, Proficient people deals with this type of problems by using spreadsheets to record expense and employing a ledger to maintains the big amounts data by especially by expert people. As this shows that it's various methods employed by different people. This makes using this data contrary. there's still complication in areas like there's no assurance for data compatible, there are chances of crucial inputs are often missed and therefore the manual errors may sneak in. the info recorders aren't always handled, and it might be hectic process to possess overall view of these expenses. We believe a unique and a less complicated mobile application which handles these troubles easily. specified app is capable of recording the expenditure and giving broad view with easy to use the programme and this application is intelligent enough to shows the history of expenses noted within the app

3. PROPOSED SYSTEM

There are various applications on the play store for managing our expenses and keeping records of our spending. a number of the applications are like spend book, pocket wards, home budget, etc. The substantial a part of these applications aims to require input of cash and novels money related problems and learn the expenses by that. This application mainly focuses on tracking the expenses of a student and it works sort of a digital diary which will help the scholar to remain faraway from manually calculating everything using pen and paper. it's categories like tuition fees, food, clothing, travel, coaching, stationery, hostel fees, etc. Here we are able to see the status of our bills and it's convenient for middle-class people.

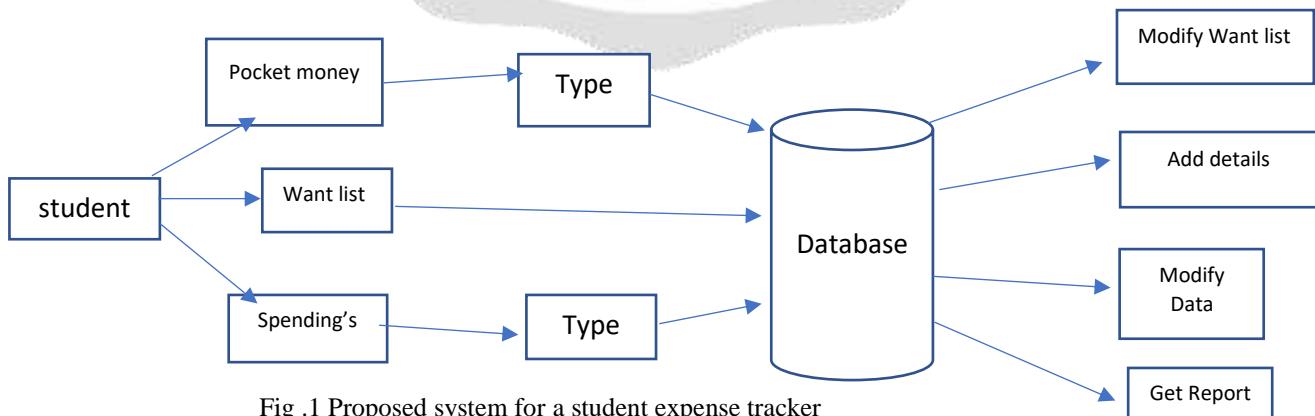


Fig .1 Proposed system for a student expense tracker

4. SEQUENCE DIAGRAM

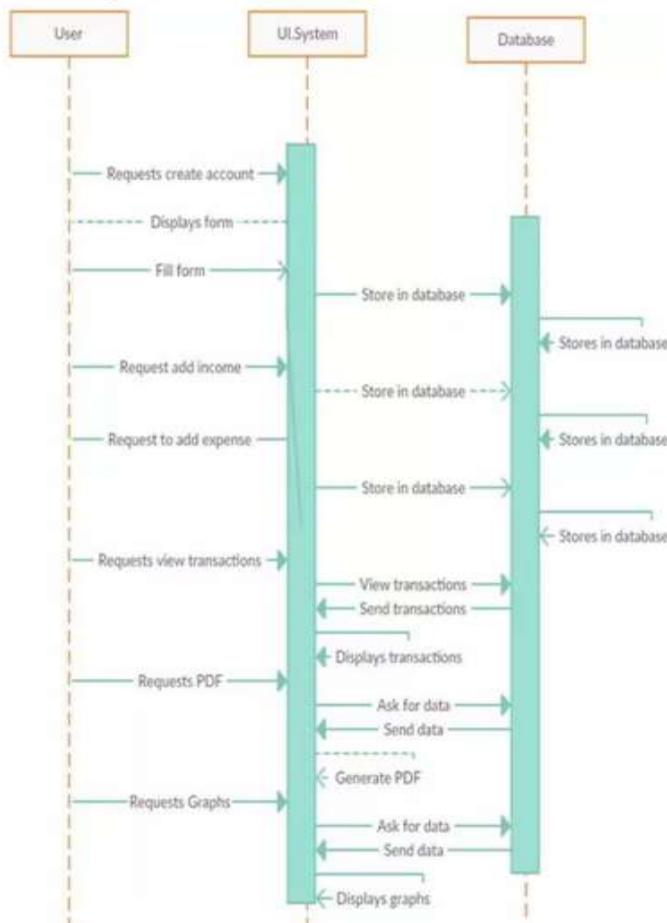


Fig.2 Sequence Diagram

5. FEASIBILITY STUDY

Technology has polluted in every sphere of our life. We are dependent on technology for almost all things of our life. Mobiles and tablets are ruling in the market all over the world in present times. In recent times cell phone technology has been considerable and on large- scale, and it is uncomplicated as compared to computers or laptops, which is required to link to the particular location. Indeed, cell phones are being an important segment of day-to-day lifestyle and time table as it is approachable to take all the time in any place rather than a laptop and personal computer. moreover, they can approach data no matter when and where by using data scheme given by telecom provider of on-the-air connections. Why not daily expense management? We are all familiar with our previous generations noting down their day-to-day expenses and spendings in a diary or copy. Meanwhile, here we give a domain where, in less time we can add our expenses and easily calculate it through a digital diary like application.

6. MODULES

i. MULTIPLE ACCOUNTS

Student can have more than one account. By clicking on the account tab, student has the choice present for signing up a new account and student will click the “+” sign option and after that a dialog box will come on the screen and the student will be able to provide the name of the account then after that name will be saved in the account tab. If a student desires to remove or deactivate the account made, then the user has to go and click the account name user want to deactivate. In this way that account will be deactivated.

ii. ADD EXPENSES

This component has the feature of addition of expenses. Here, the student will be adding his/her day-to-day expenditures. But this can be done by following the rule of providing the category of expenses and without which it will be impossible to add one. At the time student give details of any transaction then that particular transaction will be put in on transaction tabs. If the student wishes to remove that particular transaction, then the student has to long click the transaction and then it will be deleted from tabs.

iii. ADD CATEGORY

In this component student can add-on the categories. Each and every expense kept in the particular categories. Then only we can get the details very easily. Already few categories are defined in advance in the application. If student desires to add-on another category that is also provided in the application to add it.

iv. FILTER TRANSACTION VIEW

In the transaction tab, the student can filter the transaction. In the tab, student can choose the particular day, month and year and then choose the filter button and by providing the required day, month, and year, transactions will come on the screen. If the student desires to filter the transactions by providing details of that particular day, for example: - if student selects the day Monday, then all transactions will be noticed that were made on Monday.

v. VIEW ANALYTICS

The student has a pie chart option available for representation in the form of graphs. If the student clicks on the view analytics, it will go onto the statistics. When the student moves the cell phone on its axis, the cell phone's statistics will be started and it will provide the graphical representation in the form of pie chart. Pie chart will have a coloured and percentage view format.

vi. PDF REPORT

In the transaction tab the student is provided with an option which is available for creating a full report in PDF format. Student will click on the PDF button, then the full report in the form of PDF will be generated for the convenience of the student and also the student can see that report and that particular report will be automatically saved on the device.

7. RESULTS

So basically, the student can include this application in his/her daily routine by this he can be disciplined about his expenses and get better and better at saving, and utilize the money on learning new skills or buying presents for parents, etc. They will also focus on earning money and making new sources of money in turn getting a better future ahead. This application will also help in analysing the monthly expenditure.

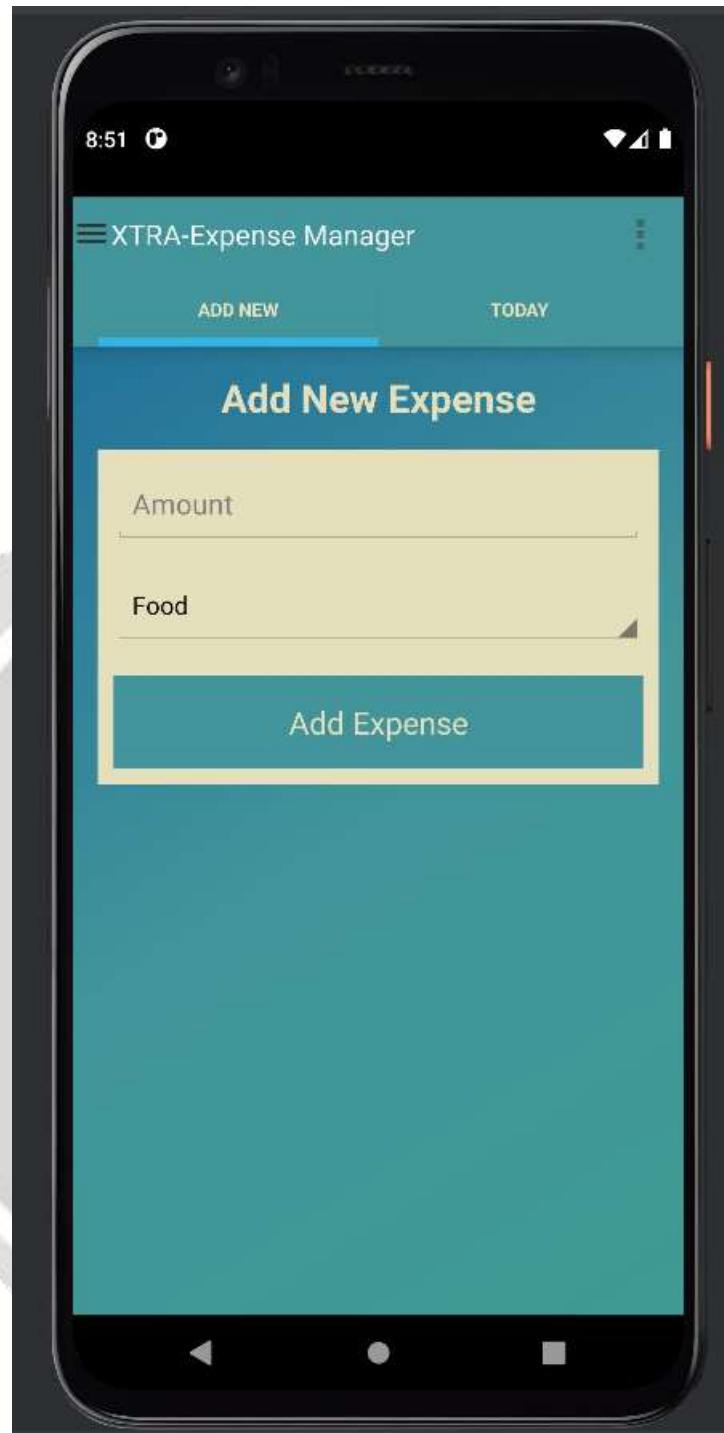


Fig 3. Xtra-application

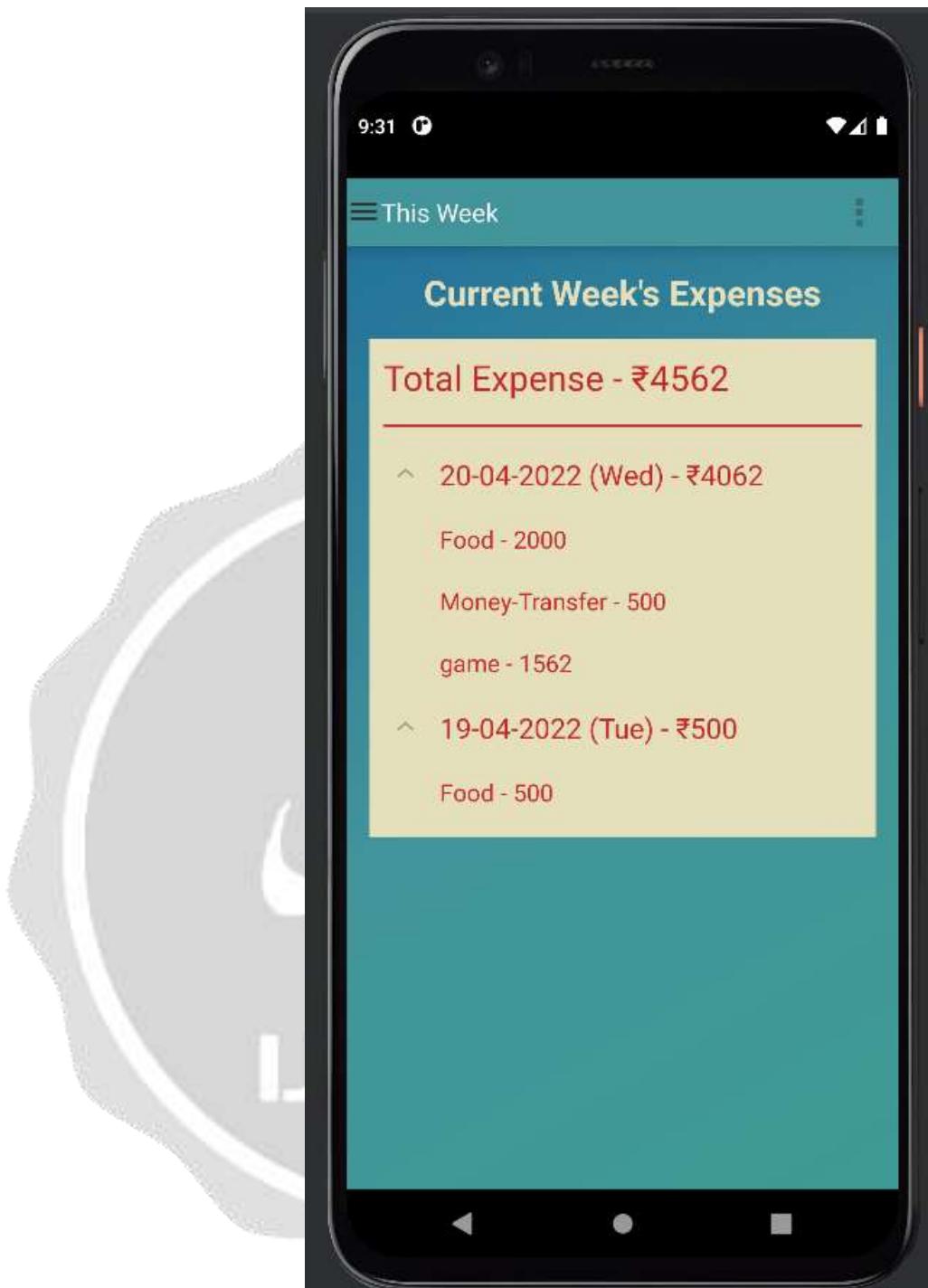


Fig 4. Result

8. CONCLUSION AND FUTURE WORK

Hence, this application can be treated as version-1, and later we will update and add new features to it accordingly. Once the user gets familiar with the settings of the application, then we can update it to version-2. And in this way the student task for managing his/her expenditures will become easy and can be noted down by the application as a digital diary. Hence, it will save much time of the student and he/she will be able to focus on fruitful works which will provide benefits to him.

Our future work will be to merge this application with credit/debit or any of the smart cards and will keep the record of every credit and debit. It will update the details automatically and we will be able to monitor our spending easily.

REFERENCES

1. ATIYA KAZI, PRAHULLA S. KHERADE, RAJ S. VILANKAR, PARAG M. SAWANT, "EXPENSE TRACKER", ICONIC RESEARCH AND ENGINEERING JOURNALS, PP 19-21, MAY 2021.
2. VELMURUGAN A, ALBERT MAYAN J, NIRANJANA P AND RICHARD FRANCIS "EXPENSE MANAGER APPLICATION " JOURNAL OF PHYSICS: CONFERENCE SERIES,2020
3. RAJAPRABHA M N," FAMILY EXPENSES MANAGER" VIT UNIVERSITY, VELLORE-632014, TAMANDU, INDIA, 14TH ICSET-2017, IOP PUBLISHING
4. GIRISH BEKARO AND SAMEER SUNHALO, "INTELLIGENT ONLINE BUDGET TRACKER", SCHOOL OF BUSINESS INFORMATICS AND SOFTWARE ENGINEERING, UNIVERSITY OF TECHNOLOGY, MAURITIUS, 2007.
5. YOUTUBE
https://youtu.be/p_54kpyfwie
6. ANDROID (OPERATING SYSTEM), WIKIPEDIA
[https://en.wikipedia.org/wiki/android_\(operating_system\)](https://en.wikipedia.org/wiki/android_(operating_system))
7. Y. ANITHA, R. RANJINI, S. GOMATHI, "EASY APP FOR EXPANSES MANAGER USING ANDROID", INTERNATIONAL JOURNALS OF COMPUTER TECHNIQUES, VOLUME: 3 ISSUE: 2, ISSN: 2394-2231 (MARCH-APRIL 2016).
8. N. ZAHIRAJAHAN MCA., M. PHIL, K. I. VINODHINI, "PERSONALIZED EXPENSE MANAGING ASSISTANT USING ANDROID", INTERNATIONAL JOURNALS OF COMPUTER TECHNIQUES (IJCT), VOLUME: 3 ISSUE: 2, ISSN: 2394-2231 (MARCH-APRIL 2016).
9. S. CHANDINI, T. POOJITHA, D. RANJITH, V. J. MOHAMMED AKRAM, M. S. VANI, V. RAJYALAKSHMI, "ONLINE INCOME AND EXPENSE TRACKER", INTERNATIONAL RESEARCH JOURNAL OF ENGINEERING AND TECHNOLOGY (IRJET), VOLUME: 06 ISSUE: 3, E-ISSN: 2395-0056, P-ISSN: 2395- 0072 (MARCH 2019).
10. P. THANAPAL, MOHAMMED YASEEN PATEL, T. P. LOKESH RAJ, AND J. SATHEESH KUMAR, "INCOME AND EXPENSE TRACKER", INDIAN JOURNAL OF SCIENCE AND TECHNOLOGY, VOL 8(S2), ISSN: 0974-5645 (JANUARY 2014).