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CHRIMATA: The Budgeting Application

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Abstract: In today's world there is a rapid growth in the economy and technology. Everything is being made easy and feasible for us human beings. Talking in terms of technology, there is a large usage of mobile applications and many other web applications. Mobile applications for food, clothing has been immensely increasing public attention. So here arises a question, why not an application for managing expenses in an efficient way? This paper focuses and presents a novel application (app) named Chrimata, a budgeting application to satisfy the customer with the available resources. Through this application an individual would be able to manage his/her budget based upon the timing and requirements. Thus it would be done the same with weekly expenses suggesting them the best solutions and enabling them in saving some money by sending alerts in case of overspending. The main aim of this application is to provide the customers with the best result of how they can use their money and based on the choices of the customer, this application gives its results based on the psychology of the individual that is entered at the time of registering. The result generated by this application is based on the age factor of an individual, the budget entered by the individual and the vast research analyzed data that were pretested by individuals of different age groups and back ground.

Keyword: Mobile application, Chrimata, wallet.

1. INTRODUCTION

A budget is a detailed summary of income and expenses for a given span of time. It helps to determine of how a person should economically think of his/her savings/earnings at any point of time. It provides a concrete, organized, and easily understandable breakdown of how much money does one have flowing in and how much flows out. It is assumed to be a valuable tool to help a person, prioritize on their spending and manage their money—no matter how much or how little they have.

Planning and monitoring the budget will help to identify wasteful expenditures, adapt quickly as per the financial situation changes, and achieve and plan for their financial goals. When one actually looks at the breakdown of the expenses, they may be surprised by what they find. This process is essential to fully grasping how things can add up.

Having a perfect budget strategy will decrease the stress levels by not just indicating how to manage the money but would rather be very helpful in analyzing and have a prior notifications of how money can be managed and put in place at the time of requirement. This sense of financial clarity is important for individuals of all age groups.

This application will require certain inputs based on which it will analyze the user's needs, mindset and provide the output. One of the inputs will be weekly budget, which will be placed in a WALLET. In other applications related to budgeting, there may be no provision for receiving message alerts from the application stating how much more money is left in the WALLET. There may also not be a provision for stating a suggestion to the user. This factor of understanding the mindset of the user, providing a suitable suggestive is an added feature to this application, chrimata.

This application will be best suited for managing personal finances for day to day users. Some applications which fall under the category of finance, calculates the daily budget based on income and fixed costs. Chrimata will not only make calculations like these but will also provide suggestions as to where and when the money has to be spent. It will suggest places for food, entertainment and much more. If there are any large purchases to be done, chrimata will help in saving the required money and some bonus money based on prior notice of the user's big purchase.

One added advantage of this app is the use of simple terms and not accounting language, which may be a barrier to user understanding. This application will be available for all smart phones. It would be from the basic version of ANDROID or WINDOWS or IOS. An enhanced service in this architecture is providing a proper and better security to the people who chose to use this architecture. Through this project, a comprehensive solution for managing expenses with ease can be accomplished. It provides a simple platform which is reliable and efficient for the user.

The latter part of the paper constitutes the following sections: Section 2 provides the literature survey in detail. Section 3 provides the architecture proposed for this budgeting application. Section 4 provides conclusion followed by References.

2. LITERATURE SURVEY

Vanja Smailovic et al. [1], proposed Implicit Social Networking for Mobile Users: Practical Social networking provides a resourceful platform for information retrieval and value-added interaction between telecom operators and their users. Practical social networks can group users based on certain criteria by utilizing user preferences in a unique fashion, providing an inventive medium for enhancing existing, as well as developing new social networking services. The research proposes the practical Social Networking, a location-aware implicit social networking platform for mobile users. Mobile users equipped with a Smartphone can use this Social Networking platform through a heap of context-aware services. Ning Wei et al. [2] discussed security issues on Mobile Ad Hoc Network for Mobile Commerce. Supakorn Kungpisdan [3] discussed the Analysis, Modeling, and Design of Secure Mobile Payment Systems. The outcome obtained from this research may contribute as a base for protocol designers and system implementers to model, design and implement secure mobile payment systems and to study their existing mobile payment systems. Long-Sheng Chen and Yi-Yi Yang [4] proposed identifying crucial factors for increasing primacy of customers in Mobile Shopping Services using agile development of information and technology and the well established wireless network environment, mobile shopping has been one of the captious customer behaviors in *e-commerce*. Sibel Kusimba et al.[5]proposed social networks of mobile money in Kenya. Rick Hayes et al. [6] proposed Tips for Mobile Application Security in managed security services, and has a world-class counter threat unit team of GIAC GCIA certified security analysts and multiple 24/7 security operations centers around the world.

3. PROPOSED ARCHITECTURE

To access this application, we need to download the app from the respective app stores. For instance, for downloading the app for iPhone we need to access the Apple App Store. After entering into the app store we need to search for the respective app and download it using a proper data connection, shown in Fig. 1. After downloading the app from the app store we just need to open the app and select register, to get registered with the app. The look and feel of the application is pre-made to be easier and user-friendly in order to be accessible to individuals with different age groups. At present the application is proposed to be made available on Android operating system but is in progress for experimentation on other operating systems as well.



Figure 1: User login and registration page



Figure 2: Architecture for user information page

On successful registration by filling all the required credentials as required by the application to give future financial results Fig 2 is appeared.

Figure 2 is a schematic architecture of how the page appears to be. For example a user has signed in.

First the user should click on wallet, where the weekly budget can be entered. After this step, the user should select the state, whether in crisis (shortage of money), overflow (more than sufficient money), or stable (sufficient money) which is a checkbox menu. Following this, there is a text area provided for the user to list his/her interests for example gaming, exploring new places, trying new eateries etc.

After clicking the submit button, Figure 3 displays an output based on the inputs given by the user in the first page. For example the user enters eateries as an interest, then the list of eateries situated nearby, suitable to the amount entered will be displayed and the user can select any option. Followed by another page Fig.4 which will show the option selected and will state the amount spent, amount left in the wallet and how much can be kept under reserve.



Figure 3: Output based on the inputs



Figure 4: Final output

If the amount left in the wallet is almost reaching its limit, a message alert will be sent to the registered mobile number. Therefore the user will be updated and suggested time to time of how effectively the money could be managed. The current applications available thought gives the limit of the amount within the wallet this particular application is planned to even give a brief of the upcoming purchases and suggestions of what could be planned for a given amount instantly. The user is free to select the same and on addition of their budget in their wallet they could proceed with their work. The main focus of this application is to provide users a friendly suggesting platform that to guide an individual how well and economical could they be within their budget based on their ages and their requirements that is always be altered. The look and feel of the application is as follows:

Table 1
Look and feel of the application

Age-Group	Request	Budget	Suggestions
> = 20	Clothing books entertainment	500	Saving books entertainment clothing
> = 29	Shares buy a vehicle clothing invest in property	50,000	Saving buy a vehicle invest in property
> = 45	Buy a house fixed deposit	70,000	Fixed deposit
> = 60	Charity pension plan	3,00,000	Pension plan

4. CONCLUSION

A huge step towards leading an independent life is financial independence. This means keeping track of your money - both the money that you spend and the money that you earn for a living. Money is necessary to live and survive in the society, but one doesn't need a lot of money to reach heights, be independent, and be happy. It is agreed that managing money is one of the most important skill for everyone. In fact, there are some approaches of teaching individuals how to manage money effectively and efficiently. This application provides that platform required by the individual.

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