

Moneys Financial Record Application Design for Mobile-Based Students

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ABSTRACT

Students who are in the transition period from youth to adulthood still do not have a stable emotional level that can manage and handle money. It takes careful preparation to handle funds so that the money earned can be used according to its purpose. We now live in the mobile era, therefore we need a mobile application. The design of this application begins with the identification of information needs and the presence of attractive and complete features in the application that make students interested in using it. The research findings show that students want a live app with features to track their expenses, income, and budget. Using Android as a foundation, the Moneysv app can be created. The mobile-based Moneysv Financial Management application uses the Java programming language, Notepad++ application software, and Android SDK, which types the program code and application logic. SQLite is used to create the database structure. With the Black Box testing approach, system testing procedures can be performed. "Black Box testing technique is a kind of testing that deals with software whose internal performance is unknown. In this research, an application by the name of Moneysv is a financial record application, among others, a student financial planning tool that can make it easier for students to develop financial plans by allowing them to record budgets, income, expenses, and management in an easy way. This is one of the findings of the research conducted.

Keywords: Application, Notes, Finance, Student, Mobile

INTRODUCTION

Financial planning is essential for financial management, so it is very important for everyone to do it. To avoid losses, we must plan financial management in advance. Effective financial management is necessary for daily life. As economics students, we should also be able to manage our finances as well as possible. Students must know how to take care of their personal finances, according to Wulandari and Hakim (2015), which means they must have financial intelligence so that the knowledge we gain as students is not in vain, we must learn to manage personal finances. To achieve the goal of everyone's financial prosperity, it is very important in financial management to have knowledge about finance, or financial literacy.

Mobility such as cell phones or tablets, which in addition to functioning as a tool for communication, also have features and applications that support personal activities, can help student activities become more productive. Android, which is the most popular mobile operating system today, is open-source, making application development easier. It is the aim of this research to develop a financial recording application that allows students to track their financial situation easily through their mobile phones.

Financial literacy is the skills and knowledge a person has about their attitudes and behaviors when making decisions related to managing their finances. We can manage our personal finances well if we have good financial knowledge. According to Rasyid (2012), financial literacy is very important to avoid financial problems. No one wants to experience a lack of money, so we must be good at managing our money to avoid financial problems. Manurung (2009) states that financial literacy is a person's knowledge and ability to manage their finances so that they can make wise financial decisions by using high spiritual intelligence, understanding their spiritual attitudes in daily life, and using their spiritual intelligence to make wise financial decisions. Financial management requires high financial knowledge, high spiritual intelligence, and a family that is financially educated from childhood.

Spiritual intelligence must be present in everyone. It shows this tendency as she does not make the scale of her economic activities a priority. This is evident by his unprogrammed consumption patterns and not considering additional needs beyond consumption. Sometimes they would rather spend more money on their basic needs than fulfill their desire for an item. In addition, the many facilities that support the friendship environment affect students' financial and consumption habits. Shyness and competition in friendships sometimes also lead to

unreasonable consumption patterns, which will eventually impact on one's own finances. It is alleged that if children are given financial responsibilities by their parents, they may not learn how to manage their own finances.

Since there are many situations where people cannot manage their finances well, especially university students, resulting in expenses not balancing with income, university students need a mobile-based financial record application. Since paper can be damaged or lost, a computer or PC is better for keeping money than paper. As a result, students should only use their computers to keep records about financial transactions. What are the features contained in the moneysv application? How does the moneysv application work? Research Objectives Knowing the features contained in the moneysv application and Knowing how the moneysv application works

LITERATURE REVIEW

Application

Application comes from the term application, which can be used to refer to use, use, or application. Ready-to-use software that can be utilized by the target audience and created with other users or applications in mind. According to Jogiyanto (1999: 12), application is the application of instructions (instructions) or statements (statements) in a computer so that the computer can process input and produce output.

Finance

Finance is a field that discusses how to manage money. Business, personal finance, and public finance are generally topics that fall under this field. In other words, finance is concerned with how money is used and saved. "Money" comes from the word "money", which means a medium of exchange or a legal standard of measurement of value issued by the government of a country in a certain form and image, as well as the property or wealth of that country (KBBI, 2008). For businesses to operate properly, their financial state must be considered.

Financial Report

Financial statements are a collection of information about a company's financial performance during an accounting period that can be used to show its performance. Financial statements are the end result of a series of processes of recording and summarizing data relating to a business. They can be used as a tool to convey information about financial activity or about a business to interested parties.

Financial Management

Financial management is not only organizing how to obtain funds and their capital structure, but also learning how to use funds properly. The purpose of financial

management is to calculate the overall financial condition of the company to find out how much profit is generated. Financial functions, such as:

1. How to obtain funds,
2. How to manage funds,
3. How are funds allocated?

This is the essence of financial management: the duties and responsibilities of financial managers. They have to do it well. Here, financial management has two tasks: planning funds and obtaining funds. Based on Herispon (2018)

Android

Android is a new generation operating system platform based on Linux that has applications, operating systems, and middleware. Due to its open source nature, users can create their own programs. These components make up most of the Android architecture:

- 1) Apps and Widgets: the layer where users only interact with apps.
- 2) Application Layer: Here, developers can create applications for use on the Android operating system. This layer consists of views, content providers, resource managers, notification managers, and activity managers. Library: the layer where android features reside on top of the kernel, such as Libc and SSL
- 3) Android Work Time: the layer that allows Android applications to run, which includes a Linux implementation divided into two parts: Core Libraries and Dalvik virtual machine.
- 4) Linux Kernel: The system file layer that allows the management of processes, memory, resources, drivers, and the rest of the Android operating system. Android's core operating system can be accessed through various GNU licenses, one of which is the GPLv2 (General Public License version 2), which is a "copyleft" license. Android also has an Apache Software license, which allows it to be redistributed [3].

E-Wallet

A wallet is a small bag commonly used to store money, usually made of cloth or leather, and usually large enough to fit into a purse. They are much needed by everyone, mainly because they make it easy to store money and other personal items. Everyone always carries a wallet because of its importance[4]. Therefore, an electronic wallet, also called an e-wallet, is an easy-to-use tool for storing electronic money. Once the software and information are installed, users can start entering data when making statements or payments.

Notepad++

The text editing program called Notepad++ is mostly compatible with Windows-based machines. Notepad++ is



software that many programmers use to help with their work.

Android SDK

Google created the Android SDK, a software development toolkit, for the Android operating system. The Software Development Kit, or SDK for short, is the tools used by programmers to create Google Android-based applications. Debuggers, libraries, emulators, phones, related documentation, code samples, and tutorials for the Android OS are all included in the extensive collection of development tools that make up the Android SDK.

SQLite Data Base

Text files on the device are where data is stored in the open-source SQL database SQLite. The SQLite database implementation is already incorporated into Android. All aspects of relational databases are supported by SQLite to access this database. Similar to SQL, SQLite is essentially a Relational Database Management System (RDBMS). It is a standalone, serverless, open-source library with a transactional SQL database engine that has zero settings. Zero configuration in this context indicates that, unlike other database management systems, no device setup is required. In terms of configuration, database management, and all other requirements, SQLite is lightweight.

A. PREVIOUS RESEARCH

The research title chosen by the author can be used as a reference or reference based on other research related to the subject.

Table of Previous Research

No	Name of researcher and year of research	Research title	Research results
1.	(I Gusti Ngurah Anom Cahyadi Putra, 2016)	Designing Mobile-Based Student Applications.	The results showed that students can record their income, expenses, and budget through the "My Finance" application. This application is made with Eclipse and uses the Java programming language and

			SQLite database. There are no periodic records, graphs, the appearance of the application is too ordinary, and the methods used are not clear.
2.	(Yossyas Wahyu and Erues Cahyo Nugroho, 2016)	Android-based Household Finance Application.	According to the results of the study, there is an application called "Kalkutang" which can help keep an eye on household income and expenses. Android Studio is used to build the application system, MySQL database, waterfall method, and UML modeling. The application was created with Corel Draw X6. One of the advantages of this application is the ability to store data online, but unfortunately, there are drawbacks, one of which is the unattractive interface.
3.	(Wahyu Susilo, 2014)	Application for Android-based Family Financial Management.	This study uses the SDLC (System Development Life Cycle) methodology, which is complemented by the waterfall model and UML method. Eclipse as a code editor, SQLite as a database, and JAVA were used.



			This application is aimed at families who have small businesses. Some of the features of this research application are compounding, budgets, reports, and expenses. One of the advantages of this research is that users can see their financial condition separately between family money and their business money.
4.	(Andi Susanto, Agustinus and Alexander Setiawan, 2016)	Android-based Personal Finance Management Application.	The results showed that this application makes daily tasks easier. By viewing income and expenses on a regular basis, users can easily find out whether the budget that has been set is appropriate or not. Although it has many features, this application is only for personal users because it is built using Android Studio and JAVA programming language. If the internet connection is unstable, the features will not run properly.
5.	(Yuli Siyamto, 2018)	Designing Android-Based Finance and Investment Applications in Batam.	This research shows that there are applications that can help people invest and manage their money. Asset

			data, alarms, spending plans, and investment plans can be found in this application. Waterfall method is used in this research. The sqlite database, JAVA programming language, and Android Studio are used to build this application.
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RESEARCH METHODS

To conduct research, research methods must be carried out. The author uses various methods to obtain valid data and in accordance with the objectives, such as:

a) Data Collection Methods

Several data collection methods have been used by the author, including observation, interview, and library methods, to obtain relevant data for the case discussed in the research.

b) System Development Method

- The purpose of system analysis is to collect and analyze current data to meet the needs of the system to be built.
- System Design: Data flow diagram, database and file design, data design, and interface design are created through this design.
- Database design: The database design determines the data and tables to be stored or Building a Database Finding out the elements of tables and data in the database that will be used as a location for storing data later is done through database design. When creating a database that will be used as a data storage system, the database design is used to determine the elements of the tables and data in the database.
- Data processing: Data is processed using the Financial Accounting Standards Method, which is built using the SDLC waterfall model.
- At this stage, the ready system will be implemented. The planning department must provide an explanation of the use of the program because the program criteria must be easy to use and easy to understand.

c) Secondary Data Collection Method

The authors use the data they obtain from written reports, records, and books relating to financial management applications that are in accordance with the established system as their theoretical basis for writing the report. This data is obtained directly or through intermediaries.

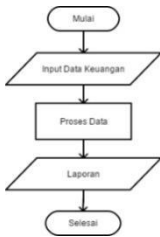
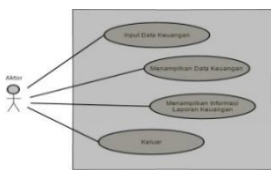
d) Needs Analysis

Conducted to determine the specifications of the needs for the system by defining the needs needed or requirements related to the system to be developed. This includes assessing the needs of the new system by conducting software and hardware analysis.

e) Process Design

The image segmentation procedure will be used in this study, and the following activities must be completed to create one or more representations of the Monevsv Financial Management program, namely as follows:

System design using

1.	Flowchart	 <p>Grafis 2: Flowchart</p>
2.	Case Study	 <p>Gbr 3. Kasus Penggunaan</p>

3. Gambar Diagram Aktif

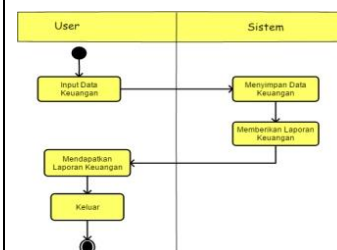


Diagram aktivitas (Gbr 4)

f) Code

The author uses Java as a programming language and Android SDK and Notepad++ to create Monevsv Financial Management application software.

g) Testing

The Black Box Test method is used to check the system: "The Black Box Test method is a type of test that treats software whose internal performance is unknown, so that testers view software as a "black box" that is not important to see the contents, but it is sufficient to recognize the testing process on the outside."

RESULTS AND DISCUSSION

The design of this financial application, which includes the implementation or instructions for running the program, provides information about the program to be run and used in the company's activities, so that users understand the functions of each application to be used. Therefore, the financial records application will have the following features:

1. Notes

You can record daily expenses and income by category in this section. You can also add photos and screenshots of receipts or transactions, as well as a customized spending and expense plan. You can also create categories of needs according to user preferences and create reports of financial activity for a specific time.

2. Financial activity graph

This application will also provide financial reports consisting of daily, monthly, and even annual reports in the form of graphs.

3. Ideal Spending

There is a feature that will provide news about our ideal expenses based on the monthly money we have. The use of this feature is by entering our nominal money in the enter budget feature and it will automatically be divided

into how many percent we ideally use the money for primary, secondary and tertiary needs.

4. Fund allocation feature

To allocate funds for income or payday, use expert formulas such as 50-30-10 or 40-20-10-10. These formulas can be used for any amount of income. The two most commonly used formulas are 50-30-10 or 40-20-10-10. The 40-20-10-10 formula divides 50% of the salary for daily needs, 30% for entertainment and lifestyle, and 20% for investment. Meanwhile, the 40-20-10-10 formula divides 50% of the salary for monthly living needs, 20% for lifestyle, 10% for savings, and 10% for charity and social.

5. Widget Feature.

Widgets are usually icons that serve as "shortcuts" for certain app features or functions. They also have features that allow you to enter transaction data without opening the app and will serve as notifications or reminders.

6. Financial check-up

If users record their finances in Moneysv, they can automatically see their financial health condition. The results of the calculation of these categories will be shown as a percentage of the overall monthly expenditure, and it is very easy to find which expenditure categories are increasing or bloated.

7. Live chat

Users can contact an independent CFP® (Certified Financial Planner) certified financial planner to discuss their financial issues.

8. Connect to bank account.

This feature of the app serves to connect us to our bank account. As a result, users can also record transactions with ATMs or debit cards in this app. With this moneysv feature, you can export data in different file types and support multiple currencies. It can also be associated with your bank account balance. With this app, sharing accounts with others becomes easier and safer.

9. Reports

You can also view all your expenses and income for the month in the reports menu. It displays the highest spending category, the difference between income and expenses, and all the financial activities done.

10. Stelan

There are features that can set or change income or expense categories, pin and password, and export data to text/XLS/PDF format in this section. You can also study the app and set the display color to make it more attractive. There are some additional settings such as locking the app so that no one else can see it, backing up and importing income and expense data.

Users can better manage their financial data with this moneysv financial management app, which has a financial recording and processing system. This means it can help them keep track of all their income and expenses. They don't need to record their money on notepad or paper media anymore.

By opening the application, the author can record and process his finances. Once you enter the system application, you will see the main menu. Before they can start the expense and income activities, users must fill in the category master with the types of expenses and income; they can also enter the categories of what users usually do and receive. After that, they can enter the expense and income data into the main menu.

This application is expected to help people record, calculate, and manage their money on Android-based mobile devices.

CONCLUSION AND SUGGESTION

1. This application is expected to help people record, calculate, and manage income and expenses on Android-based mobile devices. By using Notepad++ and Android SDK, you can create a financial recording and processing system for the Android-based moneysv financial management application that uses SQLite database.
2. Moneysv financial management application, which is based on Android, allows easier and more accurate organization and monitoring of income and expenses.
3. This application runs offline, meaning that users do not need to be connected to the internet to run it.
4. You can record income, expenses, and management with this simple moneysv financial management app.

After the discussion and conclusion about the Financial Recording and Processing System in the Android-Based Moneysv Financial Management Application that has been described, we are of the opinion that other applications such as:

1. It is hoped that the developer will improve the appearance of this Mneysv Financial Management application.
2. To expand its use, mobile applications can be made to run on smartphone operating systems other than Android.
3. Because the interface (display) of the system built looks simple, there may be additional features that will make it easier for users.

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