KOLEJ UNIVERSITI POLY-TECH MARA KUALA LUMPUR

Zakat Calculator App

By

AHMAD NAUFAL BIN TUN THAMANIAN

AM1901005157

A project proposal

Submitted to

Ms SHUHADAH OTHMAN

Faculty of Computing & Multimedia Kolej Universiti Poly-Tech MARA

1120

Contents

1. Introduction

The Zakat Calculator App is a mobile application for users to calculate their zakat. According to the Wikipedia and Investopedia article, zakat is an Islamic finance term referring to the form of alms-giving treated as a religious tax and one of the five pillars of Islam, it is a religious obligation in Islam for all Muslims who meet the necessary criteria of wealth to donate a certain portion of wealth each year to charitable causes. Muslims believe that giving away money to the poor is said to purify yearly earnings that are over and above what is required to provide the essential needs of a person or family. It is mandatory when two conditions are simultaneously satisfied which are Nisab and the Due Date. Zakat is based on income and the value of possessions. The common minimum amount for those who qualify is 2.5% or 1/40 of a Muslim's total savings and wealth. It is also often paid out at the end of the year once calculations on any leftover wealth are made. Recipients are the poor and needy, struggling Muslim converts, slaves, people in debt, soldiers fighting to protect the Muslim community and those stranded during their travels. The collectors of zakat are also compensated for the work they do.

In this day and age, many Muslims are unaware that they need to pay zakat, some don't even know how to calculate zakat. Furthermore, many people who calculate their zakat do not record the zakat payments that they have made along the year and previous year zakat payment are not recorded. It's hard for users to trace back. Also, existing zakat calculators are limited to calculating zakat only, there are no additional features that manage the zakat payment data.

The objective of this project is to help automatically calculate zakat, records data on zakat calculations, and manage them by converting them into statistics. All of these goals are to solve the issues stated above.

For this application, there will only be a single type user using it, specifically Muslims who want to work out their portion of zakat. The app mainly asks for the users to enter the year to obtain the nisab/minimum requirement of that year, then ask for the total income the user has as well as any contributions made. Then it will compare the total amount of income minus the contributions and expenses with the nisab/minimum requirement to determine if the user meets the criteria of paying zakat. If the user meets the criteria, they have the option of paying the zakat monthly or yearly towards online zakat organisations. However, keep in mind that the payment system is not implemented in this application but will link the user to a third party zakat organisation for payment. These can then be recorded and added to a database where users can view it. The database is in the zakat records section where the database can be converted to a chart for users to compare and set goals for giving zakat in the future.

2. Problem Statement

1. **Muslims do not know how to calculate zakat.**
   Many Muslims do not know how to calculate their zakat and may calculate it manually which takes energy and time to compile all the wealth to calculate.

2. **Zakat payment details are not recorded properly.**
   Many people who calculate their zakat do not record the zakat payments that they have made along the year and previous year zakat payment are not recorded. It's hard for users to trace back.

3. **Lack of / no zakat apps that assist the user in managing zakat payment information.**
   Existing zakat calculators are limited to calculating zakat only, there are no additional features that manage the zakat payment data.

3. Problem Objective

1. **To develop an application that can automatically calculate zakat.**
   This is to provide a tool that can digitally calculate the zakat. People that want to calculate their zakat can easily enter their wealth and financial information to substitute them into a formula that calculates zakat automatically.

2. **To develop an application that records data on zakat calculations.**
   All the zakat that has been calculated will then be recorded and added to a database so users cannot forget their zakat payment information.

3. **To develop an application that can manage the zakat payment information.**
   Users that have a zakat history linked to their zakat calculator can project the amount of zakat they want to pay in the future as well as convert them into a statistic such as a graph. Keeping track of the amount of zakat paid every year acts as an encouragement for the users to set goals on giving more zakat.

4. Scope

4.1 User Scope

1. **The user can calculate their zakat by entering the necessary wealth and financial information.**

   To calculate zakat, app mainly asks for the users to enter the year to obtain the nisab/minimum requirement of that year, then ask for the total income the user has as well as any contributions made. Then it will compare the total amount of income minus the contributions and expenses with the nisab/minimum requirement to determine if the user meets the criteria of paying zakat.

2. **The user can pay the zakat to an online zakat organisation.**

   If the user meets the criteria, they have the option of paying the zakat monthly or yearly towards online zakat organisations. They can enter their bank information to pay for the amount due. This will be recorded and added to the database.

3. **The user can view their zakat records and statistics.**

   Recorded zakat calculations and payment exists for the user to view their zakat history, the results recorded can be viewed in a table or a chart. That way the user can compare their zakat between different years, this also encourages the user to project about giving more zakat in the future.

4.2 Application Scope

1. This project will not require many resources since Zakat Calculator Application has already provided their requirements for a zakat calculator and as soon as development starts, I may proceed to design than the programming phase. Past experiences will also help in developing this project as I am quite used to the programming languages used. Additionally, I have developed programs that involve calculation before this final year project however calculations regarding zakat will be different whether it will be difficult or not.

2. Much of the application will be programmed and designed using LiveCode programming language.

3. Each zakat calculated will be stored in an SQLite database.

4.3 Project Scope

- **Proposal**

  To define the project idea and introduction of the Zakat calculator, explain the objectives of the project, provide the scope of the project, list the requirements and display a timeline and duration of the project.

- **Product**

  Develop a mobile application named Zakat Calculator Apps that can digitally calculate zakat, collect data on the zakat payment information, manage the zakat information and convert them into statistics as well as provide information about zakat.

- **Final Report**

  To produce a complete report that discussions on the project idea, how it works, the aim and objectives, reasons why the app should exist, how it differs from other similar apps, the methodology and techniques used, testing and results obtained during experiments, the summary, the experience, and the conclusion of the project.

- **Presentation**

  A demonstration and presentation of the final product, to display the look and interface design, the functions and purposes.

5. Target User

There will only be one type of user, the user will be able to:

1. Calculate their zakat by entering the necessary wealth and financial information.
2. View their zakat records and statistics.
3. Read information about zakat

6. Hardware Requirements

- **Processor:** Minimum of 1GHz
- **Memory (RAM):** Minimum of 2GB RAM
- **Monitor Resolution:** 1024 X 768
- **Hard Drive:** Minimum of 20GB
- **Internet Connection:** 4Mbps or higher
- **Computer:** DELL Lenovo Inspiron 13 5000
    - **Processor:** Celeron Dual Core
    - **Memory (RAM):** 8GB RAM
    - **Display Resolution:** 1920 x 1080 Pixels
    - **Hard Disk:** 128GB

7. Software Requirements

- **Windows 10 recommended. Windows 7 minimum**
  An Operating System that supports a computer's basic functions, such as scheduling tasks and controlling peripherals.

- **LiveCode**
  A platform used for designing mobile applications. It is a tool to code and designs the interface of apps.

- **SQLite**
  A database tool that is used for a wide range of purposes including data storing, e-commerce and logging applications.

8. Methodology

Since this project is only an application to calculate zakat and check zakat progress, there are not many resources required for development and building such an app must be planned in a linear approach; the urgency of adjustment is not applied for this app. So, the six-step waterfall model is chosen as the methodology to be used.

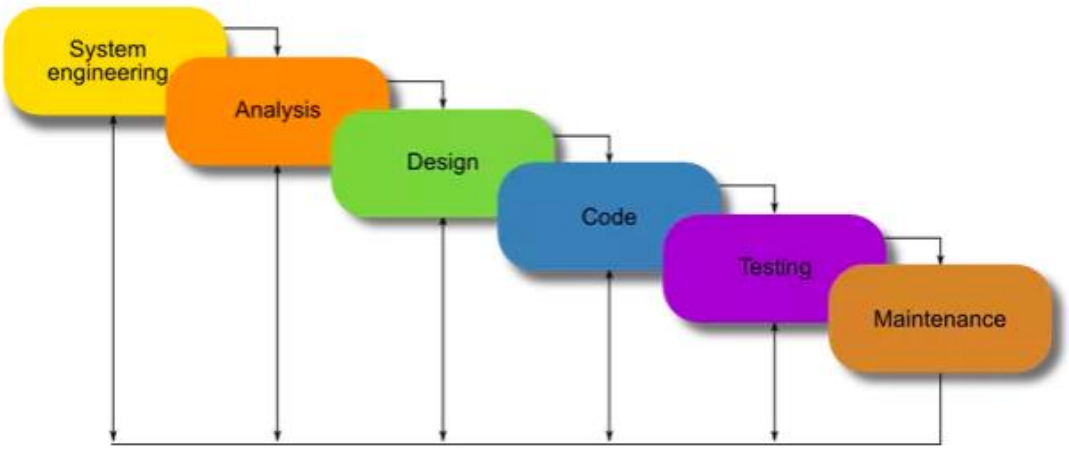

Figure 1: Waterfall Methodology

The waterfall model will be implemented as the logical progression steps to be taken throughout the System Development Life Cycle (SDLC). Although the agile methodologies may have reduced the popularity of the waterfall model, due to the sequential process in the waterfall methodology that fits the requirement of Zakat Calculator Application I believe this is the perfect methodology.

9. Project Planning

9.1 System Engineering

The first phase is gathering the requirement phase. All the requirement for the application is gathered from the users of this application and documented in a requirement specification document. This includes gathering all the software and hardware requirement too.

9.2 Analysis

This phase involves analysing and understanding the project to generate and improve the zakat functions of the application.

9.3 Design

This is the phase where designing the interfaces takes place. A blueprint of the interface design is drawn and being implemented. Changes will be made if the design rating is unsatisfactory.

9.4 Code

During this phase, the code for this project is being written. LiveCode will be used as the platform for coding as well as the SQLite and Livecode programming language. The code that is written is based on the project requirement and design.

9.5 Testing

Once all the coding is done, the completed application will be released and used by the users to test it. The users will review the application to make sure it meets the requirement laid out at the beginning of the project. The users will test the application and give their feedback for better polishing of the app.

9.6 Maintenance

The users will use the application while the developers will keep on fixing bugs and other errors that occur on the application until the users are satisfied.

10. Conclusion

To conclude this proposal, it has been proven that this application is needed to help Muslims to perform the obligation of giving zakat. Which is why Zakat Calculator Application will be a simple application developed to simplify the process of zakat. The user can calculate the zakat and pay. In the zakat records, the user may view the statistics in a chart, view all zakat calculations and payments, keep track of zakat accumulations. Zakat Calculator Application will undoubtedly be helpful for Muslims and encourage them to give more zakat.

11. Gantt Chart

Project Schedule	W 1	W 2	W 3	W 4	W 5	W 6	W 7	W 8	W 9	W1 0	W1 1	W1 2	W1 3
Information gathering													
Requirements & Analysis													
Methodology													
Design													
Coding & Programming													
Testing													
Live													

12. References

1. Islamicity.org. 2020. [online] Available at: <https://www.islamicity.org/zakat-calculator/?AspxAutoDetectCookieSupport=1> [Accessed 17 December 2020].

2. Investopedia. 2020. Zakat Definition. [online] Available at: <https://www.investopedia.com/terms/z/zakat.asp> [Accessed 17 December 2020].

3. En.wikipedia.org. 2020. Calculation Of Zakāt. [online] Available at: <https://en.wikipedia.org/wiki/Calculation_of_Zak%C4%81t#:~:text=Zakat%20is%20based%20on%20income,minimum%20amount%20known%20as%20nisab.&text=However%2C%20the%20amount%20of%20zakat,%25%20(1%2F40).> [Accessed 17 December 2020].

4. Guru99.com. 2020. Waterfall Vs. Agile: Must Know Differences. [online] Available at: <https://www.guru99.com/waterfall-vsagile.html#:~:text=Waterfall%20is%20a%20Liner%20Sequential,in%20the%20software%20development%20process.&text=Agile%20allows%20changes%20in%20project,once%20the%20project%20development%20starts.> [Accessed 17 December 2020].
5. Ordering System. 2020. Objectives. [online] Available at: <https://ordering4103.weebly.com/objectives.html> [Accessed 17 September 2020].