**Zakat Calculator**

* Developer: Zulqarnain Saeed
* Course: Programming Fundamentals
* Language: C++
* Type: Console-based Application

**Project Objective**

This project aims to help Muslims calculate the amount of Zakat (obligatory charitable donation) they need to pay based on their assets and liabilities. Zakat is one of the Five Pillars of Islam, and it is compulsory for those whose wealth exceeds a certain threshold (Nisab).

The calculator uses various types of assets and liabilities to determine a person’s net worth and then checks if it exceeds the Nisab threshold, calculated based on gold value. If it does, it calculates 2.5% (the standard Zakat rate) of the net assets.

**How the Program Works**

1. **Introduction**

The program starts by displaying a heading and introduction explaining Nisab and approximate gold and silver values.

It informs the user that all calculations will be in PKR (Pakistani Rupees).

1. **Input Section**

The program then asks the user to input different financial details.

1. **Assets**

* Cash in hand and in bank accounts: Any liquid cash available.
* Cash set aside for future purposes: E.g., savings for Hajj or other future goals.
* Cash given out as loans: Money given to others as a loan that is expected to be repaid.
* Investments and shares: Includes shares, certificates, pension funds funded by personal money.
* Gold value: Value of gold owned.
* Silver value: Value of silver owned.
* Stock value: Goods and trade stock value (for business owners).

1. **Liabilities**

Borrowed money or credit purchases: Money owed to others or goods bought on credit.

Employee wages due: Salaries payable to employees.

Immediate bills and dues: Taxes, rent, and utilities that are due immediately.

1. **Gold Price**

The user is asked to input the current gold price per gram in their city.

1. **Zakat Calculation**

If the user’s net wealth is greater than or equal to the Nisab value, the program calculates 2.5% of the net wealth as Zakat. The program displays:

* Total net worth.
* Zakat amount payable.
* Remaining wealth after paying Zakat.
* If the net wealth is below the Nisab, it informs the user that Zakat is not obligatory.

1. **Key Features**

Considers different types of assets and liabilities to provide an accurate net worth.

Uses real-time gold price to determine Nisab, making it adaptable for different users and locations.

Clearly informs the user whether Zakat is applicable.

Provides detailed output to show before and after Zakat deduction.

1. **Conclusion**

This project is a practical console-based application that guides users in fulfilling an important religious obligation accurately. It applies fundamental programming concepts such as:

User input and output.

Modular design using functions.

Arithmetic operations and condition checks.

Proper formatted display of financial summaries.

Possible Improvements

Add file handling to save user data and generate reports.

Develop a graphical user interface (GUI) for better usability.

Add multi-currency and multi-language support.

Include input validation to handle incorrect or missing data.

1. **Summary**

The Zakat Calculator provides a user-friendly and socially beneficial tool for Muslim users. It improves understanding of wealth assessment and ensures that Zakat calculations are done correctly and transparently, while strengthening programming skills in C++.