# Riphah School of Computing and Innovation (RSCI), Lahore



## Project Proposal

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**Date:** 28/10/2024

## Aim of the Project

The Crypto Trading Portal aims to provide users with a straightforward and efficient way to engage in crypto currency trading while ensuring the security of their accounts and transactions. By utilizing Assembly language, the project will enhance the understanding of low-level programming concepts, memory management, and system architecture, while delivering a functional trading platform.

## Brief Description

The Crypto Trading Portal is a console-based application developed in Assembly language, designed to simulate a Binance-like environment for buying, selling, and displaying cryptocurrency. This program enables users to manage cryptocurrency transactions with a secure and user-friendly interface. Each user has a unique username and password for account protection and can make transactions based on their wallet balance, which reflects their available funds. The portal allows users to execute buy and sell orders for different cryptocurrencies, viewing their wallet’s updated balance in real-time after each transaction. The Crypto Trading Portal serves as a powerful tool for cryptocurrency trading in a simplified console-based format, providing hands-on experience with Assembly language, low-level programming, and system architecture.

## Functionality of Project

 **User Account Management**:

1. Users can create accounts with unique usernames and passwords.
2. Secure login and authentication processes to protect user information.

 **Wallet Package**:

1. Each user has a virtual wallet to store various cryptocurrencies.
2. Users can check their wallet balance, which updates in real-time after transactions.

 **Buying and Selling**:

1. Users can execute buy and sell orders for different cryptocurrencies.
2. Transactions are processed based on current market prices, with options for market or limit orders.

 **Display Features**:

1. The portal displays current cryptocurrency prices and trends.
2. Users can view transaction history, including details of past buys and sells.

 **Security Measures**:

1. Password hashing for secure account management.
2. Session management to log users out after inactivity.

 **User-Friendly Console Interface**:

1. Clear prompts and menus for navigating through features.
2. Error handling for invalid inputs and transaction failures.