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| Cryptocurrency Trading Application |
| ITMD 510 Phase 1 |
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Contents

[Description Of The Project 1](#_Toc509951556)

[Main Menu 1](#_Toc509951557)

[Class Descriptions 2](#_Toc509951558)

[UML 3](#_Toc509951559)

# Description Of The Project

This project simulates what a real world cryptocurrency trading exchange is like. It aims to provide the user a sense of how the trading virtual currency plays out without having to invest real money. This program can be accessed by 2 users:

* Trader/investor
* Administrator

The trader account will have the ability to buy and sell currencies. They will be able to see history of the currency, its prices and trends. They will be able to deposit funds in USD into the account and simulate withdrawing them out of the program back to a bank account.

The administrator account will be able to review the trading account’s history and alter past transactions. They will also be able to set restrictions such as the amount the trader can exchange and withdraw. They will also have the responsibility of approving deposit/withdraw bank accounts added by the trader.

# Main Menu

* Trader
  + Login
  + Deposit funds
  + Exchange currency
  + Withdraw funds
  + View history of supported currencies
  + Update profile
    - Name
    - Gender
    - Address
    - Email
    - Phone number
    - Bank account information
* Administrator
  + Login
  + View past transactions
  + See pending changes to user profile
  + Revert transactions

# Class Descriptions

* Exchange acts as a superclass to the subclass Account
* Account acts as the superclass to AdminAccount and TraderAccount
* TraderAccount has the privileges to make a transaction
* The Transaction class stores the transaction via the Wallet Class
* The TraderAccount implements the TraderOperations interface
* The AdminAccount implements the AdminOperations interface
* The Exchange Class gets the currency information from the Currency Class

# UML

