

COSC 412: Individual Project - Use Cases

Title	Exchanging Cryptocurrency
Description	Purchasing and cryptocurrency
Primary Actor	Retail Buyers
Triggers	User buys a cryptocurrency
Main Course	<ol style="list-style-type: none"> 1. Users log into account 2. Users view cryptocurrencies that the cryptocurrency exchange has to offer. 3. Users select which cryptocurrency to buy (see AC1, and AC2) 4. User review and submit action 5. Systems provides order details to user 6. System updates user's account cryptocurrency/money
Alternative Course(s)	<p>AC1: User does not have money in account</p> <ol style="list-style-type: none"> 1. System will deny the user to buy any cryptocurrency 2. User must have linked bank account to transfer money 3. User enters the amount of money being transferred from bank a <p>AC2: User is buying cryptocurrency (Before user can purchase any cryptocurrency, they must have completed AC1 or have money stored into their account)</p> <ol style="list-style-type: none"> 1. User decides what type of order that they want to proceed <ol style="list-style-type: none"> 1.1. Market Order <ol style="list-style-type: none"> 1.1.1. User choose how to buy the amount cryptocurrency: <ol style="list-style-type: none"> 1.1.1.1. USD (US Dollar) <ol style="list-style-type: none"> 1.1.1.1.1. User enters the amount of money to buy the cryptocurrency <ol style="list-style-type: none"> 1.1.1.1.1.1. Ex. 5000 USD = 2.36599 ETH 1.1.1.2. Cryptocurrency (Ex. ETH) <ol style="list-style-type: none"> 1.1.1.2.1. User enters the amount of cryptocurrency that is being bought <ol style="list-style-type: none"> 1.1.1.2.1.1. Ex. 2 ETH = 4,236.46 USD 1.1.2. User review and submits the market buy order 1.1.3. System provides details of the order 1.2. Limit Order <ol style="list-style-type: none"> 1.2.1. User enters the price that they want to buy the cryptocurrency 1.2.2. User choose how to buy the amount cryptocurrency: <ol style="list-style-type: none"> 1.2.2.1. USD (US Dollar) <ol style="list-style-type: none"> 1.2.2.1.1. User enters the amount of money to buy the cryptocurrency <ol style="list-style-type: none"> 1.2.2.1.1.1. Ex. 5000 USD = 2.36599 ETH

	<p>1.2.2.2. Cryptocurrency (Ex. ETH - Ethereum)</p> <p>1.2.2.2.1. User enters the amount of cryptocurrency that is being bought</p> <p>1.2.2.2.1.1. Ex. 2 ETH = 4,236.46 USD</p> <p>1.2.3. User review and submits the market buy order</p> <p>1.2.4. System will fulfill pending order when the price reaches to the entered amount that the user desired</p> <p>1.2.5. System provides details of the order if it's fulfilled or the order will be canceled due to expiration date</p> <p>1.2.5.1. The limit order will have a certain time for the order to be fulfilled (90 days)</p>
Exception(s)	User does not have sufficient funds to buy the amount of cryptocurrency from the exchange
Pre-condition(s)	User is viewing the available cryptocurrencies that the exchange has to offer User must have money transferred into their account or existing money to buy cryptocurrency
Post condition(s)	<p>The system will notify the user when the executed action is completed (buy or sell) and give the details of the action (estimated price, quantity, profit/amount spent)</p> <p>Buy: The cryptocurrency that the user bought will be stored into their account with the total quantity bought</p> <p>The system will update the users' account with the total amount money/cryptocurrency that they have in their account from past order</p>

Title	Exchanging Cryptocurrency (Selling)
Description	Selling cryptocurrency
Primary Actor	Retail Sellers
Triggers	User sells a cryptocurrency
Main Course	<ol style="list-style-type: none"> 1. Users log into account 2. Users view cryptocurrencies that the cryptocurrency exchange has to offer. 3. Users select which cryptocurrency to sell (See AC1) 4. User review and submit action 5. Systems provides order details to user 6. System updates user's account cryptocurrency/money

Alternative Course(s)	<p>AC1: User is selling cryptocurrency</p> <ol style="list-style-type: none"> 1. User decides which type of order that they want to proceed <ol style="list-style-type: none"> 1.1. Market Order <ol style="list-style-type: none"> 1.1.1. User choose how to sell the amount cryptocurrency: <ol style="list-style-type: none"> 1.1.1.1. USD (US Dollar) <ol style="list-style-type: none"> 1.1.1.1.1. User enters the amount of money to sell the cryptocurrency <ol style="list-style-type: none"> 1.1.1.1.1.1. Ex. 5000 USD = 2.36599 ETH 1.1.1.1.2. Cryptocurrency (Ex. ETH - Ethereum) <ol style="list-style-type: none"> 1.1.1.1.2.1. User enters the amount of cryptocurrency that is being bought <ol style="list-style-type: none"> 1.1.1.1.2.1.1. Ex. 1 ETH = 2,106.87 USD 1.1.2. User review and submits the market order 1.1.3. System provides details of the order 1.2. Limit Order <ol style="list-style-type: none"> 1.2.1. User enters the price that they want to sell the cryptocurrency 1.2.2. User chooses how to sell the amount cryptocurrency: <ol style="list-style-type: none"> 1.2.2.1. USD (US Dollar) <ol style="list-style-type: none"> 1.2.2.1.1. User enters the amount of money to sell the cryptocurrency <ol style="list-style-type: none"> 1.2.2.1.1.1. Ex. 5000 USD = 2.36599 ETH 1.2.2.1.2. Cryptocurrency (Ex. ETH - Ethereum) <ol style="list-style-type: none"> 1.2.2.1.2.1. User enters the amount of cryptocurrency that is being sold <ol style="list-style-type: none"> 1.2.2.1.2.1.1. Ex. 1 ETH = 2,106.87 USD 1.2.3. User review and submits the limit order 1.2.4. System will fulfill pending order when the price reaches to the entered amount that the user desired 1.2.5. System provides details of the order if it's fulfilled or the order will be canceled due to expiration date <ol style="list-style-type: none"> 1.2.5.1. The limit order will have a certain time for the order to be fulfilled (90 days)
Exception(s)	User does not have sufficient funds to buy the amount of cryptocurrency from the exchange
Pre-condition(s)	<p>User is viewing the available cryptocurrencies that the exchange has to offer</p> <p>User must have money transferred into their account or existing money to buy cryptocurrency</p>
Post condition(s)	The system will notify the user when the executed action is completed

	<p>(buy or sell) and give the details of the action (estimated price, quantity, profit/amount spent)</p> <p>The cryptocurrency that the user sold will update it's account, (if the user sold a portion of it or all of it) and in exchange it will receive the profit that they made from the sale in USD</p> <p>The system will update the users' account with the total amount money/cryptocurrency that they have in their account from past order</p>
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