

RESEARCH AND DELIVERABLES

Pakistan Blockchain Olympiad (PAK-BCOL)
Powered by RNS Solutions & IBCOL

The blockers

TASK: Order book

Research:

We watched couple of online videos and read online stuff to understand what is order book and how it works.

What is order book?

An order book is a list containing all outstanding buy or sell orders for a specific currency pair, organized by price level. An order book identifies the amount of the currency pair being bid or offered at a specific price, known as the *market depth*. An order to buy is called a 'bid' and an order to sell is called an 'ask'.

How it works?

Buyer's place a bid and seller wants to sell their bitcoins(example), if exchange matching engine pairs up bids(buyer) and asks(seller), resulting in a trade.

Limit Orders

A limit order is an order to buy or sell a stock at a specific price or better. A buy limit order can only be executed at the limit price or lower, and a sell limit order can only be executed at the limit price or higher. A limit order is not guaranteed to execute. A limit order can only be filled if the stock's market price reaches the limit price.

Market Order

A market order is a request by an investor – usually made through a broker or brokerage service – to buy or sell a security at the best available price in the current market. It is widely considered the fastest and most reliable way to enter or exit a trade and provides the most likely method of getting in or out of a trade quickly.

Order History:

It maintains the history of orders a user place or bid.

Order book Uses:

Order books are used by almost every exchange for various assets like stocks, bonds, currencies, and even cryptocurrencies.

Modules:

- 1- Ask Order Module
- 2- Limit Order Module
- 3- Market Order Module
- 4- Bid Order Module
- 5- Order History Module

Division:

| Deliverables | Modules Division |
|----------------------------------|---|
| 1- 25% project submission (15%) | Ask Order Module |
| 2- 50% project submission (25%) | Limit Order Module Market Order Module |
| 3- 75% project submission (20%) | Bid Order Module |
| 4- 100% project submission (30%) | Order History Module |

Tools & Technologies:

1. Node.js
2. React

References:

<https://www.kaiko.com/collections/order-books>

<https://www.sec.gov/fast-answers/answerslimithtm.html>

<https://www.investopedia.com/terms/m/marketorder.asp>