



IIT KHARAGPUR

INTER IIT TECH MEET 10.0

25-27TH MARCH 2022

MUDREX'S ALPHA TRADING QUEST

The rising acceptance of crypto has also resulted in a greater number of people participating in crypto trading. However, there's a white space - unlike traditional markets, there are fewer algorithms and much lesser expertise in crypto trading. Consequently, robust and automated trading systems are a huge opportunity in the crypto space.



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PROBLEM STATEMENT

DESCRIPTION

The goal of this competition is to create an automated trading bot, using the **Mudrex Visual Builder**, that trades profitably on a set of below-mentioned crypto assets and exchanges.

Assets: ETH-USDT / ADA-USDT / XRP-USDT

Exchange: Binance, Spot

All participating teams will be given access to Premium Mudrex Accounts on which they will be able to access the visual builder, create strategies and backtest their bots.

Every team can submit up to **seven** bots for testing. However, you can create as many as you want on the platform using the historical data available. The bots submitted for testing will be fed 10,000 hidden cases, and the results will be conveyed to the respective teams. The final submissions are exclusive of the seven testing attempts made. Testing and submission links will be shared in due course.

Participants are also required to make a short presentation to a panel of judges that will cover every step that they have taken to reach the current model, including background research, assumptions made, and edits done after testing attempts. Teams are also required to mention why their model is performing poorly (if it is) and suggest corrective measures. A discussion on the roadblocks faced and the future flow of technology in the crypto arena keeping the problem statement in mind will also be appreciated.

GUIDELINES

1. Participants are encouraged to rigorously go through each point in their strategy and be ready with sound logical backing for the same.
2. Presentation should not exceed 10 minutes.



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SUBMISSION

The bots that are built will need to have a minimum Mudrex Performance Score of 7.

After building and testing the strategies, each team will have to submit their final bots on 23rd March, for which a submission link will be shared later.

Teams are allowed to submit up to **three** different bots (one for each of the specified asset pairs). If a strategy is not for the asset pairs specified, it will not be evaluated.

The final presentation should only have 3 slides : Idea, Implementation, Results (excluding the title slide).

EVALUATION

Apart from general profitability on the above-mentioned assets, final submitted bots will be run on a collection of over 100,000 hidden test cases to check for overfitting.

Every bot will be evaluated on the following metric over all test cases:

$\text{'sqrt(mean_return) * mean_performance_score'}$.

'mean_return' is the mean of returns across all of the test cases.

'mean_performance_score' is similarly the mean of performance scores across all test cases.

The performance score for each test case is calculated as a linear combination of risk terms like Sharpe, max drawdown among others.



The best performing strategy from the three submitted will be considered for final evaluation.

The presentation will be judged on multiple fronts:

- 1.Explanation of how the current strategy has been obtained.
- 2.Explanation of the working of the bot (use of specific technical indicators).
- 3.Explanation of roadblocks, difficulties faced while constructing the bot.

Note -

Teams are allowed to test their bots with 10,000 hidden tests between 15th-22nd March. Each team can check their strategies up to 7 times. This will help the teams further improve their bots.

Bot evaluation will carry 150 points, and presentation will carry 100 points.

Team size for this event is maximum 6 participants.
Participation awards shall be awarded to all participants.



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