Mutual Funds Prediction

Project Title and Team Members:

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Team Members:

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Github link:

2.Goal and objectives:

Abstract:

We are seeing various new methods are evolving to find a better and efficient prediction and evaluation of mutual funds using the latest technologies. This work makes use of machine learning algorithms and some innovative calculation strategies to get more accurate results and predictions. According to the previous researchers, the Artificial Neural Network gives better results as compared to the other algorithms we had chosen for the Artificial Neural Network as our base model. Neural Network is a network that resembles a human brain tissue, which may infer a result based on the facts or experience that happened. Many applications have implemented neural networks. In this work, we use Feed-Forward Backpropagation Neural Network and Artificial Neural Network to predict the closing value of mutual funds and classify whether we are getting profit or loss. In this work, we also implemented the dataset on some other Artificial Intelligence algorithms and compared it with our main model, and then finalized our final model as an Artificial Neural Network. This work also focuses on some other parameters such as tomorrow returns. The result not only predicts the closing value or tomorrow returns but also explains the consistency and stability of the model by evaluating the percentage of accuracy as the proof.

Motivation:

tock Exchange and Mutual funds had shown tremendous impact on the market to earn a big amount of profits and also loss. There were too many ups and downs in this field where a lot of research and analysis is required to make profits and avoid loss. To make this work easy for humans, a lot of researchers are working with different types of techniques and strategies . Artificial Intelligence algorithms are well known for this type of predictions as it works more similar to the human brain and also works more efficiently with more complex problems. There were many solutions and implementations brought into existence to make profits. In the similar way we thought of developing  a model with some new calculation techniques with exciting machine learning algorithms for our academic work in our final year.

Significance:

Another significant advance in information preprocessing is to normalize the dataset. This cycle makes the mean of the multitude of info highlights equivalent to zero and furthermore changes their difference over to 1. This guarantees that there is no predisposition while preparing the model because of the various sizes of all info highlights. In the event that this isn't done the neural organization may get befuddled and give a higher load to those highlights which have a higher normal incentive than others.

A genuine information for the most part contains clamors, missing qualities, and perhaps in an unusable arrangement which can't be straightforwardly utilized for AI models. Information preprocessing is required assignments for cleaning the information and making it appropriate for an AI model which additionally expands the precision and productivity of an AI model.

Objective:

The main objective of this work is to find the closing price of that day by using the Machine Learning algorithms. We have explained the details about the mutual funds and Schemes of the Mutual funds.  Many of the people are investing their money into the mutual funds to get profits by using the fund Manager. This paper helps the investors not to lose their money in the mutual funds because we have developed a model where it gives more accuracy in predicting.

Another main Objective is to develop a model that gives better values for performance measures like RMSE , MAE , MAPE which will be better than the previous work. So,we developed a model that modifies its value after every epoch that yields better results.

Features:

Here we generated some new features from the taken dataset.New features we considered here are taking the difference between high and low (H-L) ,difference between open and close (O-C), Mean for 3days,Mean for 10days, Mean for 30 days and Standard Deviation.

We had calculated the difference between high and low because if the difference between high and low is max or min we can judge that either the person will be getting more profit or more loss, similarly the opposite way.

Calculating the rise in price for the data.We at that point characterize the yield as an incentive as value rises, which is a parallel variable putting away 1 when the end cost of tomorrow is more prominent than the end cost of today.

References:

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