**Back testing pair trading strategy.**

(All code should be written in python )

1. Back testing a Mean Reversion Pairs Strategy Between all included stocks in future segment in Indian market.

* Import data from data sources such as nse or quandl.

1. Check stocks pair which pass in Adf test and get stocks pairs various other attributes (E.g. Pairs-(Mean, standard deviation,residuals,intercept and beta)

* Residual, intercept and beta values will be from linear regression method of pair trading (for that import some libraries to perform statistical operation)

1. Perform operation and code to make an excel sheet included those parameters.

* Sample output excel file is attached with mail.

1. Back testing according to their z-score according to ratio of stocks pair methods and linear regression methods to predict stocks price.

* Back testing should be done on both z-score

( above and below +2 and -2 and +2.5 and -2.5)

* Summary report of back testing Must include ( CAR/MDD,Profitable trade percentage, Loss percentage, and various useful attributes in back testing).