

Mini project – simple algorithmic trader:

To run – run the Python script miniproj.py with the following inputs: buy/sell, at what price, quantity, interface.

The python program collates this data into a packet and sends 2 integer values to the switch, the first being a 1/0 depending on whether the command is buy/sell. And the second is the price.

Once at the switch, the P4 program compares the price to the share's current price to see if the transaction is valid. The logic is as follows:

If the order is to buy, for the transaction to be valid it must be at a price \geq to the current price

If the order is to sell, for the transaction to be valid it must be at a price $<$ to the current price.

If the transaction is successful the switch, like in the calculator program, sends back a packet which contains the value 1 (or 0 if unsuccessful).

This value is read by the python program and then outputs text on whether the transaction was successful.