



# BOA Code to Connect: Group 16

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# Validation



```
order_instrument_dict = {}
for new_order in test_orders_list:
    # Policy check
    if new_order.instrument not in test_instruments_dict:
        invalid_orders["Order Id"].append(new_order.order_id)
        invalid_orders["Rejection Reason"].append("REJECTED - INSTRUMENT NOT FOUND")
        continue
    # Currency check
    current_client = test_client_dict[new_order.client]
    client_currencies = current_client.currencies.split(",")
    if test_instruments_dict[new_order.instrument].currency not in client_currencies:
        invalid_orders["Order Id"].append(new_order.order_id)
        invalid_orders["Rejection Reason"].append("REJECTED - MISMATCH CURRENCY")
        continue

    if new_order.instrument not in order_instrument_dict:
        order_instrument_dict[new_order.instrument] = {"current_price":0,"bid":[],"ask":[]}
        # Skip market order since no previous prices
        if new_order.price == "Market":
            order_instrument_dict[new_order.instrument]["bid" if new_order.side == "Buy" else "ask"].append(new_order)
            continue
```

- Dictionaries created for invalid orders
- Entries added after each layer of checking



# Open Auction

- a heap data structure
- prioritise market orders
- iterate through prices



# Continuous Trading

- priority queues

- dictionaries for orders,instruments and clients