operations by websocket

start websocket

login

```
{"id": 1, "method": "call", "params": [1, "login", ["",""]]}

{"id":1,"jsonrpc":"2.0","result":true}
```

register

```
{"id": 2, "method": "call", "params": [1, "history", []]}

{"id":2,"jsonrpc":"2.0","result":2}
```

`register the operation for api id`

1. get_account_history

`A list of operations performed by account, ordered from most recent to oldest`

- Request:

  ```
  {"id": 3, "method": "call", "params": [2, "get_account_history", ["1.2.25", "1.11.0",
   3, "1.11.0"]]}
  ```

- Parameters:

  ```
  account: The account whose history should be queried
  stop: ID of the earliest operation to retrieve
  limit: Maximum number of operations to retrieve (must not exceed 100)
  start: ID of the most recent operation to retrieve
  ```

`The operation code is 1.11.X; if start = stop = 1.11.0, return these operations recently`

- Response:

  ```
  {
      "id": 3,
      "jsonrpc": "2.0",
      "result": [{
          "id": "1.11.23481",
          "op": [0, {
              "fee": {
  ```

```json
                "amount": 2000,
                "asset_id": "1.3.0"
            },
            "from": "1.2.25",
            "to": "1.2.19",
            "amount": {
                "amount": 1000000,
                "asset_id": "1.3.0"
            },
            "extensions": []
        }],
        "result": [0, {}],
        "block_num": 859366,
        "trx_in_block": 0,
        "op_in_trx": 0,
        "virtual_op": 52221
    }, {
        "id": "1.11.23480",
        "op": [0, {
            "fee": {
                "amount": 2000,
                "asset_id": "1.3.0"
            },
            "from": "1.2.25",
            "to": "1.2.26",
            "amount": {
                "amount": 1000000,
                "asset_id": "1.3.0"
            },
            "extensions": []
        }],
        "result": [0, {}],
        "block_num": 859345,
        "trx_in_block": 0,
        "op_in_trx": 0,
        "virtual_op": 52219
    }, {
        "id": "1.11.23479",
        "op": [6, {
            "fee": {
                "amount": 2000,
                "asset_id": "1.3.0"
            },
            "account": "1.2.25",
            "active": {
                "weight_threshold": 2,
                "account_auths": [
                    ["1.2.19", 1],
                    ["1.2.26", 1]
                ],
                "key_auths": [],
                "address_auths": []
```

```
            },
            "extensions": {}
        }],
        "result": [0, {}],
        "block_num": 859339,
        "trx_in_block": 0,
        "op_in_trx": 0,
        "virtual_op": 52216
    }]
}
```

2. get_fill_order_history

- Request:

```
{"id": 4, "method": "call", "params": [2, "get_fill_order_history", ["1.3.0", "1.3.2"
, 2]]}
```

- Parameters:

```
asset_id_type_a: asset id
asset_id_type_b: asset id
limit: maximum number of operations to retrieve
```

- Response:

```
{
    "id": 4,
    "jsonrpc": "2.0",
    "result": [{
        "id": "5.0.97429638",
        "key": {
            "base": "1.3.0",
            "quote": "1.3.2",
            "sequence": -7819491
        },
        "time": "2018-08-09T02:41:21",
        "op": {
            "fee": {
                "amount": 0,
                "asset_id": "1.3.0"
            },
            "order_id": "1.7.77233765",
            "account_id": "1.2.9765",
            "pays": {
                "amount": 1,
                "asset_id": "1.3.2"
            },
            "receives": {
                "amount": 300,
```

```
                    "asset_id": "1.3.0"
                },
                "fill_price": {
                    "base": {
                        "amount": 1150261,
                        "asset_id": "1.3.2"
                    },
                    "quote": {
                        "amount": 265643056,
                        "asset_id": "1.3.0"
                    }
                },
                "is_maker": true
        }
    }, {
        "id": "5.0.97429637",
        "key": {
            "base": "1.3.0",
            "quote": "1.3.2",
            "sequence": -7819490
        },
        "time": "2018-08-09T02:41:21",
        "op": {
            "fee": {
                "amount": 0,
                "asset_id": "1.3.2"
            },
            "order_id": "1.7.77348599",
            "account_id": "1.2.19408",
            "pays": {
                "amount": 300,
                "asset_id": "1.3.0"
            },
            "receives": {
                "amount": 1,
                "asset_id": "1.3.2"
            },
            "fill_price": {
                "base": {
                    "amount": 1150261,
                    "asset_id": "1.3.2"
                },
                "quote": {
                    "amount": 265643056,
                    "asset_id": "1.3.0"
                }
            },
            "is_maker": false
        }
    }]
}
```

3. get_market_history

`K line`

- Request:

```
{"id": 5, "method": "call", "params": [2, "get_market_history", ["1.3.0", "1.3.2", 36
00, "2018-08-08T00:00:00", "2018-08-08T02:00:00"]]}
```

- Parameters:

```
asset_id_type_a: asset id
asset_id_type_b: asset id
bucket_seconds: bucket size
start: start time
end: end time
```

- Response:

```
{
    "id": 5,
    "jsonrpc": "2.0",
    "result": [{
        "id": "5.1.11161845",
        "key": {
            "base": "1.3.0",
            "quote": "1.3.2",
            "seconds": 3600,
            "open": "2018-08-08T00:00:00"
        },
        "high_base": 2038748863,
        "high_quote": 9197000,
        "low_base": 509700000,
        "low_quote": 2371175,
        "open_base": 509700000,
        "open_quote": 2371175,
        "close_base": 2038748863,
        "close_quote": 9197000,
        "base_volume": 29533955,
        "quote_volume": 134091
    }, {
        "id": "5.1.11168859",
        "key": {
            "base": "1.3.0",
            "quote": "1.3.2",
            "seconds": 3600,
            "open": "2018-08-08T01:00:00"
        },
        "high_base": 673728209,
        "high_quote": 3031774,
```

```
            "low_base": 450000000,
            "low_quote": 2070000,
            "open_base": 450000000,
            "open_quote": 2070000,
            "close_base": 450000000,
            "close_quote": 2070000,
            "base_volume": "6693864279",
            "quote_volume": 30170097
        }, {
            "id": "5.1.11171475",
            "key": {
                "base": "1.3.0",
                "quote": "1.3.2",
                "seconds": 3600,
                "open": "2018-08-08T02:00:00"
            },
            "high_base": 113122171,
            "high_quote": 500000,
            "low_base": 450000000,
            "low_quote": 2070000,
            "open_base": 109899769,
            "open_quote": 494548,
            "close_base": 136363636,
            "close_quote": 616364,
            "base_volume": 293106406,
            "quote_volume": 1321394
        }]
}
```

4. get_market_history_buckets

- Request:

```
{"id": 6, "method": "call", "params": [2, "get_market_history_buckets", []]}
```

- Response:

```
{
    "id": 6,
    "jsonrpc": "2.0",
    "result": [15, 60, 300, 3600, 86400]
}
```