SENG-468

Project

TEST RUN-1

1 User Load

This assessment will form part of your project submission, designated as Test Run 1, and will contribute 10% towards your overall class grade. The deadline for this deliverable is 15th February 11:59 PST. The primary objective is to evaluate the foundational API functionality under a single-user load.

A 1 User Load implies that each transaction involves a single user interacting with the system. However, multiple users may participate in the test. For instance, a user (company) might register, log in, and go through the initialization process to create multiple stocks. The scenarios presented will involve a variety of transactions, designed to assess the fundamental accuracy of API responses, but API calls will be sequential instead of parallel.

It's important to note that a transaction in this context refers to the creation, sale, purchase, partial sale, or partial purchase of stocks, or a combination of any of these actions.

The following provides an overview of the users involved and transactions being done:

- 1) Register a company account
- 2) Create stock "Google" and add stock to the company account
- 3) Create stock "Apple" and add stock to the company account
- 4) Place a limit sell order for Google from the company account
- 5) Place a limit sell order for Apple from the company account
- 6) Register a user and add money to its wallet
- 7) Place a buy market order for Google stock from user's account
- 8) Place a buy market order for Apple stock from user's account
- 9) Place a sell limit order for Google stock from user's account
- 10) Place a buy market order for Google stock from company's account
- 11) Place another buy market order for Google stock from company's account which should fail.
- 12) Cancel all pending transactions with status PARTIALLY COMPLETE

The following table lists the test cases in sequence.

Http Method	Endpoint Name	Header	Request Body/ Query Params (If any)	Expected Response (JSON)
POST	<url>/register</url>	-	{"user_name":"VanguardETF", "password":"Vang@123", "name":"Vanguard Corp."}	{"success":true, "data":null}

			{"user_name":"VanguardETF",	{"success":false,
POST	<url>/register</url>	-	"password":"Comp@124", "name":"Vanguard Ltd."}	"data":{"error": <errormessage>}}</errormessage>
POST	<url>/login</url>	-	{"user_name":"VanguardETF", "password":"Vang@1234"}	{"success":false, "data":{"error": <errormessage>}}</errormessage>
POST	<url>/login</url>	-	{"user_name":"VanguardETF", "password":"Vang@123"}	{"success":true, "data":{ "token": <comptoken>}}</comptoken>
POST	<url>/createSto ck</url>	{"token": <comptok en>}</comptok 	{"stock_name":"Google"}	{"success":true,"data": {"stock_id": <googlestockid>}}</googlestockid>
POST	<url>/addStock ToUser</url>	{"token": <comptok en>}</comptok 	{"stock_id": <googlestockid>, "quantity": 550}</googlestockid>	{"success":true, "data":null}
POST	<url>/createSto ck</url>	{"token": <comptok en>}</comptok 	{"stock_name":"Apple"}	{"success":true,"data": {"stock_id": <applestockid>}}</applestockid>
POST	<url>/addStock ToUser</url>	{"token": <comptok en>}</comptok 	{"stock_id": <applestockid>, "quantity": 350}</applestockid>	{"success":true, "data":null}
GET	<url>/getStockP ortfolio</url>	{"token": <comptok en>}</comptok 	-	{"success":true,"data":[{"stock_id" : <googlestockid>,"st ock_name":"Google","quantity_ow ned":550},{"stock_id":<applestock id="">,"stock_name":"Apple","quantit y_owned":350}]}</applestock></googlestockid>
POST	<url>/placeStoc kOrder</url>	{"token": <comptok en>}</comptok 	{"stock_id": <googlestockid>, "is_buy":false, "order_type":"LIMIT", "quantity":550, "price":135}</googlestockid>	{"success":true,"data":null}
POST	<url>/placeStoc kOrder</url>	{"token": <comptok en>}</comptok 	{"stock_id": <applestockid>, "is_buy":false, "order_type":"LIMIT", "quantity":350, "price":140}</applestockid>	{"success":true,"data":null}
GET	<url>/getStockP ortfolio</url>	{"token": <comptok en>}</comptok 	-	{"success":true,"data":[]}
GET	<url>/getStockT ransactions</url>	{"token": <comptok en>}</comptok 	- Character and the Character and Character	{"success":true, "data":[{"stock_tx_id": <googleco mpstocktxid="">, "parent_stock_tx_id":null, "stock_id":<googlestockid>, "wallet_tx_id":null "order_status":"IN_PROGRESS", "is_buy":false, "order_type":"LIMIT", "stock_price":135,"quantity":550, "time_stamp":<timestamp>}, {"stock_tx_id":<applecompstockt xid=""> "parent_stock_tx_id":null, "stock_id":<applestockid>, "wallet_tx_id":null, "order_status":"IN_PROGRESS", "is_buy":false, "order_type":"LIMIT", "stock_price":140,"quantity":350, "time_stamp":<timestamp>}]}</timestamp></applestockid></applecompstockt></timestamp></googlestockid></googleco>
POST	<url>/register</url>		{"user_name":"FinanceGuru", "password":"Fguru@2024", "name":"The Finance Guru"}	{"success":true, "data":null}
POST	<url>/login</url>		{"user_name":" FinanceGuru", "password":"Fguru@2024"}	{"success":true, "data":{ "token": <user1token>}}</user1token>
GET	<url>/getStockP rices</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":[{"stock_id": <googlestocki d="">,"stock_name":"Google", "current_price":135},{"stock_id":": <applestockid>, "stock_name":"Apple",current_pric e":140}]}</applestockid></googlestocki>
POST	<url>/addMone yToWallet</url>	{"token": <user1tok en>}</user1tok 	{"amount":10000}	{"success":true, "data":null}
GET	<url>/getWallet</url>	{"token": <user1tok< td=""><td>-</td><td>{"success":true,</td></user1tok<>	-	{"success":true,

	Balance	en>}		"data":{"balance":10000}}
POST	<url>/placeStoc kOrder</url>	{"token": <user1tok en>}</user1tok 	{"stock_id": <googlestockid>, "is_buy":true, "order_type":"MARKET", "quantity":10}</googlestockid>	{"success":true, "data":null}
GET	<url>/getStockT ransactions</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":[{"stock_tx_id": <googlesto cktxid="">, "parent_stock_tx_id":null, "stock_id":<googlestockid>, "wallet_tx_id":<googlewallettxid>, "order_status":"COMPLETED", "is_buy":true, "order_type":"MARKET", "stock_price":135,"quantity":10,"ti me_stamp":<timestamp>}]}</timestamp></googlewallettxid></googlestockid></googlesto>
GET	<url>/getWallet Transactions</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":[{"wallet_tx_id"": <googlew allettxid="">, "stock_tx_id":<googlestocktxid>, "is_debit":true, "amount":1350, "time_stamp":<timestamp>}]}</timestamp></googlestocktxid></googlew>
GET	<url>/getWallet Balance</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":{"balance":8650}}
GET	<url>/getStockP ortfolio</url>	{"token": <userltok en>}</userltok 	-	{"success":true,"data":[{"stock_id" : <googlestockid>,"st ock_name":"Google","quantity_ow ned":10}]} {"success":true,</googlestockid>
GET	<url>/getStockT ransactions</url>	{"token": <comptok en>}</comptok 	- // Since the tx googleCompStockTxId is partially matched its status is changed to PARTIALLY_COMPLETE	"data":[{"stock_tx_id": <googlecompstocktxid: "parent_stock_tx_id":null,="" "stock_id":<googlestockid="">, "wallet_tx_id":null, "order_status":"PARTIALLY_COMPLETE ", "is_buy":false, "order_type":"LIMIT", "stock_price":135,"quantity":550, "time_stamp":<timestamp>}, {"stock_tx_id":<applecompstockt xid="">, "parent_stock_tx_id":null, "stock_id":<applestockid>, "wallet_tx_id":null, "order_status":"IN_PROGRESS", "is_buy":false "order_type":"LIMIT", "stock_price":140,"quantity":369, "time_stamp":<timestamp>}, {"stock_tx_id":<googlecompstock txid2="">, "parent_stock_tx_id":':<googlecompstock txid2="">, "parent_stock_tx_id":":<googlecompstock txid2="">, "parent_stock_tx_id":":<googlecompwallettxid>, "order_status":"COMPLETED", "is_buy":false, "order_type":"LIMIT", "stock_price":135,"quantity":10, "time_stamp":<timestamp>}]} {"success":true,</timestamp></googlecompwallettxid></googlecompstock></googlecompstock></googlecompstock></timestamp></applestockid></applecompstockt></timestamp></googlecompstocktxid:>
GET	Balance	en>}	-	"data":{"balance":1350}}
GET	<url>/getWallet Transactions</url>	{"token": <comptok en>}</comptok 	-	{"success":true, "data":[{"wallet_tx_id"": <googlec ompwallettxid="">:,"stock_tx_id":<g ooglecompstocktxid2="">, "is_debit":false, "amount":1350, "time_stamp":<timestamp>}]}</timestamp></g></googlec>
POST	<url>/placeStoc kOrder</url>	{"token": <user1tok en>}</user1tok 	{"stock_id": <applestockid>, "is_buy":true, "order_type":"MARKET", "quantity":20}</applestockid>	{"success":true, "data":null}
				{"success":true, "data":[{"stock_tx_id": <googleuserstocktxid> "parent_stock_tx_id":null, "stock_id":<googlestockid>, "wallet_tx_id":<googleuserwallettxid< td=""></googleuserwallettxid<></googlestockid></googleuserstocktxid>

_	_			
GET	<url>/getStockT ransactions</url>	{"token": <user1tok en>}</user1tok 	-	>, "order_status":"COMPLETED", "is_buy":true, "order_type":"MARKET", "stock_price":135,"quantity":10,"ti me_stamp": <timestamp>}, {"stock_tx_id":<appleuserstocktxid>, "parent_stock_tx_id":null, "stock_id":<applestockid>, "wallet_tx_id":<appleuserwallettxid>, "order_status":"COMPLETED", "is_buy":true, "order_type":"MARKET", "stock_price":120,"quantity":20,"ti me_stamp":<timestamp>}]}</timestamp></appleuserwallettxid></applestockid></appleuserstocktxid></timestamp>
GET	<url>/getWallet Transactions</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":[{"wallet_tx_id"": <googleuserwallettxid>:,"stock_tx_id":<googleuserstocktxid>, "is_debit":true,"amount":1350, "time_stamp":<timestamp>}, {"wallet_tx_id"":<appleuserwallettxid>:,"stock_tx_id":<appleuserstocktxid>, "is_debit":true, "amount":2400, "time_stamp":<timestamp>}]}</timestamp></appleuserstocktxid></appleuserwallettxid></timestamp></googleuserstocktxid></googleuserwallettxid>
GET	<url>/getWallet Balance</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":{"balance":6250}}
GET	<url>/getStockP ortfolio</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true,"data":[{"stock_id" : <googlestockid>,"st ock_name":"Google","quantity_ow ned":10}, {"stock_id" :<applestockid>,"st ock_name":"Apple","quantity_ow ned":20}]}</applestockid></googlestockid>
POST	<url>/placeStoc kOrder</url>	{"token": <user1tok en>}</user1tok 	{"stock_id": <googlestockid>, "is_buy":false, "order_type":"LIMIT", "quantity":5, "price":130}</googlestockid>	{"success":true, "data":null}
				{"success":true, "data":[{ <old transactions="">}, { "stock_tx_id":<googleuserstocktxid2> , "parent_stock_tx_id":null, "stock_id":<googlestockid>, "wallet_tx_id":null, "order_status":"IN_PROGRESS", "is_buy":false, "order_type":"LIMIT",</googlestockid></googleuserstocktxid2></old>
GET	<url>/getStockT ransactions</url>	{"token": <user1tok en>}</user1tok 	-	
				"stock_price":130,"quantity":5, "time_stamp": <timestamp>}]}</timestamp>
GET	<url>/getWallet Transactions</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data": [{ "wallet_tx_id":" <googleuserwallettxid>", "stock_tx_id":"<googleuserstocktxid>", "is_debit":true, "amount":1350, "time_stamp":"<timestamp>" }, {</timestamp></googleuserstocktxid></googleuserwallettxid>
				"wallet_tx_id"": <appleuserwallettxid>, "stock_tx_id":<appleuserstocktxid>, "is_debit"":true, "amount"":2400, "time_stamp":<timestamp> },]}</timestamp></appleuserstocktxid></appleuserwallettxid>
GET	<url>/getWallet Balance</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true, "data":{"balance":6250}}
GET	<url>/getStockP ortfolio</url>	{"token": <user1tok en>}</user1tok 	-	{"success":true,"data":[{ "stock_id": <googlestockid>, "stock_name":"Google", "quantity_owned":5}, {"stock_id" :<applestockid>,"st</applestockid></googlestockid>

	Ţ	T	Γ	Tarih mana 20.00 Anni 10.00 (4)
				ock_name":"Apple","quantity_ow ned":20}]}
GET	<url>/getStockP rices</url>	{"token": <comptok en>}</comptok 	-	{"success":true, "data":[{"stock_id": <googlestocki d="">,"stock_name":"Google", "current_price":130},{"stock_id":": <applestockid>, "stock_name":"Apple",current_pric e":140}]}</applestockid></googlestocki>
POST	<url>/placeStoc kOrder</url>	{"token": <comptok en>}</comptok 	{"stock_id": <googlestockid>, "is_buy":true, "order_type":"MARKET", "quantity":2}</googlestockid>	{"success":true,"data":null}
GET	<url>/getStockT ransactions</url>	{"token": <comptok en>}</comptok 	-	{"success":true, "data":[{ <old transactions="">,{"stock_tx_id":<googlecompstoc. txid3="">, "parent_stock_tx_id":null, "stock_id":<googlestockid>, "wallet_tx_id":":<googlecompwallettxid2>, "order_status":"COMPLETED", "is_buy":true, "order_type":"MARKET", "stock_price":130,"quantity":2, "time_stamp":<timestamp>}]}</timestamp></googlecompwallettxid2></googlestockid></googlecompstoc.></old>
GET	<url>/getWallet Transactions</url>	{"token": <comptok en>}</comptok 	-	{"success":true, "data":[{"wallet_tx_id": <googlec ompwallettxid="">:,"stock_tx_id":<g ooglecompstocktxid2="">, "is_debit":false, "amount":1350, "time_stamp":<timestamp>}, { "wallet_tx_id:<applecompwallettxid>", "stock_tx_id":<applecompstocktxid2>,"is_d ebit":false,"amount":2400,"time_stamp":"<tim estamp="">}, {"wallet_tx_id":<googlecompwa llettxid2="">,"stock_tx_id":<google compstocktxid3="">, "is_debit":true, "amount":260, "time_stamp":<timestamp>}]}</timestamp></google></googlecompwa></tim></applecompstocktxid2></applecompwallettxid></timestamp></g></googlec>
GET	<url>/getWallet Balance</url>	{"token": <comptok en>}</comptok 		{"success":true, "data":{"balance":3490}}
POST	<url>/placeStoc kOrder</url>	{"token": <comptok en>}</comptok 	{"stock_id": <googlestockid>, "is_buy":true, "order_type":"MARKET", "quantity":5} //Not enough sell orders since company cannot buy its own shares</googlestockid>	{"success":false,"data":{"error": <errormessage>}</errormessage>
POST	<url>/cancelSto ckTransaction</url>	{"token": <user1tok en>}</user1tok 	{"stock_tx_id": <googleuserstocktx id2="">}</googleuserstocktx>	{"success":true, "data":null}
POST	<url>/cancelSto ckTransaction</url>	{"token": <comptok en>}</comptok 	{"stock_tx_id":< googleCompStockTxId >}	{"success":true, "data":null}
POST	<url>/cancelSto ckTransaction</url>	{"token": <comptok en>}</comptok 	{"stock_tx_id":< appleCompStockTxId >}	{"success":true, "data":null}
GET	<url>/getStockT ransactions</url>	{"token": <comptok en>}</comptok 	-	{ "success":true, "data":[{ "stock_tx_id":" <googlecompstocktxid>",</googlecompstocktxid>

"stock_price":135. "quantity":550. "time_stamp"." <th></th>	
	"stock_price":135, "quantity":550, "time_stamp":" <timestamp>" }, { "stock_tx_id":"<applecompstocktxid: "parent_stock_tx_id":null,="" "stock_id":"applestockid="">", "wallet_tx_id":null, "order_status":"CANCELLED", "is_buy":false, "order_type":"LIMIT", "stock_price":140, "quantity":350, "time_stamp":"<timestamp>" }, { "stock_tx_id":*<googlecompstocktxid2" "is_buy":false,="" "order_status":"completed",="" "order_type":"limit",="" "parent_stock_tx_id":":*googlecompstocktxid2"="" "quantity":10,="" "stock_price":135,="" "time_stamp":"<timestamp="" "vallet_tx_id":":"googlecompwallettxid3"="">" }, { "stock_id":"<applecompstocktxid2" "is_buy":false,="" "order_status":"completed",="" "order_type":"limit",="" "parent_stock_tx_id":<applecompstocktxid2"="" "quantity":20,="" "stock_id":"<applecompstocktxid2"="" "stock_price":140,="" "time_stamp":"<timestamp="">" }, { "stock_tx_id":"googleCompStockTxId3"">"parent_stock_tx_id":null, "stock_id":"googleCompStockTxId3"">"parent_stock_tx_id":null, "stock_id":"googleCompStockTxId2>, "order_type":"MARKET", "stock_price":130, "quantity":2,</applecompstocktxid2"></googlecompstocktxid2"></timestamp></applecompstocktxid:></timestamp>
}	}
GET ortfolio curl>/getStockP ortfolio curl>/ge	: <googlestockid>,"st ock_name":"Google","quantity_ow ned":542},{"stock_id":<applestock Id>,"stock_name":"Apple","quantit</applestock </googlestockid>
GET <url>/getStockT ransactions {"token":<user1tok en="">} { "success":true, "data":[</user1tok></url>	· · · · · · · · · · · · · · · · · · ·

```
"stock_tx_id":"<googleUserStockTxId>",
                                                                                            "parent stock tx id":null,
                                                                                            "stock_id":"<googleStockId>",
                                                                                            "wallet_tx_id":"<googleUserWalletTxId>",
                                                                                            "order_status":"COMPLETED",
                                                                                            "is_buy":true,
                                                                                            "order_type":"MARKET",
                                                                                            "stock_price":135,
                                                                                            "quantity":10,
                                                                                            "time_stamp":"<timestamp>"
                                                                                            "stock_tx_id":"<appleUserStockTxId>",
                                                                                            "parent_stock_tx_id":null,
                                                                                            "stock_id":"<appleStockId>",
                                                                                            "wallet_tx_id":"<appleUserWalletTxId>",
                                                                                            "order_status":"COMPLETED",
                                                                                            "is_buy":true,
                                                                                            "order_type": "MARKET",
                                                                                            "stock_price":120,
                                                                                            "quantity":20,
                                                                                            "time_stamp":"<timestamp>"
                                                                                        "stock_tx_id":<googleUserStockTxId2>,
                                                                                        "parent_stock_tx_id":null,
                                                                                        "stock_id":"<googleStockId>",
                                                                                        "wallet_tx_id":null,
                                                                                       order_status":"CANCELLED",
                                                                                        "is_buy":false,
                                                                                        "order_type":"LIMIT",
                                                                                        "stock_price":130,
                                                                                        "quantity":5,
                                                                                        "time_stamp":"<timestamp>"
                                                                                            "stock_tx_id":<googleUserStockTxId3>,
                                                                                       'parent_stock_tx_id":":<googleUserStockTxId2>,
                                                                                       'stock id":<googleStockId>,
                                                                                       "wallet_tx_id"":":"<googleUserWalletTxId2>",
                                                                                            "order_status": "COMPLETED",
                                                                                            "is_buy":false,
                                                                                            "order_type":"LIMIT",
                                                                                            "stock_price":130,
                                                                                            "quantity":2,
                                                                                            "time_stamp":"<timestamp>"
                                                                                          }]
                                                                                        {"success":true,"data":[{"stock_id"
                                                                                        :<googleStockId>,"st
           <url>/getStockP
                             {"token":<user1Tok
                                                                                        ock_name":"Google","quantity_owned":8},{"sto
GET
          ortfolio
                                                                                        ck_id":<appleStock
                            en>}
                                                                                        Id>,"stock_name":"Apple","quantit
                                                                                        v_owned":20}]}
          <url>/getStockP
                             {"token":<invalidT
                                                                                        {"success":false,
GET
                                                                                        "data":{"error":<errorMessage>}}
          ortfolio
                             oken>}
                             {"token":<invalidT
           <url>/getWallet
                                                                                        {"success":false,
GET
                                                                                        "data":{"error":<errorMessage>}}
          Transactions
                             oken>}
                             {"token":<invalidT
           <url>/getStockT
                                                                                        {"success":false,
GET
                                                                                        "data":{"error":<errorMessage>}}
          ransactions
                             oken>}
                             {"token":<user1Tok
                                                   {"amount": -10000}
           <url>/addMone
                                                                                        {"success":false,
POST
          yToWallet
                                                   //balance-amount<0
                                                                                        "data":{"error":<errorMessage>}}
                             en>}
                                                   {"stock_id":<googleStockId>,
                                                   "is_buy":true,
           <url>/placeStoc
                             {"token":<user1Tok
                                                   "order_type": "MARKET",
                                                                                        {"success":false,
POST
                                                                                        "data":{"error":<errorMessage>}}
          kOrder
                                                   "quantity":1,
```

			"price":80} //Price given for Market buy	
POST	<url>/addMone yToWallet</url>	{"token": <invalidt oken="">}</invalidt>	{"amount": -100}	{"success":false, "data":{"error": <errormessage>}}</errormessage>
POST	<url>/placeStoc kOrder</url>	{"token": <invalidt oken>}</invalidt 	{"stock_id": <googlestockid>, "is_buy":true, "order_type":"LIMIT", "quantity":1, "price":80}</googlestockid>	{"success":false, "data":{"error": <errormessage>}}</errormessage>