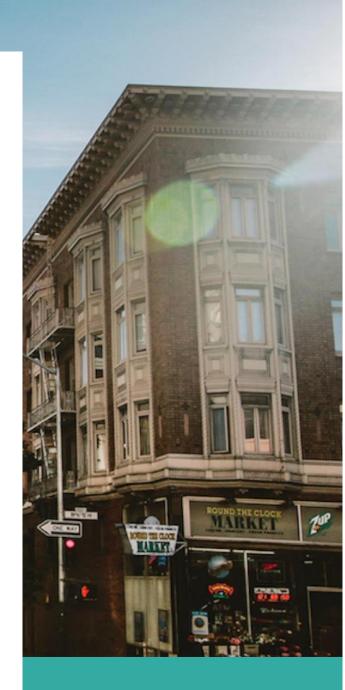# Smallcase

Backend task Documentation

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Smallcase Portfolio Tracking API.

Portfolio Tracking API.

A portfolio tracking API which allows adding/deleting/updating trades and can do basic return calculations etc. For simplicity, we assume there is only one user who can have single portfolio.

Basic functionality includes –

1. Get all trades from portfolio
2. Add trade to portfolio
3. Buy Shares
4. Sell Shares
5. Remove trade from portfolio Get all holdings.
6. Get cumulative returns of portfolio.

Heroku Base URL: https://harshit-portfolio-tracking.herokuapp.com/

Trade URL: https://harshit-portfolio-tracking.herokuapp.com/trade

Portfolio URL: https://harshit-portfolio-tracking.herokuapp.com/portfolio

Postman Collection: https://www.getpostman.com/collections/3bdf4af0c492373202d7

Documentation: https://documenter.getpostman.com/view/7585955/TVCmT5c3

Getting started:

1) git clone https://github.com/harshitsinghai77/portfolio-tracking-node-API.git
2) Navigate to folder
3) Run npm install
4) node app.js

Working Demo
The following screenshots will help with the payload and the expected result

| GET ▼ | https://harshit-portfolio-tracking.herokuapp.com/trade | Send ▼ |

Params Authorization Headers (7) Body Pre-request Script Tests Settings

Body Cookies Headers (9) Test Results   Status: 200 OK Time: 12.81 s Size: 633 B Sav

Pretty Raw Preview Visualize JSON ▼

```
 1  {
 2      "success": true,
 3      "message": "All Portfolio trades",
 4      "data": [
 5          {
 6              "avgBuyPrice": 1833.45,
 7              "shares": 5,
 8              "_id": "5f5a30d39f45020017354d16",
 9              "tickerSymbol": "TCS",
10              "__v": 0
11          },
12          {
13              "avgBuyPrice": 319.25,
14              "shares": 5,
15              "_id": "5f5a499667a3f500174c958f",
```

POST ▼	https://harshit-portfolio-tracking.herokuapp.com/trade

Params   Authorization   Headers (9)   **Body** ●   Pre-request Script   Tests   Settings

● none   ● form-data   ● x-www-form-urlencoded   ◉ raw   ● binary   ● GraphQL   JSON ▼

```json
1  {
2      "tickerSymbol": "ACCENTURE",
3      "avgBuyPrice": 125,
4      "shares": 10
5  }
```

Body   Cookies   Headers (9)   Test Results   Status: **201 Created**   Time:

Pretty   Raw   Preview   Visualize   JSON ▼

```json
1  {
2      "success": true,
3      "message": "Trade created and added to portfolio",
4      "data": {
5          "avgBuyPrice": 125,
6          "shares": 10,
7          "_id": "5f5a6fb8bd420d00177954c0",
```

▸ Buy Shares   Examples 1 ▼   BUILD

PATCH ▼	https://harshit-portfolio-tracking.herokuapp.com/trade/5f5a6fb8bd420d00177954c0/buys	Send ▼

Params   Authorization   Headers (9)   **Body** ●   Pre-request Script   Tests   Settings

● none   ● form-data   ● x-www-form-urlencoded   ◉ raw   ● binary   ● GraphQL   JSON ▼

```json
1  {
2      "buyPrice": 100,
3      "shares": 15
4  }
```

Body   Cookies   Headers (9)   Test Results   Status: **200 OK**   Time: **863 ms**   Size: **440 B**   Save

Pretty   Raw   Preview   Visualize   JSON ▼

```json
1  {
2      "success": true,
3      "message": "Added 15 shares succesfully",
4      "data": {
5          "avgBuyPrice": 110,
6          "shares": 25,
7          "_id": "5f5a6fb8bd420d00177954c0",
8          "tickerSymbol": "ACCENTURE",
```

▶ Sell Shares

PATCH ▼ https://harshit-portfolio-tracking.herokuapp.com/trade/5f5a6fb8bd420d00177954c0/sells

Params   Authorization   Headers (9)   **Body** ●   Pre-request Script   Tests   Settings

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   ○ GraphQL   JSON ▼

```
1  {
2      "shares": 10
3  }
```

Body   Cookies   Headers (9)   Test Results   🌐 Status: 200 OK   Time: 977 ms

Pretty   Raw   Preview   Visualize   JSON ▼   ⇥

```
1  {
2      "success": true,
3      "message": "Total 10 shares sold succesfully",
4      "data": {
5          "avgBuyPrice": 110,
6          "shares": 15,
7          "_id": "5f5a6fb8bd420d00177954c0",
8          "tickerSymbol": "ACCENTURE",
```

▸ **Remove trade from portfolio** Examples **1** ▾ | BUILD

| DELETE ▾ | https://harshit-portfolio-tracking.herokuapp.com/trade/5f5a6fb8bd420d00177954c0 | **Send** ▾ |

Params | Authorization | Headers (7) | Body | Pre-request Script | Tests | Settings

Query Params

KEY	VALUE	DESCRIPTION	•••
Key	Value	Description	

Body | Cookies | Headers (9) | Test Results   Status: **200 OK**   Time: **1929 ms**   Size: **438 B**   Save

Pretty | Raw | Preview | Visualize | JSON ▾

```
1  {
2      "success": true,
3      "message": "Trade deleted succesfully",
4      "data": {
5          "avgBuyPrice": 110,
6          "shares": 15,
7          "_id": "5f5a6fb8bd420d00177954c0",
8          "tickerSymbol": "ACCENTURE",
```

▸ Get all holdings

GET ▾	https://harshit-portfolio-tracking.herokuapp.com/portfolio/holdings

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings

Query Params

KEY	VALUE	DESCRIPT

Body   Cookies   Headers (9)   Test Results   🌐 Status: 200 OK   Tim

Pretty   Raw   Preview   Visualize   JSON ▾   ⇄

```
 1  {
 2      "success": true,
 3      "message": "Aggregate view of all securities in the portfolio",
 4      "data": [
 5          {
 6              "_id": null,
 7              "total_share_quantity": 17,
 8              "total_average_buy_price": 2591.27
 9          }
10      ]
11  }
```

Examples **1** ▾ | BUILD

| GET ▾ | https://harshit-portfolio-tracking.herokuapp.com/portfolio/cumulative_returns | **Send** ▾ |

Params   Authorization   Headers (7)   Body   Pre-request Script   Tests   Settings

KEY	VALUE	DESCRIPTION	⋯
Key	Value	Description	

Body   Cookies   Headers (9)   Test Results   Status: 200 OK   Time: 586 ms   Size: 351 B   Save

Pretty   Raw   Preview   Visualize   JSON ▾   ⇥

```
1  {
2      "success": true,
3      "message": "cumulative returns: -12133.49",
4      "data": -12133.49
5  }
```

Important Notes:

1. The API expects PATCH request and not PUT request
2. "/trade/:trade_id/buys" and "/trade/:trade_id/sells" expects trade_id to be the _id of the document. You can _id from the https://harshit-portfolio-tracking.herokuapp.com/trade

3. Payload information can be find in the documentation here at
   Documentation: https://documenter.getpostman.com/view/7585955/TVCmT5c3
4. All the postman collection can be imported from
   https://www.getpostman.com/collections/3bdf4af0c492373202d7

Docstrings and comments
Docstrings and comments are included in the code as required.

Error handling

The below errors are handled in the flask app

1) Content type should be application/json
2) Post body cannot be empty.

Response format

All responses consists of the following format

1) success: boolean
2) message: string
3) data: Object

Thanks

Thank you for giving me this opportunity. I would love if you could provide a feedback. Looking forward to hearing from you soon

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