**API Design Documentation**

**Overview**

This document outlines the API design for the Portfolio Tracking API. The API allows users to manage their portfolio by adding, updating, and removing trades, as well as retrieving portfolio information and calculating returns.

**Endpoints –**

**Retrieve Portfolio**

Endpoint: /portfolio

Method: GET

Description: Retrieves the entire portfolio with trades.

Response Format:

Success:

{

"success": true,

"data": {

"\_id": "65e8b4b5a46be6246313b4a2",

"trades": [

{

"\_id": "65e8b3d9a46be6246313b49d",

"stockId": "65e8ab8090041be4307bf84c",

"date": "2015-04-10T00:00:00.000Z",

"price": 900,

"type": "buy"

},

{

"\_id": "65e8b3d9a46be6246313b49e",

"stockId": "65e8ab8090041be4307bf84c",

"date": "2015-05-10T00:00:00.000Z",

"price": 1000,

"type": "sell"

},

{

"\_id": "65e8b3d9a46be6246313b49f",

"stockId": "65e8ab8090041be4307bf84c",

"date": "2015-06-10T00:00:00.000Z",

"price": 850,

"type": "buy"

}

],

"\_\_v": 2

}

}

Error:

{

"success": false,

"error": "error\_message"

}

**Add Trade**

Endpoint: /addTrade

Method: POST

Description: Adds a new trade to the portfolio.

Request Body:

{

"stockId": "65e8ab8090041be4307bf84c",

"date": "2015-04-10",

"price": 900,

"type": "buy"

}

Response Format:

Success:

{

"success": true

}

Error:

{

"success": false,

"error": "error\_message"

}

**Update Trade**

Endpoint: /updateTrade/:id

Method: POST

Description: Updates an existing trade in the portfolio.

Request Body:

{

"tradeId": "65e8ab8090041be4307bf84c", // The ID of the trade you want to update

"date": "2023-01-15", // New date for the trade

"price": 1100, // New price for the trade

"type": "sell" // New type for the trade

}

Response Format:

Success:

{

"success": true

}

Error:

{

"success": false,

"error": "error\_message"

}

**Remove Trade**

Endpoint: /removeTrade/:id

Method: POST

Description: Removes a trade from the portfolio.

Request Body:

{

"tradeId": "65e8ab8090041be4307bf84c", // The ID of the trade you want to delete

}

Response Format:

Success:

{

"success": true

}

Error:

{

"success": false,

"error": "error\_message"

}

**Get Holdings**

Endpoint: /holdings

Method: GET

Description: Retrieves holdings in an aggregate view.

Response Format:

Success:

{

"success": true,

"data": [

{

"stockId": "65e8ab8090041be4307bf84c",

"quantity": 1,

"averagePrice": 900

},

{

"stockId": "65e8ab8090041be4307bf84c",

"quantity": 1,

"averagePrice": 850

}

]

}

Error:

{

"success": false,

"error": "error\_message"

}

**Get Cumulative Returns**

Endpoint: /returns

Method: GET

Description: Retrieves cumulative returns.

Response Format:

Success:

{

"success": true,

"data": {

"cumulativeReturn": 250

}

}