

## Investment API Documentation

### Introduction

The Investment API provides endpoints to manage various aspects of investments, including products, investors, withdrawals, and audit records.

### Base URL

The base URL for all API endpoints is:

**`http://localhost:8080/`**

### Authentication

API endpoints may require authentication. You should use an authentication method like OAuth 2.0 or API keys. Details on how to authenticate are provided separately.

### Error Handling

The API follows standard HTTP status codes to indicate the success or failure of requests. Error responses include a JSON object with an error message.

Example Error Response

json

```
{ "error": "Invalid request parameters" }
```

### Investor

Create Investor

- Endpoint: **POST /investors**
- Description: Create a new investor.
- Request Body:

json

```
{ "name": "John Doe",  
  "email": "johndoe@example.com" }
```

- Response:

json

```
{ "id": 1,  
  "name": "John Doe",  
  "email": "johndoe@example.com" }
```

## Get All Investors

- Endpoint: **GET /investors**
- Description: Retrieve a list of all investors.
- Response:

json

```
[ { "id": 1,  
  "name": "John Doe",  
  "email": "johndoe@example.com" },  
  
  { "id": 2,  
    "name": "Alice Smith",  
    "email": "alicesmith@example.com" } ]
```

## Product

### Create Product

- Endpoint: **POST /products**
- Description: Create a new investment product.
- Request Body:

json

```
{ "name": "Savings Plan",  
  "type": "SAVINGS",  
  "balance": 1000.00 }
```

- Response:

json

```
{ "id": 1,  
  "name": "Savings Plan",  
  "type": "SAVINGS",  
  "balance": 1000.00 }
```

## Get All Products

- Endpoint: **GET /products**
- Description: Retrieve a list of all investment products.
- Response:

json

```
[ { "id": 1,  
  "name": "Savings Plan",  
  "type": "SAVINGS",  
  "balance": 1000.00 },  
  
  { "id": 2,  
    "name": "Stock Portfolio",  
    "type": "STOCKS",  
    "balance": 5000.00 } ]
```

## Withdrawal

### Create Withdrawal

- Endpoint: **POST /withdrawals**
- Description: Initiate a withdrawal from an investment product.
- Request Body:

json

```
{ "investorId": 1,  
  "productId": 1,  
  "withdrawalAmount": 500.00 }
```

- Response:

json

```
{ "id": 1,  
  "investorId": 1,  
  "productId": 1,  
  "withdrawalAmount": 500.00,  
  "status": "PENDING" }
```

## Get All Withdrawals

- Endpoint: **GET /withdrawals**
- Description: Retrieve a list of all withdrawal requests.
- Response:

json

```
[ { "id": 1,  
  "investorId": 1,  
  "productId": 1,  
  "withdrawalAmount": 500.00,  
  "status": "PENDING" },  
  
  { "id": 2,  
    "investorId": 2,  
    "productId": 2,  
    "withdrawalAmount": 1000.00,  
    "status": "APPROVED" } ]
```

## Audit Records

### Get Audit Records for Product

- Endpoint: **GET /products/{productId}/audit-records**
- Description: Retrieve audit records for a specific product.
- Response:

json

```
[ { "id": 1, "productId": 1,  
  "timestamp": "2023-01-01T12:00:00Z",  
  "message": "Product balance updated." },  
  
  { "id": 2,  
    "productId": 1,  
    "timestamp": "2023-01-02T10:30:00Z",  
    "message": "Withdrawal request received." } ]
```

## **Conclusion**

This documentation outlines the available endpoints and their usage