

Test task

Dear Candidate,

There's a third party payments service with JSON API. API methods require authentication by passing a bearer token (<https://tools.ietf.org/html/rfc6750>). There's a specific API endpoint to obtain such tokens.

Your goal is to write an SDK library for that API. The code you write must be production ready and follow best practices. Please, provide the result as a public repository on GitHub (or any other public repository hosting).

API Methods

Authentication

Description: Issues a temporary authentication token that can be used for the rest of the calls.

Method: POST

Path: /v1/authenticate

Request body:

```
1 {  
2   "username": "serious_business",  
3   "password": "suchPassw0rdSecure"  
4 }
```

Response body:

```
1 {  
2   "authToken": "fJizPj8LxL3eKOylGEIMPcdPQqgxN42oprukdHLu8jgbV",  
3   "expiresIn": "2017-01-22T11:26:14.805Z"  
4 }
```

List payments

Description: Returns the list of existing payments.

Method: GET

Path: /v1/payments

Request body: none

Response body:

```
1  [  
2    {  
3      "id": "9781bd16-8221-4eb6-a37f-2eb60acc1338",  
4      "payeeId": "a5b500e1-2ba7-4623-baa2-e09b6a721b5e",  
5      "payerId": "d8f090ae-a4ed-42dc-9181-f51564d0e304",  
6      "paymentSystem": "yandexMoney",  
7      "paymentMethod": "PMB",  
8      "amount": 1337.01,  
9      "currency": "RUB",  
10     "status": "created",  
11     "comment": null,  
12     "created": "2018-03-09T11:26:14.805Z",  
13     "updated": "2018-03-09T11:31:14.666Z"  
14   }  
15 ]
```

Create payment

Description: Creates a new payment.

Method: POST

Path: /v1/payments

Request body:

```
1  {  
2    "payeeId": "fc1941f3-7912-4b3d-8fdb-dcb9733aa994",  
3    "payerId": "0499274e-9325-43b1-9cff-57c957e9a337",
```

```
4  "paymentSystem": "ingenico",
5  "paymentMethod": "mastercard",
6  "amount": 100500.42,
7  "currency": "USD",
8  "comment": "Salary for March"
9  }
```

Response body:

```
1  {
2    "id": "9781bd16-8221-4eb6-a37f-2eb60acc1338",
3    "payeeId": "a5b500e1-2ba7-4623-baa2-e09b6a721b5e",
4    "payerId": "d8f090ae-a4ed-42dc-9181-f51564d0e304",
5    "paymentSystem": "yandexMoney",
6    "paymentMethod": "PMB",
7    "amount": 1337.01,
8    "currency": "RUB",
9    "status": "created",
10   "comment": null,
11   "created": "2018-03-09T11:26:14.805Z",
12   "updated": "2018-03-09T11:31:14.666Z"
13 }
```

Get payment

Descriptions: Returns an existing payment.

Method: GET

Path: /v1/payment/:id

Request body: none

Response body:

```
1  {
2    "id": "9781bd16-8221-4eb6-a37f-2eb60acc1338",
3    "payeeId": "a5b500e1-2ba7-4623-baa2-e09b6a721b5e",
```

```
4  "payerId": "d8f090ae-a4ed-42dc-9181-f51564d0e304",
5  "paymentSystem": "yandexMoney",
6  "paymentMethod": "PMB",
7  "amount": 1337.01,
8  "currency": "RUB",
9  "status": "created",
10 "comment": null,
11 "created": "2018-03-09T11:26:14.805Z",
12 "updated": "2018-03-09T11:31:14.666Z"
13 }
```

Approve payment

Description: Approves a payment, effectively it moves money from a payer account to a payeeaccount.

Method: PUT

Path: /v1/payments/:id/approve

Request body: none

Response body: none

Cancel payment

Description: Cancels created payment that hasn't been approved yet.

Method: PUT

Path: /v1/payments/:id/cancel

Request body: none

Response body: none

HTTP Status codes

Each response contains a proper HTTP code set. Here are the details:

- 200 — Success
- 201 — Created
- 400 — Client error (e.g. validation)
- 401 — Unauthorized
- 500 — Servererror

Errors

In case of an error (both client 4xx and server 5xx), response will contain an object with the following structure:

```
1 {  
2   code: string;  
3   message: string;  
4 }
```

Here's the list of the errors that the API may return:

```
1 {  
2   "code": "ERR_UNATHORIZED",  
3   "message": "No auth token provided"  
4 }
```

```
1 {  
2   "code": "ERR_AUTH_TOKEN_EXPIRED",  
3   "message": "Auth token expired"  
4 }
```

```
1 {  
2   "code": "ERR_VALIDATION",  
3   "message": "Validation failed",  
4   "details": [  
5     {  
6       "message": "'amount' field is required",  
7       "path": ["amount"],  
8       "value": "null"  
9     }  
10  ]
```

```
11 }
```

```
1 {  
2   "code": "ERR_CANNOT_APPROVE",  
3   "message": "Cannot approve a payment that has already been can  
celled"  
4 }
```

```
1 {  
2   "code": "ERR_CANNOT_CANCEL",  
3   "message": "Cannot cancel a payment that has already been appr  
oved"  
4 }
```