

FORM3 payments API design

RESTfull API design endpoints

GET	/health	Fetch payment service health	↶
GET	/payments	List payments	↶
POST	/payments	Create payment	↶
PATCH	/payments	Patch payment	↶
GET	/payments/{id}	Fetch payment	↶
DELETE	/payments/{id}	Delete payment	↶

API acceptance criteria

<https://github.com/pawmart/form3-payments/blob/master/swagger/swagger.yml>

```
Feature: Create a payment
As an API user
I want to get payment
So I can record a payment transaction
Scenario: Create payment
  When I send a "POST" request to "/v1/payments" with:
    """
    {
      "data": {
        "organisation_id": "743d5b63-8e6f-432e-a8fa-c5d8d2ee5fcb",
        "type": "Payment",
        "attributes": {
          "amount": "100.21",
          "currency": "GBP",
          "reference": "piano lessons",
          "beneficiary_party": {
            "account_name": "W Owens",
            "account_number": "31926819"
          },
          "debtor_party": {
            "account_name": "EJ Brown Black",
            "account_number": "GB29XABC10"
          }
        }
      }
    }
    """
  Then the response code should be 201
  And the JSON response should contain payment data
Scenario: Fail to create payment
  When I send a "POST" request to "/v1/payments" with:
    """
    {
    }
    """
  Then the response code should be 400
  And the JSON response should contain an error

Feature: Delete payment
As an API user
I want to delete a payment
So I can remove a payment resource
Scenario: Delete payment success
  When I send a "DELETE" request to "/v1/payments/b8dfdf10-33fa-4301-b859-e19853641651"
  Then the response code should be 204
Scenario: Delete payment fail when not exist
  When I send a "DELETE" request to "/v1/payments/f3c5f34a-3985-44b2-bb1d-a51ffda32baf"
  Then the response code should be 404
Scenario: Delete payment fail due to non uuid
  When I send a "DELETE" request to "/v1/payments/abc"
  Then the response code should be 422

Feature: Fetch a payment
As an API user
I want to get a payment
So I can get details of the payment transaction
Scenario: Get payment
  When I send a "GET" request to "/v1/payments/a8dfdf10-33fa-4301-b859-e19853641655"
  And the JSON response should contain payment data
  Then the response code should be 200
Scenario: Fail to get a payment
  When I send a "GET" request to "/v1/payments/f3c5f34a-3985-44b2-bb1d-a51ffda32baf"
  Then the response code should be 404
  And the JSON response should contain an error
Scenario: Fail to get a payment due to non uuid
```

When I send a "GET" request to "/v1/payments/abc"
Then the response code should be 422

Feature: List payments

As an API user

I want to get payments

So I can get a list of payment transactions

Scenario: List filtered payments

When I send a "GET" request to "/v1/payments?filter[organisation_id]=743d5b63-8e6f-432e-a8fa-c5d8d2ee5fcb"

Then the response code should be 200

And the JSON response should contain payment data collection

Scenario: List filtered payments but not found

When I send a "GET" request to "/v1/payments?filter[organisation_id]=f3c5f34a-3985-44b2-bb1d-a51ffda32baf"

Then the response code should be 200

And the JSON response should contain no payment data collection

Scenario: List payments

When I send a "GET" request to "/v1/payments"

Then the response code should be 200

And the JSON response should contain payment data collection

Feature: Update payment

As an API user

I want to update a payment

So I can change the state of the payment

Scenario: Update payment

When I send a "PATCH" request to "/v1/payments" with:

```
""""
{
  "data": {
    "id": "a8dfdf10-33fa-4301-b859-e19853641655",
    "organisation_id": "743d5b63-8e6f-432e-a8fa-c5d8d2ee5fcb",
    "type": "Payment",
    "attributes": {
      "reference": "abc"
    }
  }
}
""""
```

And the response code should be 200

Feature: Check health

As an API user

I want to check API health

So I can be sure I can interact with the API

Background:

When I send a "GET" request to "/v1/health"

Scenario: Success

Then the response code should be 200

And the response should have health status up

API detailed Swagger design

<https://github.com/pawmart/form3-payments/tree/master/features/payments>

```
basePath: /v1
host: localhost:6543
info: {title: Form3 Payments API Test – Paweł Martuszczyński, version: '1'}
produces: [application/vnd.api+json, application/json]
schemes: [http]
swagger: '2.0'
paths:
  /health:
    get:
      responses:
        200:
          description: Payment service health
          schema: {$ref: '#/definitions/Health'}
          summary: Fetch payment service health
  /payments:
    get:
      parameters:
        - description: Filter by organisation id
          in: query
          items: {format: uuid, type: string}
          name: filter[organisation_id]
          required: false
          type: array
      responses:
        200:
          description: List of payment details
          schema: {$ref: '#/definitions/PaymentDetailsListResponse'}
        500:
          description: Fatal error
          schema: {$ref: '#/definitions/ApiError'}
          summary: List payments
    post:
      consumes: [application/vnd.api+json, application/json]
      parameters:
        - in: body
          name: Payment creation request
          schema: {$ref: '#/definitions/PaymentCreation'}
      responses:
        201:
          description: Payment creation response
          schema: {$ref: '#/definitions/PaymentCreationResponse'}
        400:
          description: Payment creation error
          schema: {$ref: '#/definitions/ApiError'}
        500:
          description: Fatal error
          schema: {$ref: '#/definitions/ApiError'}
          summary: Create payment
    patch:
      consumes: [application/vnd.api+json, application/json]
      parameters:
        - in: body
          name: Payment update request
          schema: {$ref: '#/definitions/PaymentUpdate'}
      responses:
        200:
          description: Payment update response
        400:
          description: Payment update error
          schema: {$ref: '#/definitions/ApiError'}
        404:
          description: Payment update not found
          schema: {$ref: '#/definitions/ApiError'}
        500:
          description: Fatal error
          schema: {$ref: '#/definitions/ApiError'}
```

```

    summary: Patch payment
  /payments/{id}:
    get:
      parameters:
        - {description: Payment Id, format: uuid, in: path, name: id, required: true, type: string}
      responses:
        200:
          description: Payment details
          schema: {$ref: '#/definitions/PaymentDetailsResponse'}
        404:
          description: Resource not found
          schema: {$ref: '#/definitions/ApiError'}
    summary: Fetch payment
  delete:
    consumes: [application/vnd.api+json, application/json]
    parameters:
      - {description: Payment Id, format: uuid, in: path, name: id, required: true, type: string}
    responses:
      204:
        description: Payment deletion response
      404:
        description: Payment deletion error
        schema: {$ref: '#/definitions/ApiError'}
    summary: Delete payment
definitions:
  ApiError:
    properties:
      error_code: {type: string}
      error_message: {type: string}
    type: object
  Health:
    properties:
      status:
        description: Status of the service. Can either be `up` or `down`.
        enum: [up, down]
        example: up
        type: string
    type: object
  Links:
    properties:
      first: {description: Link to the first resource in the list, example: 'http://localhost:6543/v1/api_name/resource_type', type: string}
      last: {description: Link to the last resource in the list, example: 'http://localhost:6543/v1/api_name/resource_type', type: string}
      next: {description: Link to the next resource in the list, example: 'http://localhost:6543/v1/api_name/resource_type', type: string}
      prev: {description: Link to the previous resource in the list, example: 'http://localhost:6543/v1/api_name/resource_type', type: string}
      self: {description: Link to this resource type, example: 'http://localhost:6543/v1/api_name/resource_type', type: string}
    type: object
  Payment:
    properties:
      id:
        description: Unique resource ID
        example: 7826c3cb-d6fd-41d0-b187-dc23ba928772
        pattern: ^[[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}]$
        type: string
      organisation_id:
        description: Unique ID of the organisation this resource is created by
        example: ee2fb143-6dfe-4787-b183-ca8ddd4164d2
        pattern: ^[[0-9a-fA-F]{8}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{4}\-[0-9a-fA-F]{12}]$
        type: string
    type:
      description: Name of the resource type
      example: payments
      pattern: '^[A-Za-z_]*$'

```

```

    type: string
  version:
    description: Version number
    example: 0
    minimum: 0
    type: integer
    x-nullable: true
  created_on:
    type: integer
    x-nullable: true
  modified_on:
    type: integer
    x-nullable: true
  attributes:
    properties:
      amount:
        description: Amount of money moved between the instructing agent and instructed agent
        example: '10.00'
        pattern: ^[0-9.]{0,20}$
        type: string
      currency:
        description: Currency of the transaction amount. Currency code as defined in [ISO 4217](http://www.iso.org/iso/home/standards/currency_codes.htm)
        example: EUR
        type: string
        x-length: 3
      reference:
        description: Payment reference for beneficiary use
        example: rent for oct
        type: string
        x-length: 18
      beneficiary_party:
        properties:
          account_name:
            description: Name of beneficiary as given with account
            example: James Bond
            type: string
            x-length: 40
          account_number:
            description: Beneficiary account number
            example: '71268996'
            type: string
            x-length: 34
      debtor_party:
        properties:
          account_name:
            description: Name of debtor as given with account
            example: Jane Bond
            type: string
            x-length: 40
          account_number:
            description: Debtor account number. Allows upper case and numeric characters.
            example: '12345678'
            type: string
            x-length: 34
    type: object
  type: object
  required: [organisation_id, attributes]
  type: object
PaymentCreation:
  properties:
    data: {$ref: '#/definitions/Payment'}
  type: object
PaymentUpdate:
  properties:
    data: {$ref: '#/definitions/Payment'}
  type: object
PaymentCreationResponse:
  properties:
    data: {$ref: '#/definitions/Payment'}
    links: {$ref: '#/definitions/Links'}

```

```
type: object
PaymentDetailsListResponse:
  properties:
    data:
      items: {$ref: '#/definitions/Payment'}
      type: array
      links: {$ref: '#/definitions/Links'}
    type: object
PaymentDetailsResponse:
  properties:
    data: {$ref: '#/definitions/Payment'}
    links: {$ref: '#/definitions/Links'}
  type: object
```