Change log

Version	Change	Date
1.0	Initial version.	June 06, 2021

Data Model

Credit_Cards (PROTECTED, Requires valid JWT)

Property Name	Notes
id	The id of the credit card. Datastore automatically generates it. *Note: This is not the same as the credit card number
card_number	String. The credit card number, E.g., "1234567876543212".
type	String. Type of the credit card, E.g., Visa, Mastercard, Discover, etc.
expiration	String. Credit card expiration date (format: "MM/YY")
cvv_code	String. 3-digit cvv code of the credit card, E.g., "813"

Orders

Property Name	Notes
id	The id of the order. Datastore automatically generates it.
date_created	String. The date the order was created (format: "MM/DD/YY")
order_total	Float. The order total in dollar amount, E.g., 199.99
status	String. Current status of the order, E.g., "waiting for payment", "processing", "ready to ship", "shipped", etc.

Card_Order

Property Name	Notes
relationship_id	The id of the card_order relationship. Datastore automatically generates it.
card_id	Int. The id of the card that is associated with the given order_id
orders	Array/Int. Contains the ids of all the orders that have been added to the credit card with the given card_id

Create a Credit Card

Allows you to create a new instance of the credit card entity.

POST /credit_cards

Request

Path Parameters

None

Request Body

Required

MIME Type Accepted by Endpoint (from Request Body)

application/json

Request JSON Attributes

Name	Type	Description	Required?
card_number	String	The credit card number. **Must be unique across all credit cards.**	Yes
type	String	The type of the credit card, E.g., Visa, Mastercard, Discover, etc.	Yes
expiration	String	The credit card's expiration date (format: "MM/YY").	Yes
cvv_code	String	The credit card's 3-digit cvv code.	Yes

Request Body Example

```
{
        "card_number": "377789345222109",
        "type": "American Express",
        "expiration": "08/22",
        "cvv_code": "519"
}
```

Response

MIME Type Sent by Endpoint as Response

application/json

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Response Statuses

Outcome	Status Code	Notes

Success	201 Created	
Failure	400 Bad Request	If any of the following occur, the credit card must not be created, and a 400 status code must be returned: • If the request is missing any of the 4 required attributes • If the request contains an invalid attribute
Failure	401 Unauthorized	If any of the following occur, the credit card must not be created, and a 401 status code must be returned: • If the request contains an invalid JWT • If the JWT token is missing
Failure	403 Forbidden	If the card_number of the credit card is not unique across all credit cards, the credit card must not be created, and a 403 status code must be returned.
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the credit card must not be created, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

Response Examples

• The `self` attribute will contain the live link to the REST resource corresponding to this credit. In other words, this is the URL to get this newly created credit card. Note that this resource is protected. This is not stored in Datastore.

• The `owner` attribute will contain the unique identifier of the user that created this instance of the credit card entity. In other words, this ID represents the relationship between the user and the credit_card. This is not stored in Datastore.

• The `orders` attribute will contain the list of orders associated with this credit_card. In other words, this property represents the relationship between the credit_card and one or multiple orders. This is not stored in Datastore.

Success

Status: 201 Created

```
{
        "id": "abc123",
        "owner": "auth0|def432"
        "card_number": "377789345222109",
        "type": "American Express",
        "expiration": "08/22",
        "cvv_code": "519",
        "self": https://<my-app>/credit_cards/abc123,
        "orders": []
}
```

Failure

```
Status: 400 Bad Request


{
        "code": "Bad Request",
        "description": "Missing attribute. The request object is missing at least one of the required
                        attributes"
}
----------------------------------------------------------------------------------------------------------------------------
{
        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"
}
```

Failure

```
Status: 401 Unauthorized


{
        "code": "invalid_header",
        "description": "Invalid header. "Use an RS256 signed JWT Access Token"
}
----------------------------------------------------------------------------------------------------------------------------
{
        "code": "token_expired",
        "description": "token is expired"
}
----------------------------------------------------------------------------------------------------------------------------
{
        "code": "invalid_claims",
        "description": "incorrect claims, please check the audience and issuer"
}
----------------------------------------------------------------------------------------------------------------------------
{
```

```
            "code": "invalid_header",
            "description": "Unable to parse authentication token"
}
-----------------------------------------------------------------------------------------------------
{

            "code": "no_rsa_key",
            "description": "No RSA key in JWKS"

}
-----------------------------------------------------------------------------------------------------
{

            "code": "invalid_header",
            "description": "Invalid header. JWT Access Token is missing"
}
```

Failure

```
Status: 403 Forbidden

{

            "code": "Forbidden",
            "description": "Card number not unique. This credit card number already exists. Please enter a
                        different card number"
}
```

Failure

```
Status: 406 Not Acceptable

{

            "code": "Not Acceptable",
            "description": "Not acceptable. Only application/json content type supported"
}
```

Failure

```
Status: 415 Not Acceptable

{

            "code": "Unsupported Media Type",
            "description": "Unsupported Media Type. Please use application/json with your request"
}
```

List all Credit Cards

List all credit cards in the collection belonging to the user with a valid JWT. Implements pagination with a limit of 5 instances per page.

GET /credit_cards

Request

Path Parameters

None

Request Body

None

Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	*Note: This is a protected resource. Only credit cards belonging to the verified user are returned.
Failure	401 Unauthorized	If any of the following occur, the credit cards collection must not be returned, and a 401 status code must be returned instead: • If the request contains an invalid JWT • If the JWT token is missing
Failure	405 Method Not Allowed	If any other methods are used besides 'GET' or 'POST', the request must be rejected, and a 405 status code must be returned.
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the credit cards collection must not be returned, and a 406 status code must be returned instead.

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Response Examples

Success

```
Status: 200 OK


{
        "credit_cards": [
                {
                        "id": "abc123",
                        "owner": "auth0|def432"
                        "card_number": "377789345222109",
                        "type": "American Express",
                        "expiration": "08/22",
                        "cvv_code": "519",
                        "self": https://<my-app>/credit_cards/abc123,
                        "orders": []
                },
                {

                        "id": "xyz567",
                        "owner": "auth0|def432"
                        "card_number": "345678233111654",
                        "type": "American Express",
                        "expiration": "02/23",
                        "cvv_code": "211",
                        "self": https://<my-app>/credit_cards/xyz567,
                        "orders": []
                }
        ],
        "items_in_collection": 2


}
```

Failure

```
Status: 401 Unauthorized


{
        "code": "invalid_header",
        "description": "Invalid header. "Use an RS256 signed JWT Access Token"
}
---------------------------------------------------------------------------------------------------------------------
{

        "code": "token_expired",
        "description": "token is expired"
}
---------------------------------------------------------------------------------------------------------------------
```

```
{
        "code": "invalid_claims",
        "description": "incorrect claims, please check the audience and issuer"
}
-------------------------------------------------------------------------------------------
{
        "code": "invalid_header",
        "description": "Unable to parse authentication token"
}
-------------------------------------------------------------------------------------------
{
        "code": "no_rsa_key",
        "description": "No RSA key in JWKS"
}
-------------------------------------------------------------------------------------------
{
        "code": "invalid_header",
        "description": "Invalid header. JWT Access Token is missing"
}
```

Failure

```
Status: 405 Method Not Allowed

{
        "code": "method_not_allowed",
        "description": "Method not allowed. Cannot delete or make changes to the /credit_cards URL"
}
```

Failure

```
Status: 406 Not Acceptable

{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Edit a Credit Card

Allows the user with a verified JWT to edit one or more attributes of an existing credit card. Card number must remain unique.

```
PATCH /credit_cards/:card_id
```

Request
Path Parameters
card_id

Request Body
Required

MIME Type Accepted by Endpoint (from Request Body)
application/json

Request JSON Attributes

Name	Type	Description	Required?
card_number	String	The credit card number. **Must be unique across all credit cards.**	Only if no other attributes in request body.
type	String	The type of the credit card, E.g., Visa, Mastercard, Discover, etc.	Only if no other attributes in request body.
expiration	String	The credit card's expiration date (format: "MM/YY").	Only if no other attributes in request body.
cvv_code	String	The credit card's 3-digit cvv code.	Only if no other attributes in request body.

Request Body Example

```
{
   "cvv_code": "888",
}
```

Response

MIME Type Sent by Endpoint as Response
application/json

Response Statuses

Outcome	Status Code	Notes
Success	200	***Note:** **Only the user that created this credit card instance is able to modify it.**
Failure	400 Bad Request	If either of the following occur, the credit card must not be modified, and a 400 status code must be returned: • If the request is missing all of the attributes. In other words, if no valid attribute is in the request body. • If the request contains an invalid attribute.
Failure	401 Unauthorized	If any of the following occur, the credit card must not be modified, and a 401 status code must be returned: • If the request contains an invalid JWT • If the JWT token is missing
Failure	403 Forbidden	If any of the following occur, the credit card must not be modified, and a 403 status code must be returned: • If the card_number of the credit card is not unique across all credit cards • If the user attempting to modify the credit card is not the owner
Failure	404 Not Found	If the card_id does not exist in the collection
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the credit card must not be modified, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

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Response Examples

Success

```
Status: 200 OK


{

        "id": "abc123",
        "owner": "auth0|def432"
        "card_number": "377789345222109",
        "type": "American Express",
        "expiration": "08/22",
        "cvv_code": "888",
        "self": https://<my-app>/credit_cards/abc123,
        "orders": []

}
```

Failure

```
Status: 400 Bad Request


{

        "code": "Bad Request",
        "description": "Bad request. No valid attributes to modify"

}
--------------------------------------------------------------------------------------------------------------------------
{

        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"

}
```

Failure

```
Status: 401 Unauthorized


{

        "code": "invalid_header",
        "description": "Invalid header. "Use an RS256 signed JWT Access Token"

}
-----------------------------------------------------------------------------------------------------------------------
---
{

        "code": "token_expired",
        "description": "token is expired"

}
-----------------------------------------------------------------------------------------------------------------------
```

```
{
        "code": "invalid_claims",
        "description": "incorrect claims, please check the audience and issuer"
}
-----------------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Unable to parse authentication token"
}
-----------------------------------------------------------------------------------------------------------
---
{
        "code": "no_rsa_key",
        "description": "No RSA key in JWKS"
}
-----------------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Invalid header. JWT Access Token is missing"
}
```

Failure

Status: 403 Forbidden

```
{
        "code": "Forbidden",
        "description": "Card number not unique. This credit card number already exists. Please enter a
                        different card number"
}
-----------------------------------------------------------------------------------------------------------
{
        "code": "Forbidden",
        "description": "Forbidden. Only the owner of this credit card is authorized to edit it."
}
```

Failure

Status: 404 Not Found

```
{
        "code": "Not Found",
        "description": "Credit card not found. No credit_card with this credit_card_id exists"
```

Failure

Status: 406 Not Acceptable

```
{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Failure

Status: 415 Not Acceptable

```
{
        "code": "Unsupported Media Type",
        "description": "Unsupported Media Type. Please use application/json with your request"
}
```

Replace a Credit Card

Allows the authorized user to replace an existing credit card, except for its id. Name must remain unique.

PUT /credit_cards/:card_id

Request

Path Parameters

card_id

Request Body

Required

MIME Type Accepted by Endpoint (from Request Body)

application/json

Request JSON Attributes

Name	Type	Description	Required?
card_number	String	The credit card number. **Must be unique across all credit cards.**	Yes
type	String	The type of the credit card, E.g., Visa, Mastercard, Discover, etc.	Yes
expiration	String	The credit card's expiration date (format: "MM/YY").	Yes
cvv_code	String	The credit card's 3-digit cvv code.	Yes

Request Body Example

```
{
        "card_number": "4321567898762345",
        "type": "Visa",
        "expiration": "11/23",
        "cvv_code": "217"
}
```

Response

MIME Type Sent by Endpoint as Response (After Redirection)
application/json

Response Statuses

Outcome	Status Code	Notes
Success	200	*Note: **Only the user that created this credit card instance is able to replace it.**
Failure	400 Bad Request	If either of the following occur, the credit card must not be replaced, and a 400 status code must be returned: • If the request is missing any of the 4 required attributes • If the request contains an invalid attribute.
Failure	401 Unauthorized	If any of the following occur, the credit card must not be replaced, and a 401 status code must be returned: • If the request contains an invalid JWT • If the JWT token is missing
Failure	403 Forbidden	If any of the following occur, the credit card must not be replaced, and a 403 status code must be returned: • If the card_number of the credit card is not unique across all credit cards • If the user attempting to replace the credit card is not the owner
Failure	404 Not Found	If the card_id does not exist in the collection
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the credit card must not be replaced, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

Response Examples

Success

```
Status: 200 OK


{
        "id": "abc123",
        "owner": "auth0|def432"
        "card_number": "4321567898762345",
        "type": "Visa",
        "expiration": "11/23",
        "cvv_code": "217",
        "self": https://<my-app>/credit_cards/abc123,
        "orders": []
}
```

Failure

```
Status: 400 Bad Request


{
        "code": "Bad Request",
        "description": "Missing attribute. The request object is missing at least one of the required
                        attributes"
}
--------------------------------------------------------------------------------------------------------------------
{
        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"
}
```

Failure

```
Status: 401 Unauthorized


{
        "code": "invalid_header",
        "description": "Invalid header. "Use an RS256 signed JWT Access Token"
}
-----------------------------------------------------------------------------------------------------------------------
---
{
        "code": "token_expired",
        "description": "token is expired"
}
-----------------------------------------------------------------------------------------------------------------------
```

```
{
        "code": "invalid_claims",
        "description": "incorrect claims, please check the audience and issuer"
}
---------------------------------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Unable to parse authentication token"
}
---------------------------------------------------------------------------------------------------------------------------
---
{
        "code": "no_rsa_key",
        "description": "No RSA key in JWKS"
}
---------------------------------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Invalid header. JWT Access Token is missing"
}
```

Failure

```
Status: 403 Forbidden

{
        "code": "Forbidden",
        "description": "Card number not unique. This credit card number already exists. Please enter a
                        different card number"
}
---------------------------------------------------------------------------------------------------------------------------
{
        "code": "Forbidden",
        "description": "Forbidden. Only the owner of this credit card is authorized to edit it."
}
```

Failure

```
Status: 404 Not Found

{
        "code": "Not Found",
        "description": "Credit card not found. No credit_card with this credit_card_id exists"
```

Failure

Status: 406 Not Acceptable

{

       "code": "Not Acceptable",

       "description": "Not acceptable. Only application/json content type supported"

}

Failure

Status: 415 Not Acceptable

{

       "code": "Unsupported Media Type",

       "description": "Unsupported Media Type. Please use application/json with your request"

}

Get a Credit Card

Allows the authorized user to get a credit card with the given card_id.

```
GET /credit_cards/:card_id
```

Request

Path Parameters

card_id

Request Body

None

Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	***Note: Only the user that created this credit card instance is able to view it.**
Failure	401 Unauthorized	If any of the following occur, the credit card must not be returned, and a 401 status code must be returned instead: • If the request contains an invalid JWT • If the JWT token is missing
Failure	403 Forbidden	If the user is not authorized to view the protected credit_card
Failure	404 Not Found	card_id does not exist in the collection
Failure	406 Not Acceptable	Only text/html or application/json content types supported

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Response Examples

Success

Status: 200 OK

{

     "id": "abc123",
     "owner": "auth0|def432"
     "card_number": "4321567898762345",
     "type": "Visa",
     "expiration": "11/23",
     "cvv_code": "217",
     "self": https://<my-app>/credit_cards/abc123,
     "orders": []

}

Failure

Status: 401 Unauthorized

{

     "code": "invalid_header",
     "description": "Invalid header. "Use an RS256 signed JWT Access Token"

}

{

     "code": "token_expired",
     "description": "token is expired"

}

{

     "code": "invalid_claims",
     "description": "incorrect claims, please check the audience and issuer"

```
}
---------------------------------------------------------------------------------------------------------------
 ---
 {
        "code": "invalid_header",
        "description": "Unable to parse authentication token"
 }
---------------------------------------------------------------------------------------------------------------
 ---
 {

        "code": "no_rsa_key",
        "description": "No RSA key in JWKS"

 }
---------------------------------------------------------------------------------------------------------------
 ---
 {

        "code": "invalid_header",
        "description": "Invalid header. JWT Access Token is missing"

}
```

Failure

```
Status: 403 Forbidden


{

        "code": "Forbidden",
        "description": "Forbidden. Only the owner of this credit card is authorized to view it."

}
```

Failure

```
Status: 404 Not Found


{

        "code": "Not Found",
        "description": "Credit card not found. No credit_card with this credit_card_id exists"
```

Failure

```
Status: 406 Not Acceptable


{

        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"

}
```

Delete a Credit Card

Allows the authorized user to delete a credit card.

DELETE /credit_cards/:card_id

Request
Path Parameters
card_id

Request Body
None

Response
No body

Response Body Format

Success:

No body

Failure:

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	*Note: Only the user that created this credit card instance is able to delete it.
Failure	401 Unauthorized	If any of the following occur, the credit card must not be deleted, and a 401 status code must be returned instead: • If the request contains an invalid JWT • If the JWT token is missing
Failure	403 Forbidden	If the user is not authorized to delete the protected credit_card
Failure	404 Not Found	No credit card with this card_id exists

Response Examples

Status: 204 No Content

Status: 401 Unauthorized

```
{
        "code": "invalid_header",
        "description": "Invalid header. "Use an RS256 signed JWT Access Token"
}
-------------------------------------------------------------------------------------------------
---
{
        "code": "token_expired",
        "description": "token is expired"
}
-------------------------------------------------------------------------------------------------
{
        "code": "invalid_claims",
        "description": "incorrect claims, please check the audience and issuer"
}
-------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Unable to parse authentication token"
}
-------------------------------------------------------------------------------------------------
---
{
        "code": "no_rsa_key",
        "description": "No RSA key in JWKS"
}
-------------------------------------------------------------------------------------------------
---
{
        "code": "invalid_header",
        "description": "Invalid header. JWT Access Token is missing"
}
```
.
.

Failure

Status: 403 Forbidden

```
{
        "code": "Forbidden",
        "description": "Forbidden. Only the owner of this credit card is authorized to delete it."
}
```

Failure

Status: 404 Not Found

```
{
        "code": "Not Found",
        "description": "Credit card not found. No credit_card with this credit_card_id exists"
}
```

Create an Order

Allows you to create a new instance of the order entity.

POST /orders

Request
Path Parameters
None

Request Body
Required

MIME Type Accepted by Endpoint (from Request Body)
application/json

Request JSON Attributes

Name	Type	Description	Required?
date_created	String	The date the order was created (format: "MM/DD/YY")	Yes
order_total	Float	The order total in dollar amount, E.g., 199.99	Yes
status	String	Current status of the order, E.g., "waiting for payment", "processing", "ready to ship", "shipped", etc.	Yes

Request Body Example

```
{
        "date_created": "12/20/20",
        "order_total": 257.25,
        "status": "shipped"
}
```

Response
MIME Type Sent by Endpoint as Response
application/json
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Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	If any of the following occur, the credit card must not be created, and a 400 status code must be returned: • If the request is missing any of the 3 required attributes • If the request contains an invalid attribute
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the credit card must not be created, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

Response Examples

- The `self` attribute will contain the live link to the REST resource corresponding to this order. In other words, this is the URL to get this newly created order. This is not stored in Datastore.
- The `credit_card_id` attribute will contain credit card associated with this order. In other words, this property represents the relationship between the an order and a credit card. This is not stored in Datastore.

Success

Status: 201 Created

{

    "date_created": "12/20/20",

    "order_total": 257.25,

    "status": "shipped",

    "id": ghi333,

    "self": "https://<my-app>/orders/ghi333",

    "credit_card_id": null

}

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Failure

```
Status: 400 Bad Request


{
        "code": "Bad Request",
        "description": "Missing attribute. The request object is missing at least one of the required
                        attributes"
}
-----------------------------------------------------------------------------------------------------------------------
{
        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"
}
```

Failure

```
Status: 406 Not Acceptable


{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Failure

```
Status: 415 Not Acceptable


{
        "code": "Unsupported Media Type",
        "description": "Unsupported Media Type. Please use application/json with your request"
}
```

List all Orders

List all orders in the collection. Implements pagination with a limit of 5 instances per page.

GET /orders

Request

Path Parameters

None

Request Body

None

Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	405 Method Not Allowed	If any other methods are used besides 'GET' or 'POST', the request must be rejected, and a 405 status code must be returned.
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the orders collection must not be returned, and a 406 status code must be returned instead.

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Response Examples

Success

```
Status: 200 OK

{
   "orders": [
     {
        "date_created": "12/20/20",
        "status": "shipped",
        "order_total": 257.25,
        "id": ghi333,
        "self": "https://<my-app>/orders/ghi333",
        "credit_card_id": null
     },
     {
        "date_created": "06/04/21",
        "status": "waiting for payment",
        "order_total": 19.99,
        "id": lmn009,
        "self": "https://<my-app>/orders/lmn009",
        "credit_card_id": null
     }
   ],
   "items_in_collection": 2

}
```

Failure

```
Status: 405 Method Not Allowed

{
        "code": "method_not_allowed",
        "description": "Method not allowed. Cannot delete or make changes to the /credit_cards URL"
}
```

Failure

```
Status: 406 Not Acceptable

{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Edit an Order

Edit one or more attributes of an existing order.

```
PATCH /orders/:order_id
```

Request
Path Parameters
order_id

Request Body
Required

MIME Type Accepted by Endpoint (from Request Body)
application/json

Request JSON Attributes

Name	Type	Description	Required?
date_created	String	The date the order was created (format: "MM/DD/YY")	Only if no other attributes in request body.
order_total	Float	The order total in dollar amount, E.g., 199.99	Only if no other attributes in request body.
status	String	Current status of the order, E.g., "waiting for payment", "processing", "ready to ship", "shipped", etc.	Only if no other attributes in request body.

Request Body Example

```
{
    "order_total ": 26.99,
}
```

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Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200	
Failure	400 Bad Request	If either of the following occur, the order must not be modified, and a 400 status code must be returned: • If the request is missing all of the attributes. In other words, if no valid attribute is in the request body. • If the request contains an invalid attribute.
Failure	404 Not Found	If the order_id does not exist in the collection
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the order must not be modified, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

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Response Examples

Success

```
Status: 200 OK

{
        "date_created": "12/20/20",
        "status": "shipped",
        "order_total": 26.99,
        "id": ghi333,
        "self": "https://<my-app>/orders/ghi333",
        "credit_card_id": null
}
```

Failure

```
Status: 400 Bad Request


{
        "code": "Bad Request",
        "description": "Bad request. No valid attributes to modify"
}
--------------------------------------------------------------------------------------------------------------------------
{
        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"
}
```

Failure

```
Status: 404 Not Found


{
        "code": "Not Found",
        "description": "Order not found. No order with this order_id exists"
}
```

Failure

```
Status: 406 Not Acceptable


{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Failure

```
Status: 415 Not Acceptable


{
        "code": "Unsupported Media Type",
        "description": "Unsupported Media Type. Please use application/json with your request"
}
```

Replace an Order

Replace all attributes of an existing order.

```
PUT /orders/:order_id
```

Request

Path Parameters

order_id

Request Body

Required

MIME Type Accepted by Endpoint (from Request Body)

application/json

Request JSON Attributes

Name	Type	Description	Required?
date_created	String	The date the order was created (format: "MM/DD/YY")	Yes
order_total	Float	The order total in dollar amount, E.g., 199.99	Yes
status	String	Current status of the order, E.g., "waiting for payment", "processing", "ready to ship", "shipped", etc.	Yes

Request Body Example

```
{

        "date_created": "02/25/21",

        "status": "ready to ship",

        "order_total": 159.99,

}
```

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Response

MIME Type Sent by Endpoint as Response (After Redirection)
application/json

Response Statuses

Outcome	Status Code	Notes
Success	200	
Failure	400 Bad Request	If either of the following occur, the order must not be replaced, and a 400 status code must be returned: • If the request is missing any of the 3 required attributes • If the request contains an invalid attribute.
Failure	404 Not Found	If the order_id does not exist in the collection
Failure	406 Not Acceptable	If the request does not include 'application/json' in the Accept header, the order must not be replaced, and a 406 status code must be returned.
Failure	415 Unsupported Media Type	Unsupported media type sent. Please use application/json with your request

Response Examples

Success

```
Status: 200 OK

{
     "date_created": "02/25/21",
     "status": "ready to ship",
     "order_total": 159.99,
     "id": ghi333,
     "self": "https://<my-app>/orders/ghi333",
     "credit_card_id": null
}
```
.
.

Failure

Status: 400 Bad Request

```
 {
        "code": "Bad Request",
        "description": "Missing attribute. The request object is missing at least one of the required
                    attributes"
}
-----------------------------------------------------------------------------------------------------------------------------
{
        "code": "Bad Request",
        "description": "Invalid attribute. The request contains an invalid attribute"
}
```

Failure

Status: 404 Not Found

```
{
        "code": "Not Found",
        "description": "Order not found. No order with this order_id exists"
```

Failure

Status: 406 Not Acceptable

```
{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Failure

Status: 415 Not Acceptable

```
{
        "code": "Unsupported Media Type",
        "description": "Unsupported Media Type. Please use application/json with your request"
}
```

Get an Order

Get an order with the given order_id.

```
GET /orders/:order_id
```

Request

Path Parameters

order_id

Request Body

None

Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	order_id does not exist in the collection
Failure	406 Not Acceptable	Only text/html or application/json content types supported

Response Examples

Success

```
Status: 200 OK

{
      "date_created": "02/25/21",
      "status": "ready to ship",
      "order_total": 159.99,
      "id": ghi333,
      "self": "https://<my-app>/orders/ghi333",
      "credit_card_id": null
}
```

.

Failure

Status: 404 Not Found

```
{
        "code": "Not Found",
        "description": "Order not found. No order with this order_id exists"
```

Failure

Status: 406 Not Acceptable

```
{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Delete an Order

Delete an existing order.

DELETE /orders/:order_id

Request

Path Parameters

order_id

Request Body

None

Response

No body

Response Body Format

Success:

No body

Failure:

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No order with this order_id exists

Response Examples

Success

Status: 204 No Content

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Failure

Status: 404 Not Found

```
{
        "code": "Not Found",
        "description": "Order not found. No order with this order_id exists"
}
```

Add Order to a Credit Card

An order is added to a credit card, creating a relationship between the two entities.

PUT /credit_cards/:card_id/orders/:order_id

Request

Path Parameters
card_id

order_id

Request Body

None

Response

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	Succeeds only if a credit card exists with this card_id, an order exists with this order_id, and the order is not already on a credit card.
Failure	403 Forbidden	If the order is already on a credit card.
Failure	404 Not Found	The specified credit card and/or order does not exist.
Failure	406 Not Acceptable	Only text/html or application/json content types supported

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Response Examples

Success

Status: 200 OK

```
{

   "card_id": abc123,

   "orders": [

      ghi333

   ],

   "relationship_id": aaa999,

   "self": http://localhost:8080/credit_cards/abc123/orders/ghi333

}
```

Failure

Status: 403 Forbidden

```
{

        "code": "Forbidden",

        "description": "Forbidden. This order has already been added to an existing credit card"

}
```

Failure

Status: 404 Not Found

```
{

        "code": "Not Found",

        "description": "Not found. The specified credit card and/or order does not exist"

}
```

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Status: 406 Not Acceptable

```
{
        "code": "Not Acceptable",
        "description": "Not acceptable. Only application/json content type supported"
}
```

Comment

- An order cannot be assigned to multiple credit cards.

Remove Order from a Credit Card

An order is removed from a credit card (the relationship between the two is deleted without deleting either the credit card or the order).

```
DELETE /credit_cards/:card_id/orders/:order_id
```

Request

Path Parameters

card_id

order_id

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure:

MIME Type Sent by Endpoint as Response

application/json

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if a credit card exists with this card_id, an order exists with this order_id and this order is on this credit card.

Failure	404 Not Found	No load with this order_id is on a credit card with this card_id.

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found
 	
{
 	
    "code": "Not Found",
 	
    "description": "Not found. The specified credit card and/or order does not exist"
 	
}