Portfolio Project

CS 493: Cloud Application Development

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Oregon State University

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URL: https://portfolio-johalj.uw.r.appspot.com/

URL for account creation/login: https://portfolio-johalj.uw.r.appspot.com/profile

Data Model

The app stores three kinds of entities in Datastore: Users, Trucks, and Loads. Users and Trucks are related since each Truck has an 'owner' property which corresponds to the 'sub' property of a User. Users and Trucks have a one-to-many relationship. A single User can own many Trucks, but a Truck can only have one owner. Trucks and Loads are also related via a one-to-many relationship. A Truck can contain many Loads while a Load can only be on a single Truck.

Users

Property	Data Type	Notes	Example
id	Integer	The unique ID of the user (automatically generated by Datastore).	
name	String	The username of the user.	"admin@westerntrucking.com"
sub	String	The complete subject claim of the user's JWT.	"auth0|629b81bdcd1f83006faceb4d"

Note: both the 'id' and 'sub' properties are unique identifiers, but the 'id' property is irrelevant to this application. The 'sub' property is used to identify users and it links the Users kind to the Trucks kind.

Trucks

Property	Data Type	Notes	Example	Required?	Valid Request Parameters
id	Integer	The unique ID of the truck. Datastore automatically generates it.	N/A	No	N/A
owner	String	The sub of the user that owns the truck.	"auth0|629b81bdcd1f83006faceb4d"	No	N/A
truck_vin	String	The vehicle identification number of the truck.	"1FUJBGAN04HM86987"	Yes	17-character string (only alphanumeric characters)
trailer_vin	String	The vehicle identification number of trailer.	"1B3ES56C55D137449"	Yes	17-character string (only alphanumeric characters)
truck_model	String	The model of the truck.	"Kenworth T680"	Yes	Maximum 50 characters (alphanumeric & spaces only)
trailer_type	String	The type of the trailer.	"Flatbed"	Yes	Maximum 20 characters

Property	Data Type	Notes	Example	Required?	Valid Request Parameters
					(alphanumeric & spaces only)
trailer_capacity	Integer	The maximum weight (lbs) a trailer can hold.	45000	Yes	An integer between 1 and 100,000
loads	Array	A list of the loads on the truck.	["123", "456", "789"]	No	N/A

Loads

Property	Data Type	Notes	Example	Required?	Valid Request Parameters
id	Integer	The unique ID of the load. Datastore automatically generates it.		No	N/A
carrier	String or Null	If the load is on a truck, then *carrier* is the id of the truck. Otherwise, it is null.	"5665248644169728"	No	N/A
vendor	String	The supplier of the item.	"Driscoll's"	Yes	Maximum 50 characters (letters, apostrophes, and spaces only)
item	String	The items in the load.	"Organic strawberries"	Yes	Maximum 50 characters (letters and spaces only)
quantity	Integer	The number of cases of the item.	240	Yes	An integer between 1 and 100,000
weight	Floating point number	The weight (lbs) of the load.	465.75	Yes	A number between 1 and 100,000

View all Users

List all the users.

GET /users

Protected?

No.

Request

Path Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The response contains a property "data" which is a list of all the users in the database.
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "data": [
    {
      "sub": "auth0|629b9c27337c6c00708f13d5",
      "name": "admin@cstruckingllc.com",
      "id": "5995848483733504"
    },
    {
      "sub": "auth0|629bec02cd1f83006facf42b",
      "name": "dev1924@dev1924.com",
      "id": "6246730945265664"
    },
    {
      "name": "admin@westerntrucking.com",
      "sub": "auth0|629b81bdcd1f83006faceb4d",
      "id": "6264616665481216"
    }
  ]
}
```

Failure

```
Status: 406 Not Acceptable
{
  "Error": "This application only supports JSON responses"
}
```

Create a Truck

Allows you to create a new truck.

POST /trucks

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
truck_vin	The vehicle identification number of the truck.	Yes
trailer_vin	The vehicle identification number of the trailer.	Yes
truck_model	The model of the truck (E.g. "Kenworth T680").	Yes
trailer_type	The model of the trailer (E.g. "Flatbed").	Yes
trailer_capacity	The maximum weight (lbs) a trailer can hold (E.g. 45000).	Yes

Request Body Example

```json
{
    "truck_vin": "1FUJBGAN04HM86987",
    "trailer_vin": "1B3ES56C55D137449",
    "truck_model": "Kenworth T680",
    "trailer_type": "Refrigerated",
    "trailer_capacity": 45000
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	Extraneous attributes will be ignored.
Failure	400 Bad Request	The request is missing any of the required attributes.
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Success

Status: 201 Created

```json
{
  "trailer_capacity": 45000,
  "trailer_vin": "1B3ES56C55D137449",
  "loads": [],
  "trailer_type": "Refrigerated",
  "truck_vin": "1FUJBGAN04HM86987",
  "owner": "auth0|629b81bdcd1f83006faceb4d",
  "truck_model": "Kenworth T680",
  "id": "5284414665785344",
  "self": "http://127.0.0.1:8080/trucks/5284414665785344"
}
```

Failure

Status: 400 Bad Request

```json
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 401 Unauthorized Error

```json
{
  "Error": "Invalid token."
}
```

Status: 415 Unsupported Media Type

```json
{
  "Error": "Server only accepts application/json data."
}
```

View a Truck

Allows you to get an existing truck

```
GET /truck/:truck_id
```

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
truck_id	ID of the truck

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the correct owner of the truck.
Failure	404 Not Found	No truck with this truck_id exists
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "truck_vin": "1FUJBGAN04HM86987",
  "loads": [
    {
      "id": "6523730297618432",
      "self": "http://127.0.0.1:8080/loads/6523730297618432"
    }
  ],
  "trailer_capacity": 45000,
  "trailer_vin": "1B3ES56C55D137449",
  "truck_model": "Kenworth T680",
  "trailer_type": "Refrigerated",
  "owner": "auth0|629b81bdcd1f83006faceb4d",
  "id": "5284414665785344",
  "self": "http://127.0.0.1:8080/trucks/5284414665785344"
```

```
}
```

Failure

Status: 401 Unauthorized
```
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden
```
{
  "Error": "You do not have access to this truck"
}
```

Status: 404 Not Found
```
{
  "Error": "No truck with this truck_id exists"
}
```

Status: 406 Not Acceptable
```
{
  "Error": "This application only supports JSON responses"
}
```

View all Trucks

List all the trucks owned by a particular owner.

GET /trucks

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The response contains a property "data" which is a list of all the trucks owned by the specified owner.
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Response Examples

Success

```
Status: 200 OK
{
  "data": [
    {
      "trailer_type": "Refrigerated",
      "truck_model": "Freightliner M2 106",
      "owner": "auth0|629b81bdcd1f83006faceb4d",
      "loads": [],
      "truck_vin": "JH4KA4576KC031014",
      "trailer_vin": "JH4DA3350HS000229",
      "trailer_capacity": 40000,
      "id": "4824921112838144",
      "self": "http://127.0.0.1:8080/trucks/4824921112838144"
    },
    {
      "trailer_vin": "1B3ES56C55D137449",
      "trailer_capacity": 45000,
      "truck_model": "Kenworth T680",
      "owner": "auth0|629b81bdcd1f83006faceb4d",
```

```json
    "loads": [
     {
       "id": "6136585972088832",
       "self": "http://127.0.0.1:8080/loads/6136585972088832"
     }
    ],
    "truck_vin": "1FUJBGAN04HM86987",
    "trailer_type": "Refrigerated",
    "id": "5010686065246208",
    "self": "http://127.0.0.1:8080/trucks/5010686065246208"
  },
  {
    "truck_vin": "1C3BF66P0GX570598",
    "truck_model": "Peterbilt 389",
    "loads": [],
    "trailer_vin": "LM4AC113061105688",
    "trailer_type": "Refrigerated",
    "trailer_capacity": 45000,
    "owner": "auth0|629b81bdcd1f83006faceb4d",
    "id": "5566276323770368",
    "self": "http://127.0.0.1:8080/trucks/5566276323770368"
  },
  {
    "owner": "auth0|629b81bdcd1f83006faceb4d",
    "truck_model": "Kenworth T800",
    "trailer_type": "Flatbed",
    "truck_vin": "1FABP21B4CK165368",
    "trailer_capacity": 45000,
    "trailer_vin": "3N1BC13E99L480541",
    "loads": [],
    "id": "6101517832552448",
    "self": "http://127.0.0.1:8080/trucks/6101517832552448"
  },
  {
    "owner": "auth0|629b81bdcd1f83006faceb4d",
    "loads": [],
    "truck_model": "Freightliner Cascadia",
    "trailer_type": "Dry Van",
    "trailer_capacity": 20000,
    "trailer_vin": "1G4HP54KX24151104",
    "truck_vin": "JTJZB1BA8A2400307",
    "id": "6129226277191680",
    "self": "http://127.0.0.1:8080/trucks/6129226277191680"
  },
  {
```

```
    "truck_vin": "1GCCS1442W8181753",
    "trailer_capacity": 30000,
    "loads": [
      {
        "id": "6732143317221376",
        "self": "http://127.0.0.1:8080/loads/6732143317221376"
      },
      {
        "id": "6128839595917312",
        "self": "http://127.0.0.1:8080/loads/6128839595917312"
      }
    ],
    "trailer_vin": "JH4DA9340PS000417",
    "owner": "auth0|629b81bdcd1f83006faceb4d",
    "trailer_type": "Flatbed",
    "truck_model": "Mack Anthem",
    "id": "6232295996391424",
    "self": "http://127.0.0.1:8080/trucks/6232295996391424"
  }
 ]
}
```

Failure

Status: 401 Unauthorized

```
{
  "Error": "Invalid token."
}
```

Status: 406 Not Acceptable

```
{
  "Error": "This application only supports JSON responses"
}
```

Edit a Truck (Put)

Allows you to overwrite all attributes of a truck, except 'owner' and loads.'

Side effect: 'loads' will be reset to an empty array and any load entity that was previously on the truck will no longer have a carrier.

PUT /trucks/:truck_id

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
truck_id	ID of the truck

Request Body

Required

Request Body Format

application/json

Request JSON Attributes

Name	Description	Required?
truck_vin	The vehicle identification number of the truck.	Yes
trailer_vin	The vehicle identification number of the trailer.	Yes
truck_model	The model of the truck (E.g. "Kenworth T680").	Yes
trailer_type	The model of the trailer (E.g. "Flatbed").	Yes
trailer_capacity	The maximum weight (lbs) a trailer can hold (E.g. 45000).	Yes

Request Body Example

```json
{
  "truck_vin": "1GCCS1442W8181753",
  "trailer_vin": "JH4DA9340PS000417",
  "truck_model": "Mack Anthem",
  "trailer_type": "Dry Van",
  "trailer_capacity": 28000
}
```

Response

Response Body Format

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The input *can* contain extraneous attributes. Any attributes aside from the required attributes listed above will be ignored.
Failure	400 Bad Request	The request is missing any of the required attributes.

Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the correct owner of the truck.
Failure	404 Not Found	No truck with this truck_id exists.
Failure	406 Not Acceptable	The client wants a media type other than JSON.
Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Success

Status: 200 OK
```
{
  "trailer_type": "Dry Van",
  "truck_vin": "1GCCS1442W8181753",
  "truck_model": "Mack Anthem",
  "loads": [],
  "owner": "auth0|629b81bdcd1f83006faceb4d",
  "trailer_vin": "JH4DA9340PS000417",
  "trailer_capacity": 28000,
  "id": "6124252570845184",
  "self": "http://127.0.0.1:8080/trucks/6124252570845184"
}
```

Failure

Status: 400 Bad Request
```
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 401 Unauthorized
```
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden
```
{
  "Error": "You do not have access to this truck"
}
```

Status: 404 Not Found
```
{
  "Error": "No truck with this truck_id exists"
}
```

Status: 406 Not Acceptable

```json
{
  "Error": "This application only supports JSON responses"
}
```

Status: 415 Unsupported Media Type

```json
{
  "Error": "Server only accepts application/json data."
}
```

Edit a Truck (Patch)

Allows you to overwrite any subset of attributes of a truck, excluding 'loads' and 'owner.' The attributes that weren't explicitly overwritten in the request will remain unchanged.

Note: the relationship between a truck and its loads will remain unchanged.

PATCH /trucks/:truck_id

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
truck_id	ID of the truck

Request Body

Required

Request Body Format

application/json

Request JSON Attributes

Name	Description	Required?
truck_vin	The vehicle identification number of the truck.	No
trailer_vin	The vehicle identification number of the trailer.	No
truck_model	The model of the truck (E.g. "Kenworth T680").	No
trailer_type	The model of the trailer (E.g. "Flatbed").	No
trailer_capacity	The maximum weight (lbs) a trailer can hold (E.g. 45000).	No

Request Body Example

```
{
  "truck_vin": "1GTEC14W1YZ246726",
  "trailer_vin": "1J4RR5GT2BC512008"
}
```

Response

Response Body Format

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The input *can* contain extraneous attributes. Any attributes aside from the required attributes listed above will be ignored.
Failure	400 Bad Request	The request doesn't contain at least one of the required attributes.
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the

		correct owner of the truck.
Failure	404 Not Found	No truck with this truck_id exists.
Failure	406 Not Acceptable	The client wants a media type other than JSON.
Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "trailer_type": "Refrigerated",
  "owner": "auth0|629b81bdcd1f83006faceb4d",
  "loads": [
    {
      "id": "5563792926703616",
      "self": "http://127.0.0.1:8080/loads/5563792926703616"
    },
    {
      "id": "6689692833546240",
      "self": "http://127.0.0.1:8080/loads/6689692833546240"
    }
  ],
  "truck_model": "Kenworth T680",
  "trailer_vin": "1J4RR5GT2BC512008",
  "trailer_capacity": 45000,
  "truck_vin": "1GTEC14W1YZ246726",
  "id": "4971907073966080",
  "self": "http://127.0.0.1:8080/trucks/4971907073966080"
}
```

Failure

Status: 400 Bad Request

```json
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 401 Unauthorized

```json
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden

```json
{
  "Error": "You do not have access to this truck"
}
```

Status: 404 Not Found
MIME type: application/json

```json
{
  "Error": "No truck with this truck_id exists"
}
```

Status: 406 Not Acceptable

```json
{
  "Error": "This application only supports JSON responses"
}
```

Status: 415 Unsupported Media Type
MIME type: application/json

```json
{
  "Error": "Server only accepts application/json data."
}
```

Delete a Truck

Allows you to delete a truck.

Side effect: If the truck contains a load, the deletion of the truck will update the load entity so that it no longer belongs to a truck.

DELETE /trucks/:truck_id

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
truck_id	ID of the truck

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the correct owner of the truck.
Failure	404 Not Found	No truck with this truck_id exists

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized

```
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden

```
{
  "Error": "You do not have access to this truck"
}
```

Status: 404 Not Found

```
{
  "Error": "No truck with this truck_id exists"
}
```

Delete All Trucks

Forbidden endpoint

DELETE /trucks

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

None

Request Body

None

Response

No body

Response Body MIME Type

application/json

Response Statuses

Outcome	Status Code	Notes
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	405 Not Supported	This endpoint is not supported

Response Examples

Failure

Status: 401 Unauthorized

```
{
  "Error": "Invalid token."
}
```

Status: 405 Not Supported

```
{
  "Error": "This endpoint is not supported"
}
```

Create a Load

Allows you to create a new load.

POST /loads

Protected?

No.

Request

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
item	The supplier of the item	Yes
quantity	The items in the load.	Yes
vendor	The number of cases of the item	Yes
weight	The weight (lbs) of the load	Yes

Request Body Example

```
{
  "item": "Organic strawberries",
  "quantity": 240,
  "vendor": "Driscoll's",
  "weight": 2160
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	The input *can* contain extraneous attributes. Any attributes aside from the required attributes listed above will be ignored.
Failure	400 Bad Request	The request is missing any of the required attributes.
Failure	406 Not Acceptable	The client wants a media type other than JSON.
Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Status: 201 Created

```
{
  "id": "6195449035751424",
  "item": "Organic strawberries",
  "quantity": 240,
  "vendor": "Driscoll's",
  "weight": 2160,
  "carrier": null,
  "self": "http://127.0.0.1:8080/loads/6195449035751424"
}
```

Failure

Status: 400 Bad Request

```
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 406 Not Acceptable

```
{
  "Error": "This application only supports JSON responses"
}
```

Status: 415 Unsupported Media Type

```
{
  "Error": "Server only accepts application/json data."
}
```

View a Load

Allows you to get an existing load.

GET /loads/:load_id

Protected?

No.

Request

Path Parameters

Name	Description
load_id	ID of the load

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No load with this load_id exists
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "carrier": {
   "id": "6687202524266496",
   "self": "http://127.0.0.1:8080/trucks/6687202524266496"
  },
  "weight": 1454,
  "quantity": 288,
  "item": "Blueberries",
  "vendor": "Driscoll's",
  "id": "5847751300481024",
  "self": "http://127.0.0.1:8080/loads/5847751300481024"
}
```

Failure

Status: 404 Not Found

```json
{
  "Error": "No load with this load_id exists"
}
```

Status: 406 Not Acceptable

```
{
  "Error": "This application only supports JSON responses"
}
```

View all Loads

List all the loads.

GET /loads

Protected?

No.

Request

Path Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The response contains a property "data" which is a list of all the loads in the Load kind.
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "data": [
    {
      "carrier": null,
      "quantity": 432,
      "item": "Raspberries",
      "vendor": "Driscoll's",
      "weight": 2462.4,
      "id": "4870064809443328",
      "self": "http://127.0.0.1:8080/loads/4870064809443328"
    },
    {
      "weight": 2160,
      "carrier": null,
      "vendor": "Driscoll's",
      "quantity": 240,
      "item": "Organic strawberries",
      "id": "5110132711096320",
      "self": "http://127.0.0.1:8080/loads/5110132711096320"
```

```
    },
    {
      "weight": 880,
      "item": "Avocados",
      "vendor": "Taylor Farms",
      "carrier": null,
      "quantity": 160,
      "id": "5116145900191744",
      "self": "http://127.0.0.1:8080/loads/5116145900191744"
    },
    {
      "carrier": {
        "id": "6687202524266496",
        "self": "http://127.0.0.1:8080/trucks/6687202524266496"
      },
      "quantity": 288,
      "item": "Blueberries",
      "vendor": "Driscoll's",
      "weight": 1454,
      "id": "5679095853613056",
      "self": "http://127.0.0.1:8080/loads/5679095853613056"
    },
    {
      "vendor": "Driscoll's",
      "quantity": 360,
      "item": "Chocolate caramel apples",
      "weight": 3960,
      "carrier": null,
      "id": "5716561121771520",
      "self": "http://127.0.0.1:8080/loads/5716561121771520"
    }
  ]
}
```

Failure

Status: 406 Not Acceptable

```
{
  "Error": "This application only supports JSON responses"
}
```

Edit a Load (Put)

Allows you to overwrite all attributes of a load.

Side effect: 'carrier' will be reset to null and the truck carrying the load (if applicable) will no longer contain this load in its 'loads' property.

PUT /loads/:load_id

Protected?

No.

Request

Path Parameters

Name	Description
load_id	ID of the load

Request Body

Required

Request Body Format

application/json

Request JSON Attributes

Name	Description	Required?
item	The supplier of the item	Yes
quantity	The items in the load.	Yes
vendor	The number of cases of the item	Yes
weight	The weight (lbs) of the load	Yes

Request Body Example

```
{
  "item": "Blueberries",
  "quantity": 288,
  "vendor": "Hillcrest Produce",
  "weight": 1454
}
```

Response

Response Body Format

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The input *can* contain extraneous attributes. Any attributes aside from the required attributes listed above will be ignored.
Failure	400 Bad Request	The request is missing any of the required attributes.
Failure	404 Not Found	No load with this load_id exists.
Failure	406 Not Acceptable	The client wants a media type other than JSON.

Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "weight": 1450,
  "carrier": null,
  "vendor": "Hillcrest Produce",
  "quantity": 288,
  "item": "Blueberries",
  "id": "4899245085687808",
  "self": "http://127.0.0.1:8080/loads/4899245085687808"
}
```

Failure

Status: 400 Bad Request

```json
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 404 Not Found

```json
{
  "Error": "No load with this load_id exists"
}
```

Status: 406 Not Acceptable

```json
{
  "Error": "This application only supports JSON responses"
}
```

Status: 415 Unsupported Media Type

```json
{
  "Error": "Server only accepts application/json data."
}
```

Edit a Load (Patch)

Allows you to overwrite any subset of attributes of a load, excluding 'carrier.' The attributes that weren't explicitly overwritten in the request will remain unchanged.

Note: the relationship between a load and the truck carrying it will remain unchanged.

PATCH /loads/:load_id

Protected?

No.

Request

Path Parameters

Name	Description
load_id	ID of the load

Request Body

Required

Request Body Format

application/json

Request JSON Attributes

Name	Description	Required?
item	The supplier of the item	No
quantity	The items in the load.	No
vendor	The number of cases of the item	No
weight	The weight (lbs) of the load	No

Request Body Example

```
{
  "item": "Kale"
}
```

Response

Response Body Format

application/json

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	The input *can* contain extraneous attributes. Any attributes aside from the required attributes listed above will be ignored.
Failure	400 Bad Request	The request doesn't contain at least *one* of the attributes list above.
Failure	404 Not Found	No load with this load_id exists.
Failure	406 Not Acceptable	The client wants a media type other than JSON.
Failure	415 Unsupported Media Type	The request is not JSON.

Response Examples

Success

Status: 200 OK

```json
{
  "quantity": 135,
  "carrier": {
      "id": "6687202524266496",
      "self": "http://127.0.0.1:8080/trucks/6687202524266496"
   },
  "vendor": "Taylor Farms",
  "item": "Kale",
  "weight": 465.75,
  "id": "6225742111178752",
  "self": "http://127.0.0.1:8080/loads/6225742111178752"
}
```

Failure

Status: 400 Bad Request

```json
{
  "Error": "The request object is missing at least one of the required attributes"
}
```

Status: 404 Not Found
MIME type: application/json

```json
{
  "Error": "No load with this load_id exists"
}
```

Status: 406 Not Acceptable

```json
{
  "Error": "This application only supports JSON responses"
}
```

Status: 415 Unsupported Media Type
MIME type: application/json

```json
{
  "Error": "Server only accepts application/json data."
}
```

Delete a Load

Allows you to delete a load.

Side effect: If the load is on a truck, the deletion of the load will update the truck entity so that it no longer contains the load.

DELETE /loads/:load_id

Protected?

No.

Request

Path Parameters

Name	Description
load_id	ID of the load

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	
Failure	404 Not Found	No load with this load_id exists

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found

```
{
  "Error": "No load with this load_id exists"
}
```

Delete All Loads

Forbidden endpoint

DELETE /loads

Protected?

No.

Request

Path Parameters

None

Request Body

None

Response

No body

Response Body MIME Type

application/json

Response Statuses

Outcome	Status Code	Notes
Failure	405 Not Supported	This endpoint is not supported

Response Examples

Failure

Status: 405 Not Supported

```
{
  "Error": "This endpoint is not supported"
}
```

Managing Loads: Load Assigned to Truck

A load is assigned to a truck.

Note: A load *cannot* be assigned to multiple trucks.

PUT /trucks/:truck_id/loads/:load_id

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
truck_id	ID of the truck
load_id	ID of the load

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if a truck exists with this truck_id, a load exists with this load_id and the load hasn't already been assigned to a truck.
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the correct owner of the truck or the load has already been assigned to a truck.
Failure	404 Not Found	The specified truck and/or load does not exist.

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized

```
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden
```json
{
  "Error": "You do not have access to this truck"
}
```

Status: 403 Forbidden
```json
{
  "Error": "The load is already loaded on another truck"
}
```

Status: 404 Not Found
```json
{
  "Error": "The specified truck and/or load does not exist"
}
```

Managing Loads: Load Removed from Truck

A load is removed from a truck.

DELETE /truck/:truck_id/loads/:load_id

Protected?

Yes. The request must be accompanied by a valid bearer token.

Request

Path Parameters

Name	Description
load_id	ID of the load
truck_id	ID of the truck

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	Succeeds only if a truck exists with this truck_id, a load exists with this load_id and the load is on the truck.
Failure	401 Unauthorized	The bearer token is missing or invalid.
Failure	403 Forbidden	The bearer token is valid but does not correspond to the correct owner of the truck.
Failure	404 Not Found	No truck with this truck_id is loaded with the load with this load_id. This could be because no truck with this truck_id exists, or because no load with load_id exists, or even if both truck_id and load_id are valid, the load with this load_id is not on this truck with this truck_id

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized
```
{
  "Error": "Invalid token."
}
```

Status: 403 Forbidden

```json
{
  "Error": "You do not have access to this truck"
}
```

Status: 404 Not Found

```json
{
  "Error": "No truck with this truck_id is loaded with the load with this load_id"
}
```