

Final Project: API Spec

CS 493: Cloud Application Development

Fall 2020

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Last Update: December 7, 2020

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APP URL: <https://final-hawkes.wm.r.appspot.com>

Error Message for All URLs

If a method is not allowed for the target URL:

Response Example:

```
Status: 405 Method Not Allowed
{
  "Error": "Method not allowed"
}
```

Data-Store Data Model

Users Data-store:

Attribute	Description
"id": "1234567890"	String, unique ID of the user. This value is take from the "sub" attribute of the user's JWT after it has been validated.

A user record is created when a new user is successfully authenticated by Google. Users can get authenticated by signing into the login page at <https://final-hawkesc.wm.r.appspot.com>. After they have been authenticated, the user is shown their unique user ID and a valid JWT that they may use to access protected resources from the API.

When a user creates a new flight, the unique user ID is stored in the flight's "owner" attribute. All operations on the flight going forward are only granted to a user that provides a valid JWT with a "sub" attribute that matches the "owner" attribute of the flight.

Flights Data-store:

Attribute	Description
"date": "2021/12/31"	String, date of flight Year/Month/Day and must follow the pattern of "####/##/##" The date <u>must be</u> in the future or present day.
"capacity": 12	Integer, passenger capacity of flight
"origin": "Phoenix, AZ"	String, city where the flight originates
"destination": "Austin, TX"	String, destination city of the flight
"passengers": [1111111,2222222]	List of Integers. These are the id's of passengers that have been assigned to the flight.
"owner": "1234567890"	String, this value is the unique user ID of the user who created the flight. It is auto-assigned by the API when the flight is created.

Flights are resources that are owned by users. Users must provide a valid JWT as a bearer token when Creating, Viewing, Editing, or Deleting flights. A valid JWT is not needed when adding a passenger to a flight.

Flights store all the passenger id's assigned to it in an array attribute labeled "passengers". This array may have many id's listed in it or it may be an empty array if there have been no passengers assigned to the flight. The "owner" attribute is assigned by the server and is obtained from the user's provided JWT.

The four remaining attributes (date, capacity, origin and destination) are required and must be provided by the user when the entity is created. Information about each attribute is provided in the table above.

Passengers Data-store:

Attribute	Description
"name": "Clint Hawkes"	String, name of passenger
"birthday": "1985/06/15"	String, birthday of passenger. Format must follow the pattern of Year/Month/Day, so the string should look like "####/##/##" where first four digits are year of birth, next two digits are month, and last two digits are the day.
"country": "USA"	String, passenger resident country
"flights": []	Integer, IDs of flights assigned

Passengers will store the id of all the flights that the passenger has been assigned to. It is stored under the attribute labeled "flights". This attribute will be an empty list if the passenger has not been assigned to any flights. A passenger may be assigned to multiple flights.

The three remaining attributes (name, birthday and country) are required and must be provided by the user when the entity is created. Information about each attribute is provided in the table above.

Relationship Overview:

USERS own FLIGHTS

Operations on flights are protected and can only be completed by the owner.

PASSENGERS assigned to FLIGHTS

When a passenger is assigned to a flight, the passenger ID is stored in the flight "passengers" attribute. Likewise, the flight ID is stored in the passenger's "flights" attribute. Assigning a passenger to a flight is the only Non-Protected operation pertaining to flights.

View all Users

List all the users.

GET /users

Request

Request Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	405 Method not Allowed	The request method is not allowed. This endpoint only accepts 'GET' requests.
Failure	406 Not Acceptable	The acceptable response type must include "application/json".

Response Examples

Success

Status: 200 OK

```
[{
  "id": "1234567890"
},
{
  "id": "0987654321"
}]
```

Failure

Method not allowed:

Status: 405 Method Not Allowed

```
{
  "Error": "Method not allowed"
}
```

Not Acceptable:

Status: 406 Not Acceptable

```
{
  "Error": "The response must be json"
}
```

Create a Flight

*PROTECTED

Allows you to create a new flight.

POST /flights

Request

Request Parameters

None

Request Authentication

Bearer Token: Valid JWT

Request Body

Required

Request Body Format

JSON ***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
date	String	Date of the flight. Date <u>MUST</u> be present day or at a future date. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	Yes
capacity	Integer	The capacity of the flight. This is the maximum number of passengers that can be listed on the flight.	Yes
origin	String	City where the flight originates. This should contain the city and the state or country where the flight begins.	Yes
destination	String	Destination city of the flight. This should contain the city and state or country where the flight ends.	Yes

Request Body Example

```
{
  "date": "2021/01/17",
  "capacity": 12,
  "origin": "Phoenix, AZ",
  "destination": "Austin, TX"
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	

Failure	400 Bad Request	<p>If the request is missing any of the 4 required attributes, the flight must not be created, and 400 status code must be returned.</p> <p>If the attributes do not adhere to the required format/type as outlined in the "Request JSON Attributes" section above, a 400 status code will be returned.</p>
Failure	401 Unauthorized	<p>The user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned.</p> <p>If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.</p>
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request must be in JSON

Response Examples

- ❑ Datastore will automatically generate an ID and store it with the entity being created. This value needs to be sent in the response body as shown in the example.
- ❑ The `self` attribute will contain the live link to the REST resource corresponding to this flight. In other words, this is the URL to get this newly created flight. You must not store the `self` attribute in Datastore
- ❑ Passengers attribute will contain an empty array. When passengers are assigned to the flight, the array will add the id of the passenger being added.

Success

Status: 201 Created

```
{
  "id": "abc123",
  "date": "2021/01/17",
  "capacity": 12,
  "origin": "Phoenix, AZ",
  "destination": "Austin, TX",
  "passengers": [],
  "owner": 1234567890,
  "self": "http://<your-app>/flights/abc123"
}
```

Failure

Missing Attribute:

Status: 400 Bad Request

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

Incorrect Attribute Format:

Status: 400 Bad Request

```
{  
  "Error": "One or more of the request attributes do not conform to the  
  required type/format"  
}
```

Missing JWT:

Status: 401 Unauthorized

```
{  
  "Error": "Must provide a JWT"  
}
```

Invalid JWT:

Status: 401 Unauthorized

```
{  
  "Error": "JWT is not valid"  
}
```

Not accepting JSON:

Status: 406 Not Acceptable

```
{  
  "Error": "The response must be json"  
}
```

Client Request Wrong Type

Status: 415 Unsupported Media Type

```
{  
  "Error": "The request object must be json"  
}
```

View a Flight

***PROTECTED**

Allows you to get an existing flight

GET /flights/:flight_id

Request

Request Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes

Request Body

None

Request Authentication

Bearer Token: Valid JWT of flight owner

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	401 Unauthorized	The user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned. If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.
Failure	403 Forbidden	Only the owner can perform the operation
Failure	404 Not Found	No flight with this flight_id exists
Failure	406 Not Acceptable	Response must be in JSON

Response Examples

Success

Status: 200 OK

```
{
  "id": abc123,
  "date": "2021/01/17",
  "capacity": 12,
  "origin": "Phoenix, AZ",
  "destination": "Austin, TX",
  "owner": "1234567890",
  "passengers": [{
    "id": xyz321,
```



```
    "self": "http://<your-app>/passengers/xyz321"
  }],
  "self": "http://<your-app>/flights/abc123"
}
```

Failure

Missing JWT:

```
Status: 401 Unauthorized
{
  "Error": "Must provide a JWT"
}
```

Invalid JWT:

```
Status: 401 Unauthorized
{
  "Error": "JWT is not valid"
}
```

Wrong Owner:

```
Status: 403 Forbidden
{
  "Error": "Only the flight owner can perform this operation"
}
```

Invalid Flight Id:

```
Status: 404 Not Found
{
  "Error": "No flight with this flight_id exists"
}
```

Not accepting JSON:

```
Status: 406 Not Acceptable
{
  "Error": "The response must be json"
}
```

List all Flights of Owner

***PROTECTED**

List all the flights of the owner corresponding to a valid JWT.

GET /flights

Request

Request Parameters

None

Request Body

None

Request Authentication

Bearer Token: Valid JWT of flight owner

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 Ok	
Failure	401 Unauthorized	The user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned. If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.
Failure	406 Not Acceptable	Response must be in JSON

Response Examples

Success

```
Status: 200 OK
{"Flights":
  [{
    "id": "abc123",
    "date": "2021/01/17",
    "capacity": 12,
    "origin": "Phoenix, AZ",
    "destination": "Austin, TX"
    "passengers": [],
    "owner": 1234567890,
    "self": "http://<your-app>/flights/abc123"
  },{
```

```

    "id": "xyz789",
    "date": "2021/02/17",
    "capacity": 20,
    "origin": "Boise, ID",
    "destination": "Denver, CO"
    "passengers": [],
    "owner": 1234567890,
    "self": "http://<your-app>/flights/xyz789"
  },{
    "id": "qrs456",
    "date": "2021/01/29",
    "capacity": 36,
    "origin": "Dallas, TX",
    "destination": "Las Vegas, NV"
    "passengers": [],
    "owner": 1234567890,
    "self": "http://<your-app>/flights/qrs456"
  },{
    "id": "aaa111",
    "date": "2021/02/17",
    "capacity": 25,
    "origin": "Boise, ID",
    "destination": "Salt Lake City, UT"
    "passengers": [],
    "owner": 1234567890,
    "self": "http://<your-app>/flights/aaa111"
  },{
    "id": "bbb222",
    "date": "2021/02/22",
    "capacity": 10,
    "origin": "Portland, OR",
    "destination": "Denver, CO"
    "passengers": [],
    "owner": 1234567890,
    "self": "http://<your-app>/flights/bbb222"
  }
  "next": "http://<your-app>/flights?limit=5&offset=5",
  "total_count": 6
}

```

***Paging for the list of flights for verified owner is set at 5 results per page. If there are more than 5 flight records, a “next” attribute will be provided with a link that shows the next page of results. There is also a “total_count” attribute that shows how many total flights are in the collection.

Failure

Missing JWT:

```
Status: 401 Unauthorized
{
  "Error": "Must provide a JWT"
}
```

Invalid JWT:

```
Status: 401 Unauthorized
{
  "Error": "JWT is not valid"
}
```

Not accepting JSON:

```
Status: 406 Not Acceptable

{
  "Error": "The response must be json"
}
```

Edit a Flight - Subset of attributes

*PROTECTED

Allows you to edit a flight.

PATCH /flights/:flight_id

Request

Path Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes

Request Authentication

Bearer Token: Valid JWT of flight owner

Request Body

Required

Request Body Format

JSON - ***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
date	String	Date of the flight. Date <u>MUST</u> be present day or at a future date. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	No
capacity	Integer	The capacity of the flight. This is the maximum number of passengers that can be listed on the flight. When changing the capacity, the new value must not be less than the number of passengers currently assigned to the flight.	No
origin	String	City where the flight originates. This should contain the city and the state or country where the flight begins.	No
destination	String	Destination city of the flight. This should contain the city and state or country where the flight ends.	No

***Attributes not included in the request will remain unchanged.

Request Body Example

```
{
  "capacity": 25,
  "origin": "Chicago, IL"
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	<p>All attributes in the request body must adhere to the requirements outlined above in the “Request JSON Attributes” section. An error message will be returned if they don’t.</p> <p>Any extraneous attributes in the request body that are not “date”, “capacity”, “origin” or “destination” will be ignored by the server.</p>
Failure	401 Unauthorized	<p>The user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned.</p> <p>If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.</p>
Failure	403 Forbidden	<p>Only the owner is allowed to make changes to the flight.</p> <p>May not change the capacity of a flight to less than the number of passengers currently assigned to the flight.</p>
Failure	404 Not Found	No flight with this flight_id exists
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request must be in JSON

Response Examples

Success

Status: 200 OK
<pre>{ "id": abc123, "date": "2021/01/17", "capacity": 25, "origin": "Chicago, IL", "destination": "Austin, TX", "owner": "1234567890", "passengers": [{ "id": xyz321, "self": "http://<your-app>/passengers/xyz321" }], "self": "http://<your-app>/flights/abc123" }</pre>

Failure

Incorrect date Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'date' attribute in the request not conform to the required
type/format"
}
```

Incorrect Capacity Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'capacity' attribute in the request not conform to the
required type/format"
}
```

Incorrect Origin Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'origin' attribute in the request not conform to the required
type/format"
}
```

Incorrect Destination Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'destination' attribute in the request not conform to the
required type/format"
}
```

Missing JWT:

Status: 401 Unauthorized

```
{
  "Error": "Must provide a JWT"
}
```

Invalid JWT:

Status: 401 Unauthorized

```
{
  "Error": "JWT is not valid"
}
```

Wrong Owner:

Status: 403 Forbidden

```
{
  "Error": "Only the flight owner can perform this operation"
}
```

Invalid New Capacity:

Status: 403 Forbidden

```
{
  "Error": "New capacity value is less than the number of assigned
passengers. Please delete the flight and create a new one."
}
```

Invalid Flight Id:

Status: 404 Not Found

```
{
  "Error": "No flight with this flight_id exists"
}
```

Not accepting JSON:

Status: 406 Not Acceptable

```
{
  "Error": "The response must be json"
}
```

Client Request Wrong Type

Status: 415 Unsupported Media Type

```
{
  "Error": "The request object must be json"
}
```


Edit a Flight - All attributes

*PROTECTED

Allows you to edit a flight.

PUT /flights/:flight_id

Request

Path Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes

Request Authentication

Bearer Token: Valid JWT of flight owner

Request Body

Required

Request Body Format

JSON - ***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
date	String	Date of the flight. Date <u>MUST</u> be present day or at a future date. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	Yes
capacity	Integer	The capacity of the flight. This is the maximum number of passengers that can be listed on the flight. When changing the capacity, the new value must not be less than the number of passengers currently assigned to the flight.	Yes
origin	String	City where the flight originates. This should contain the city and the state or country where the flight begins.	Yes
destination	String	Destination city of the flight. This should contain the city and state or country where the flight ends.	Yes

Request Body Example

```
{
  "date": "2021/01/17",
  "capacity": 12,
  "origin": "Phoenix, AZ",
  "destination": "Austin, TX"
}
```

Response

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 okay	
Failure	400 Bad Request	<p>If the request is missing any of the 4 required attributes, the flight must not be updated, and 400 status code must be returned.</p> <p>All attributes in the request body must adhere to the requirements outlined above in the "Request JSON Attributes" section. An error message will be returned if they don't.</p> <p>Any extraneous attributes in the request body that are not required will be ignored.</p>
Failure	401 Unauthorized	<p>The user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned.</p> <p>If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.</p>
Failure	403 Forbidden	<p>Only the owner can modify the flight.</p> <p>The new capacity must not be less than the number of passengers currently assigned to the flight.</p>
Failure	404 Not Found	No flight with this flight_id exists
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request body attributes must be application/json format.

Response Examples

Success

Status: 200 Ok
<pre>{ "id": "abc123", "date": "2021/01/17", "capacity": 12, "origin": "Phoenix, AZ", "destination": "Austin, TX", "passengers": [], "owner": 1234567890, "self": "http://<your-app>/flights/abc123"</pre>

```
}
```

Failure

Missing Attribute:

Status: 400 Bad Request

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

Incorrect Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "One or more of the request attributes do not conform to the
required type/format"
}
```

Missing JWT:

Status: 401 Unauthorized

```
{
  "Error": "Must provide a JWT"
}
```

Invalid JWT:

Status: 401 Unauthorized

```
{
  "Error": "JWT is not valid"
}
```

Wrong Owner:

Status: 403 Forbidden

```
{
  "Error": "Only the flight owner can perform this operation"
}
```

Invalid New Capacity:

Status: 403 Forbidden

```
{
  "Error": "New capacity value is less than the number of assigned
passengers. Please delete the flight and create a new one."
}
```

Invalid Flight Id:

Status: 404 Not Found

```
{  
  "Error": "No flight with this flight_id exists"  
}
```

Not accepting JSON:

Status: 406 Not Acceptable

```
{  
  "Error": "The response must be json"  
}
```

Client Request Wrong Type

Status: 415 Unsupported Media Type

```
{  
  "Error": "The request object must be json"  
}
```

Delete a Flight

*PROTECTED

Allows you to delete a flight.

***Note: If the flight is currently assigned to a passenger, deleting the flight will remove the flight ID from the passengers "flights" attribute that contains a list of flights they are assigned.

DELETE /flights/:flight_id

Request

Request Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes

Request Body

None

Request Authentication

Bearer Token: Valid JWT of flight owner

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 user must provide a JWT as a bearer token for the request to create a flight. If there is no JWT present, a 401 error code will be returned. If the user provides a JWT, but the JWT is not valid, a 401 error code will be returned.
Failure	403 Forbidden	Only the owner can modify the flight.
Failure	404 Not Found	No flight with this flight_id exists

Response Examples

Success

Status: 204 No Content

Failure

Missing JWT:

```
Status: 401 Unauthorized
{
  "Error": "Must provide a JWT"
}
```

Invalid JWT:

```
Status: 401 Unauthorized
{
  "Error": "JWT is not valid"
}
```

Wrong Owner:

```
Status: 403 Forbidden
{
  "Error": "Only the flight owner can perform this operation"
}
```

Invalid Flight ID:

```
Status: 404 Not Found

{
  "Error": "No flight with this flight_id exists"
}
```

Create a Passenger

Allows you to create a new passenger.

POST /passengers

Request

Request Parameters

None

Request Body

Required

Request Body Format

JSON***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
name	String	The name of the passenger.	Yes
birthday	String	Date the passenger was born. Birthday <u>MUST</u> be prior to present day. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	Yes
country	String	Passenger's country of residence.	Yes

Request Body Example

```
{  
  "name": "Clint Hawkes",  
  "birthday": "1985/06/15",  
  "country": "USA"  
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201 Created	
Failure	400 Bad Request	<p>If the request is missing any of the attributes, the passenger must not be created, and 400 status code must be returned.</p> <p>All attributes in the request body must adhere to the requirements outlined above in the "Request JSON Attributes" section. An error message will be returned if they don't.</p>

		Any extraneous attributes in the request body that are not required will be ignored by the server.
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request body attributes must be application/json format.

Response Examples

- ❑ Datastore will automatically generate an ID and store it with the entity being created. This value needs to be sent in the response body as shown in the example.
- ❑ The value of the attribute `self` is a live link to the REST resource corresponding to this passenger. In other words, this is the URL to get this newly created passenger. You must not store this attribute in Datastore

Success

Status: 201 Created

```
{
  "id": "123abc",
  "name": "Clint Hawkes",
  "birthday": "1985/06/15",
  "country": "USA",
  "flights": [],
  "self": "http://<your-app>/passengers/123abc"
}
```

Failure

Missing Attribute:

Status: 400 Bad Request

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

Incorrect Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "One or more of the request attributes do not conform to the required type/format"
}
```


Not accepting JSON:

Status: 406 Not Acceptable

```
{  
  "Error": "The response must be json"  
}
```

Client Request Wrong Type:

Status: 415 Unsupported Media Type

```
{  
  "Error": "The request object must be json"  
}
```

View a Passenger

Allows you to get an existing passenger.

GET /passengers/:passenger_id

Request

Request Parameters

Name	Type	Description	Required?
passenger_id	String	ID of the passenger	Yes

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	404 Not Found	No passenger with this passenger_id exists
Failure	406 Not Acceptable	Response must be in JSON

Response Examples

Success

```
Status: 200 Ok
{
  "id": "123abc",
  "name": "Doug Lewis",
  "birthday": "1977/03/23",
  "country": "France",
  "flights": [],
  "self": "http://<your-app>/passengers/123abc"
}
```

Failure

```
Status: 404 Not Found
{
  "Error": "No passenger with this passenger_id exists"
}
```

Not accepting JSON:

```
Status: 406 Not Acceptable
{
  "Error": "The response must be json"
}
```

View all Passengers

List all the passengers.

GET /passengers

Request

Request Parameters

None

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	406 Not Acceptable	Response must be in JSON

Response Examples

Success

```
Status: 200 OK
{"passengers":
  [
    {
      "id": "abc123",
      "name": "Clint Hawkes",
      "birthday": "1985/06/15",
      "country": "USA",
      "flights": [],
      "self": "http://<your-app>/passengers/abc123"
    },
    {
      "id": "xyz789",
      "name": "Ben Lewis",
      "birthday": "1984/10/13",
      "country": "USA",
      "flights": [],
      "self": "http://<your-app>/passengers/xyz789"
    },
    {
      "id": "qrs456",
      "name": "Brittany Poole",
      "birthday": "1988/08/17",
      "country": "USA",
      "flights": [],
      "self": "http://<your-app>/passengers/qrs456"
    },
    {
      "id": "aaa111",
```

```
{
  "name": "John Doe",
  "birthday": "1999/06/22",
  "country": "Canada",
  "flights": [],
  "self": "http://<your-app>/passengers/aaa111"
},{
  "id": "bbb222",
  "name": "Mike Smith",
  "birthday": "1965/09/23",
  "country": "Mexico",
  "flights": [],
  "self": "http://<your-app>/passengers/bbb222"
}]
"next": "http://<your-app>/passengers?limit=5&offset=5",
"total_count": 6
}
```

***Paging for the list of all passengers is set at 5 results per page. If there are more than 5 passenger records, a "next" attribute will be provided with a link that shows the next page of results. There is also a "total_count" attribute that shows how many passengers are in the collection.

Failure

Not accepting JSON:

```
Status: 406 Not Acceptable
{
  "Error": "The response must be json"
}
```

Edit a Passenger - Subset of attributes

Allows you to edit a passenger.

PATCH /passengers/:passenger_id

Request

Path Parameters

Name	Type	Description	Required?
passenger_id	String	ID of the passenger	Yes

Request Body

Required

Request Body Format

JSON - ***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
name	String	The name of the passenger.	No
birthday	String	Date the passenger was born. Birthday <u>MUST</u> be prior to present day. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	No
country	String	Passenger's country of residence.	No

Request Body Example

```
{
  "name": "Jose Trejo",
  "birthday": "1985/06/15"
}
```

***Attributes not included in the request will remain unchanged.

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	400 Bad Request	All attributes in the request body must adhere to the requirements outlined above in the "Request JSON Attributes" section. An error message will be returned if they don't. Any extraneous attributes in the request body that are not "name", "birthday" or "country" will be ignored by

		the server.
Failure	404 Not Found	No passenger with this passenger_id exists
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request must be in JSON

Response Examples

Success

Status: 200 Ok

```
{
  "id": "123abc",
  "name": "Jose Trejo",
  "birthday": "1985/06/15",
  "country": "France",
  "flights": [],
  "self": "http://<your-app>/passengers/123abc"
}
```

Failure

Incorrect Name Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'name' attribute in the request not conform to the required type/format"
}
```

Incorrect Birthday Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'birthday' attribute in the request not conform to the required type/format"
}
```

Incorrect Country Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "The 'country' attribute in the request not conform to the required type/format"
}
```

Incorrect Passenger ID

Status: 404 Not Found

```
{  
  "Error": "No passenger with this passenger_id exists"  
}
```

Client Requests Unsupported Format

Status: 406 Not Acceptable

```
{  
  "Error": "The response must be json"  
}
```

Client Request Wrong Type

Status: 415 Unsupported Media Type

```
{  
  "Error": "The request object must be json"  
}
```

Edit a Passenger - All attributes

Allows you to edit a passenger.

PUT /passengers/:passenger_id

Request

Path Parameters

Name	Type	Description	Required?
passenger_id	String	ID of the passenger	Yes

Request Body

Required

Request Body Format

JSON - ***If JSON is incorrectly formatted and cannot be parsed, server will return generic error

Request JSON Attributes

Name	Type	Description	Required?
name	String	The name of the passenger.	Yes
birthday	String	Date the passenger was born. Birthday <u>MUST</u> be prior to present day. Format of the date must follow: YEAR/MONTH/DAY, so the string would be "####/##/##" replacing # with the correct numbers.	Yes
country	String	Passenger's country of residence.	Yes

Request Body Example

```
{
  "name": "Jose Trejo",
  "birthday": "1985/06/15",
  "country": "Mexico"
}
```

Response

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 okay	
Failure	400 Bad Request	If the request is missing any of the 3 required attributes, the passenger must not be updated, and 400 status code must be returned. All attributes in the request body must adhere to the requirements outlined above in the "Request JSON"

		Attributes" section. An error message will be returned if they don't.
		Any extraneous attributes in the request body that are not required will be ignored by the server.
Failure	404 Not Found	No passenger with this passenger_id exists
Failure	406 Not Acceptable	Response must be in JSON
Failure	415 Unsupported Media Type	Request body attributes must be application/json format.

Response Examples

Status: 200 Ok

```
{
  "id": "123abc",
  "name": "Jose Trejo",
  "birthday": "1985/06/15",
  "country": "Mexico",
  "flights": [],
  "self": "http://<your-app>/passengers/123abc"
}
```

Failure

Missing Attribute:

Status: 400 Bad Request

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

Incorrect Attribute Format:

Status: 400 Bad Request

```
{
  "Error": "One or more of the request attributes do not conform to the required type/format"
}
```

Incorrect Passenger ID

Status: 404 Not Found

```
{
  "Error": "No passenger with this passenger_id exists"
}
```

Not accepting JSON:

```
Status: 406 Not Acceptable
{
  "Error": "The response must be json"
}
```

Client Request Wrong Type:

```
Status: 415 Unsupported Media Type

{
  "Error": "The request object must be json"
}
```

Delete a Passenger

Allows you to delete a passenger.

***Note. If the passenger is currently assigned to a flight/s, the passenger will be removed from the passenger list of all flights.

DELETE /passengers/:passenger_id

Request

Request Parameters

Name	Type	Description	Required?
passenger_id	String	ID of the passenger	Yes

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 passenger with this passenger_id exists

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found

```
{
  "Error": "No passenger with this passenger_id exists"
}
```

Assign Passenger to Flight

Passenger is listed on the flight's passenger list, and the flight is listed in the passenger's flight list.

PUT /flights/:flight_id/passengers/:passenger_id

Request

Request Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes
passenger_id	String	ID of the passenger	Yes

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 flight exists with this flight_id, a passenger exists with this passenger_id.
Failure	403 Forbidden	Passenger is already assigned to this flight. Flight is already at capacity, so no more passengers can be assigned.
Failure	404 Not Found	No flight with this flight_id exists, and/or no passenger with this passenger_id exists.

Response Examples

Success

Status: 204 No Content

Failure

Passenger Already Listed:

```
Status: 403 Forbidden
{
  "Error": "The passenger is already on this flight"
}
```

Flight At Capacity

Status: 403 Forbidden

```
{  
  "Error": "Flight is at capacity"  
}
```

Status: 404 Not Found

```
{  
  "Error": "The specified flight and/or passenger does not exist"  
}
```

Remove Passenger from Flight

Flight is removed from the passenger's flight list, and the passenger is removed from the flight's passenger list.

DELETE /flights/:flight_id/passengers/:passenger_id

Request

Request Parameters

Name	Type	Description	Required?
flight_id	String	ID of the flight	Yes
passenger_id	String	ID of the passenger	Yes

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 flight exists with this flight_id and a passenger exists with this passenger_id.
Failure	404 Not Found	No flight with this flight_id has a passenger with this passenger_id.

Response Examples

Success

Status: 204 No Content

Failure

Status: 404 Not Found

```
{
  "Error": "No flight with this flight_id has a passenger with this
passenger_id"
}
```