Assignment 5: API Spec

CS 493: Cloud Application Development

Oregon State University

Change Log

Version	Change	Date
1.0	Initial version.	Oct 20, 2024

Generate a JWT

Generate a JWT for a registered user of the app.

- This endpoint must send a request to the Auth0 domain created for the REST API to get a token.
- It must return the status code and the response returned by the Auth0 domain.

POST /login

Request

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
username	Username	Yes
password	Password	Yes

Request Body Example

```
{
  "username": "wallace@cheese.com",
  "password": "Cheese1234!"
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	N/A	We will not test failure

Response Examples

Success

Status: 200 OK
```
{
    "access_token":
"eyJhbGciOiJkaXIiLCJlbmMiOiJBMjU2R0NNIiwiaXNzIjoiaHR0cHM6Ly80OTMtMjQtc3ByaW5nLnVzLmF1d
GgwLmNvbS8ifQ..KiwJRBMnUucPOv19.2YK2drhDxD0iHmwiUySQjQmEjY7fsSPMPMn6MBvKwlxSmLq4EnWHOO
a3s8M2sOS6g8yJjlOOZZonZfSgE14t1cxM9qChdq-
DlaAXgxIq7qq1RKiUvuF4brggCBIrrccuyWWhpTFWCEnE5dEijfJ0zEeoP4NKN9aZAkhLEDyYjODaYNEDs5rW2
```

```
fpA1OTrQQZGQStwvXXlFp8HR_U8ck0Q92JnYFFrp8Ht_cq1LHsI1Rgb5fJTaywz7ZFB8-
GSQIAJApY7EtyAcOBg5cp310kvcjoY_zJzeG603AdL286IM45qiPZkGpVo5J308I30qoWnHLmjeCuPxTyiNNib
sCB550OOtI2u7aZpru6yTglz70n8RZ8.bdnR6upw-XLdUh_PewTP7Q",
    "id_token":
"eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCIsImtpZCI6IllLT3g5S1NXNDdmOGlUZTJHSkxQOCJ9.eyJuaWNr
bmFtZSI6IndhbGxhY2UiLCJuYW1lIjoid2FsbGFjZUBjaGVlc2UuY29tIiwicGljdHVyZSI6Imh0dHBzOi8vcy
5ncmF2YXRhci5jb20vYXZhdGFyL2Q2NjBhMjE4ODNhNGNjYjM3OWFkMWNlMWIxOTg0M2U5P3M9NDgwJnI9cGcm
ZD1odHRwcyUzQSUyRiUyRmNkbi5hdXRoMC5jb20lMkZhdmF0YXJzJTJGd2EucG5nIiwidXBkYXRlZF9hdCI6Ij
IwMjQtMDUtMDdUMTU6MDc6NDIuMTM4WiIsImVtYWlsIjoid2FsbGFjZUBjaGVlc2UuY29tIiwiZW1haWxfdmVy
aWZpZWQiOmZhbHNlLCJpc3MiOiJodHRwczovLzQ5My0yNC1zcHJpbmcudXMuYXV0aDAuY29tLyIsImF1ZCI6Ik
hKN1hYMHZiQ01wVHdqVmxjjNmtqeG1EbUJRc3NkRFNqIiwiaWF0IjoxNzE1MDk0NDYyLCJleHAiOjE3MTUxMzA0
NjIsInN1YiI6ImF1dGgwfDY2MzlhMGMyMTA0NWRkMDY5ZmJiZjJjMCJ9.TGejoA4LACP0d62GoLrNW8x08ahUk
YHKSGBMusgWwriwvxhaO7uIYgXRS-GRdFbiRhPnKIXyZqLGrXbsHa3LLS0FGCQlNLMlPX8Vw3yLL2OzGL-
ceoJ2cQXM9shVu81HTRsXvLfZnc-UjDNsVqPBsphKMv2NIBqxmBGdF5i8dEfGCpoZJB8IlKEN-
ElllWBisYOJa88dg2LGFzT0uLZRntab1vHv-O12ojhoRC-
QR34pjikn7o48x1P0D0kwkyWszCndXWc11sj0q8u16OmXqtBFIEUVJ6CRor0yWZD9b8mphW0SD1UebcEiP-
38KSkWJh8inRbcnynxfj0KGUgizA",
    "scope": "openid profile email address phone",
    "expires_in": 86400,
    "token_type": "Bearer"
}
```

Decode a JWT

Decode the valid JWT supplied in the Authorization header as a Bearer token.

We will not test this endpoint with an invalid JWT.

```
GET /decode
```

Request

Header

The JWT as a Bearer token in the Authorization header

Path Parameters

None

Request Body

None

Request Body Format

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	
Failure	N/A	We will not test failure

Response Examples

Success

```
Status: 200 OK

{
    "aud": "HJ7XX0vbCMpTwjVlc6kjxmDmBQssdDSj",
    "email": "wallace@cheese.com",
    "email_verified": false,
    "exp": 1715129677,
    "iat": 1715093677,
    "iss": "https://493-24-spring.us.auth0.com/",
    "name": "wallace@cheese.com",
    "nickname": "wallace",
    "picture":
"https://s.gravatar.com/avatar/d660a21883a4ccb379ad1ce1b19843e9?s=480&r=pg&d=https%3A%
2F%2Fcdn.auth0.com%2Favatars%2Fwa.png",
    "sub": "auth0|6639a0c21045dd069fbbf2c0",
    "updated_at": "2024-05-07T14:54:37.124Z"
}
```

Create a Business

Allows you to create a new business.

POST /businesses

Request

Header

The JWT as a Bearer token in the Authorization header

Path Parameters

None

Request Body

Required

Request Body Format

JSON

Request JSON Attributes

Name	Description	Required?
name	The name of the business. Up to 50 characters.	Yes
street_address	Street address of the business. Up to 100 characters.	Yes
city	City. Up to 50 characters.	Yes
state	Two letter code for the state	Yes
zip_code	5 digit zip code.	Yes
inspection_score	Integer value. 1, 2, 3, 4 or 5.	Yes

Request Body Example

```
{
  "name": "Mandola's",
  "street_address": "4900 N Lamar Blvd",
  "city": "Austin",
  "state": "TX",
  "zip_code": 78751,
  "inspection_score": 5
}
```

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	201	
Failure	400	If the request is missing any of the 6 required attributes, the business must not be created, and 400 status code must be returned. You don't need to validate the values of the attributes

		and can assume that if the request contains any of the listed attributes, then that attribute's value is valid. You can also assume that the request will not contain any extraneous attribute (i.e., the request JSON will never contain any attribute that is not listed above).
Failure	401	If the JWT is missing or invalid. If a request has both an invalid body and invalid JWT, the response status code must be 400. In other words, first check whether the body is valid, and only then you need to validate the JWT.

Response Examples

Success

Status: 201 Created

```
{
 "id": 156789,                                  # generated by Datastore
 "owner_id": "auth0|6639a0c21045dd069fbbf2c0",   # value of sub from the token
 "name": "Mandola's",
 "street_address": "4900 N Lamar Blvd",
 "city": "Austin",
 "state": "TX",
 "zip_code": 78751,
 "inspection_score": 1
   "self": "https://my-app.com/businesses/156789"
}
```

Failure

Status: 400 Bad Request

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

Status: 401 Unauthorized

You can set the response body to whatever you want. We won't test it.

Get a Business

Allows you to get an existing business

GET /businesses/:business_id

Request

Header

The JWT as a Bearer token in the Authorization header

Path Parameters

Name	Description
business_id	ID of the business

Request Body

None

Response

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	If the business exists and the JWT is valid and the JWT belongs to the owner of the business
Failure	401	If the JWT is missing or invalid, regardless of whether a business with this ID exists or not.
Failure	403	If the JWT is valid, but no business exists with this ID. If the JWT is valid and the business exists, but the JWT doesn't belong to the owner of the business.

Response Examples

Success

```
Status: 200 OK

{
    "city": "Austin",
    "id": 5634601401712640,
    "inspection_score": 4,
    "name": "Wallace 1",
    "owner_id": "auth0|6639a0c21045dd069fbbf2c0",
    "self": "http://127.0.0.1:8080/businesses/5634601401712640",
    "state": "TX",
    "street_address": "321 South Mopac",
    "zip_code": 78704
}
```

Status: 401 Unauthorized *You can set the response body to whatever you want. We won't test it.*

Status: 403 Forbidden
{
    "Error": "No business with this business_id exists"
}

List Businesses

List businesses based on the JWT provided in the request.

GET /businesses

Request

Header

The JWT as a Bearer token in the Authorization header

Path Parameters

None

Query Parameters

None

Request Body

None

Response

- The response is always an array (though it can be empty)
- If the request has a valid JWT as a Bearer token, then
    - The array must contain all businesses whose owner matches the sub property in the supplied JWT.
    - If the owner doesn't have any businesses, the array should be empty.
    - The JSON object for a business must have all 9 properties for the response for the endpoint POST /businesses.
- If no JWT is provided or an invalid JWT is provided
    - The array must contain all businesses regardless of owner.
    - If there are no businesses, the array should be empty.
    - The JSON object for a business must have 8 of the 9 properties listed for the response from POST /businesses.
    - The property `inspection_score` must be excluded in the response for all businesses.

Response Body Format

JSON

Response Statuses

Outcome	Status Code	Notes
Success	200 OK	

Response Examples

Success

Invalid JWT or no JWT

Status: 200 OK
[
{

```
        "city": "Austin",
        "id": 5699409840963584,
        "name": "Wallace 1",
        "owner_id": "auth0|6639a0c21045dd069fbbf2c0",
        "self": "http://127.0.0.1:8080/businesses/5699409840963584",
        "state": "TX",
        "street_address": "321 South Mopac",
        "zip_code": 78704
    },
    {
        "city": "Austin",
        "id": 5721207605297152,
        "name": "Gromit's Hot Dogs",
        "owner_id": "auth0|6639a97b7cd14eb5edd6abce",
        "self": "http://127.0.0.1:8080/businesses/5721207605297152",
        "state": "TX",
        "street_address": "2301 Anderson Lane",
        "zip_code": 78756
    },
    {
        "city": "Austin",
        "id": 5746210958737408,
        "name": "Wallace 2",
        "owner_id": "auth0|6639a0c21045dd069fbbf2c0",
        "self": "http://127.0.0.1:8080/businesses/5746210958737408",
        "state": "TX",
        "street_address": "4900 N Lamar Blvd",
        "zip_code": 78751
    }
]
```

Valid JWT

```
Status: 200 OK
[
    {
        "city": "Austin",
        "id": 5699409840963584,
        "inspection_score": 4,
        "name": "Wallace 1",
        "owner_id": "auth0|6639a0c21045dd069fbbf2c0",
        "self": "http://127.0.0.1:8080/businesses/5699409840963584",
        "state": "TX",
        "street_address": "321 South Mopac",
        "zip_code": 78704
    },
    {
        "city": "Austin",
```

```json
        "id": 5746210958737408,
        "inspection_score": 3,
        "name": "Wallace 2",
        "owner_id": "auth0|6639a0c21045dd069fbbf2c0",
        "self": "http://127.0.0.1:8080/businesses/5746210958737408",
        "state": "TX",
        "street_address": "4900 N Lamar Blvd",
        "zip_code": 78751
    }
]
```

Delete a Business

Allows you to delete a business.

DELETE /businesses/:business_id

Request

Header

The JWT as a Bearer token in the Authorization header

Path Parameters

Name	Description
business_id	ID of the business

Request Body

None

Response

No body

Response Body Format

Success: No body

Failure: JSON

Response Statuses

Response Statuses

Outcome	Status Code	Notes
Success	204 No Content	If the business exists and the JWT is valid and the JWT belongs to the owner of the business
Failure	401	If the JWT is missing or invalid, regardless of whether a business with this ID exists or not.
Failure	403	If the JWT is valid, but no business exists with this ID. If the JWT is valid and the business exists, but the JWT doesn't belong to the owner of the business.

Response Examples

Success

Status: 204 No Content

Failure

Status: 401 Unauthorized *You can set the response body to whatever you want. We won't test it.*

Status: 403 Forbidden
{
    "Error": "No business with this business_id exists"
}