Assignment Two Documentation

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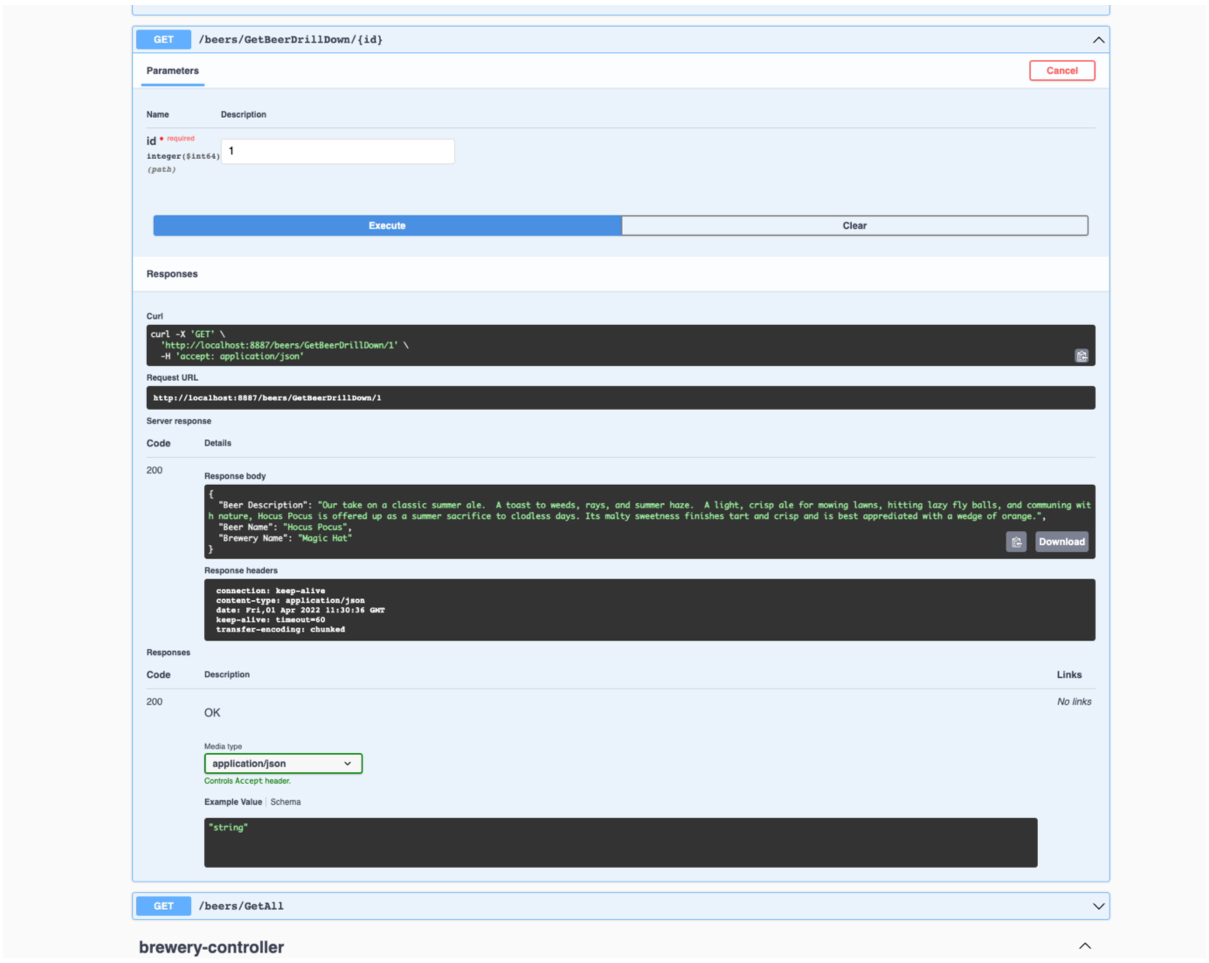
Documentation

Core API Development

Beer

Figure below shows GET an individual beer based on id with HATEOAS Principles.

http://localhost:8887/swagger-ui/index.html#/beer-controller/getBeerDrillDown



Curl

```
curl -X 'GET' \
  'http://localhost:8887/beers/GetBeerDrillDown/1' \
  -H 'accept: application/json'
```

Request URL

```
http://localhost:8887/beers/GetBeerDrillDown/1
```

Server response

Code 200

Response body

```
{
  "Beer Description": "Our take on a classic summer ale.  A toast to weeds, rays, and summer haze.  A light, crisp ale for mowing lawns, hitting lazy fly balls, and communing wit
h nature, Hocus Pocus is offered up as a summer sacrifice to clodless days. Its malty sweetness finishes tart and crisp and is best appredicated with a wedge of orange.",
  "Beer Name": "Hocus Pocus",
  "Brewery Name": "Magic Hat"
}
```

Response headers

```
connection: keep-alive
content-type: application/json
date: Fri,01 Apr 2022 11:30:36 GMT
keep-alive: timeout=60
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	OK	No links

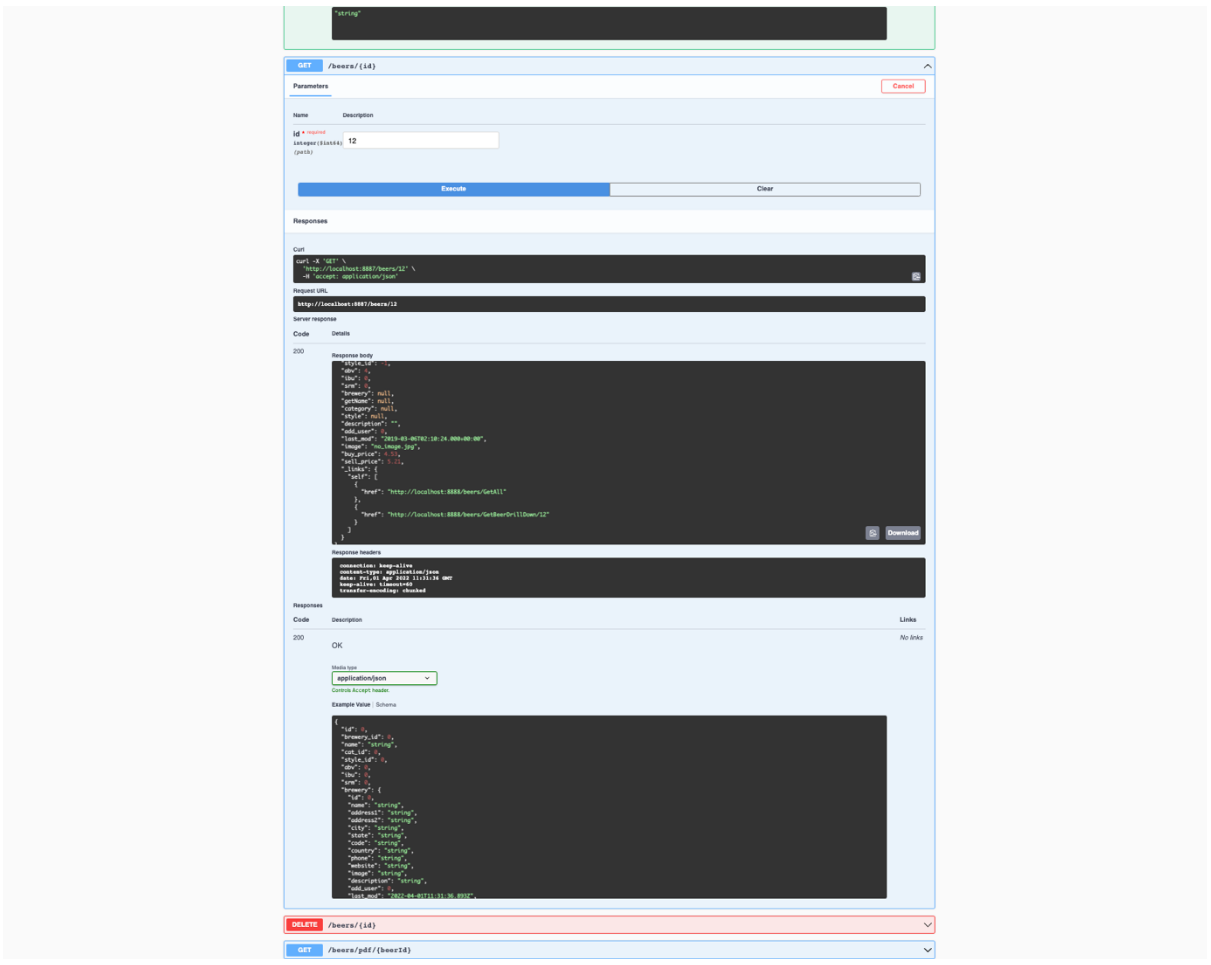
Media type: application/json

Controls Accept header.

Example Value | Schema

```
"string"
```

http://localhost:8887/swagger-ui/index.html#/beer-controller/getOne



```
"string"
```

GET /beers/{id}

Parameters

Cancel

Name	Description
id * required integer($int64) (path)	12

Execute   Clear

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:8887/beers/12' \
  -H 'accept: application/json'
```

Request URL

```
http://localhost:8887/beers/12
```

Server response

Code   Details

200

Response body

```
  "style_id": -1,
  "abv": 4,
  "ibu": 0,
  "srm": 0,
  "brewery": null,
  "getName": null,
  "category": null,
  "style": null,
  "description": "",
  "add_user": 0,
  "last_mod": "2019-03-06T02:10:24.000+00:00",
  "image": "no_image.jpg",
  "buy_price": 4.53,
  "sell_price": 5.21,
  "_links": {
    "self": [
      {
        "href": "http://localhost:8888/beers/GetAll"
      },
      {
        "href": "http://localhost:8888/beers/GetBeerDrillDown/12"
      }
    ]
  }
```

Download

Response headers

```
connection: keep-alive
content-type: application/json
date: Fri,01 Apr 2022 11:31:36 GMT
keep-alive: timeout=60
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	OK	*No links*

Media type

application/json

Controls Accept header.

Example Value | Schema

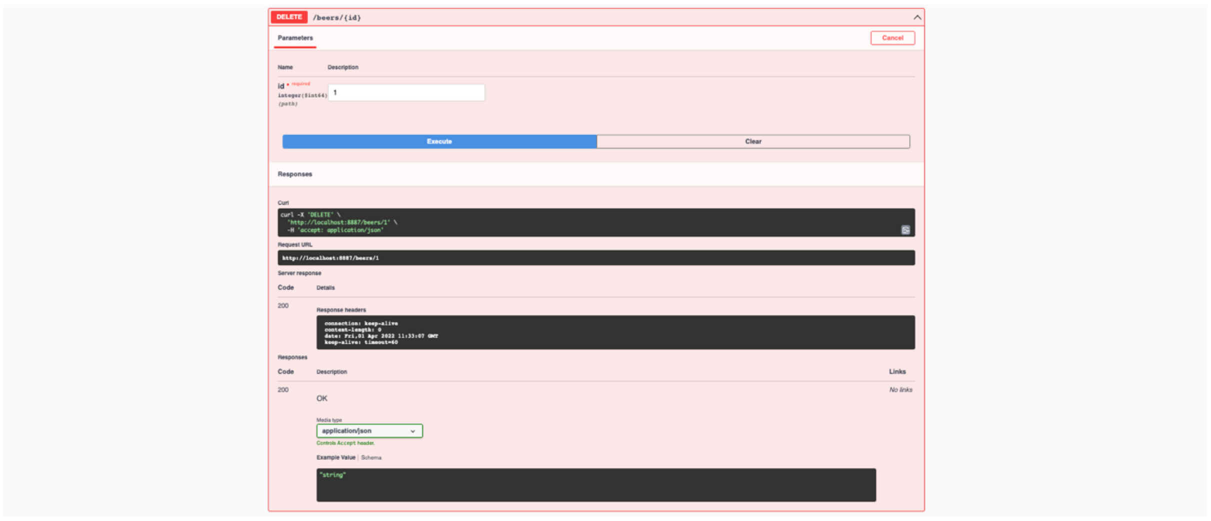
```
{
  "id": 0,
  "brewery_id": 0,
  "name": "string",
  "cat_id": 0,
  "style_id": 0,
  "abv": 0,
  "ibu": 0,
  "srm": 0,
  "brewery": {
    "id": 0,
    "name": "string",
    "address1": "string",
    "address2": "string",
    "city": "string",
    "state": "string",
    "code": "string",
    "country": "string",
    "phone": "string",
    "website": "string",
    "image": "string",
    "description": "string",
    "add_user": 0,
    "last_mod": "2022-04-01T11:31:36.893Z",
```

DELETE /beers/{id}

GET /beers/pdf/{beerId}

Figure below shows Get All beer pagination

Beer DELETE Feature



DELETE /beers/{id}

Parameters

Name	Description
id * required integer($int64) (path)	1

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:8887/beers/1' \
  -H 'accept: application/json'
```

Request URL

```
http://localhost:8887/beers/1
```

Server response

Code	Details
200	Response headers

```
connection: keep-alive
content-length: 0
date: Fri,01 Apr 2022 11:33:07 GMT
keep-alive: timeout=60
```

Responses

Code	Description	Links
200	OK	No links

Media type: application/json

Controls Accept header.

Example Value | Schema

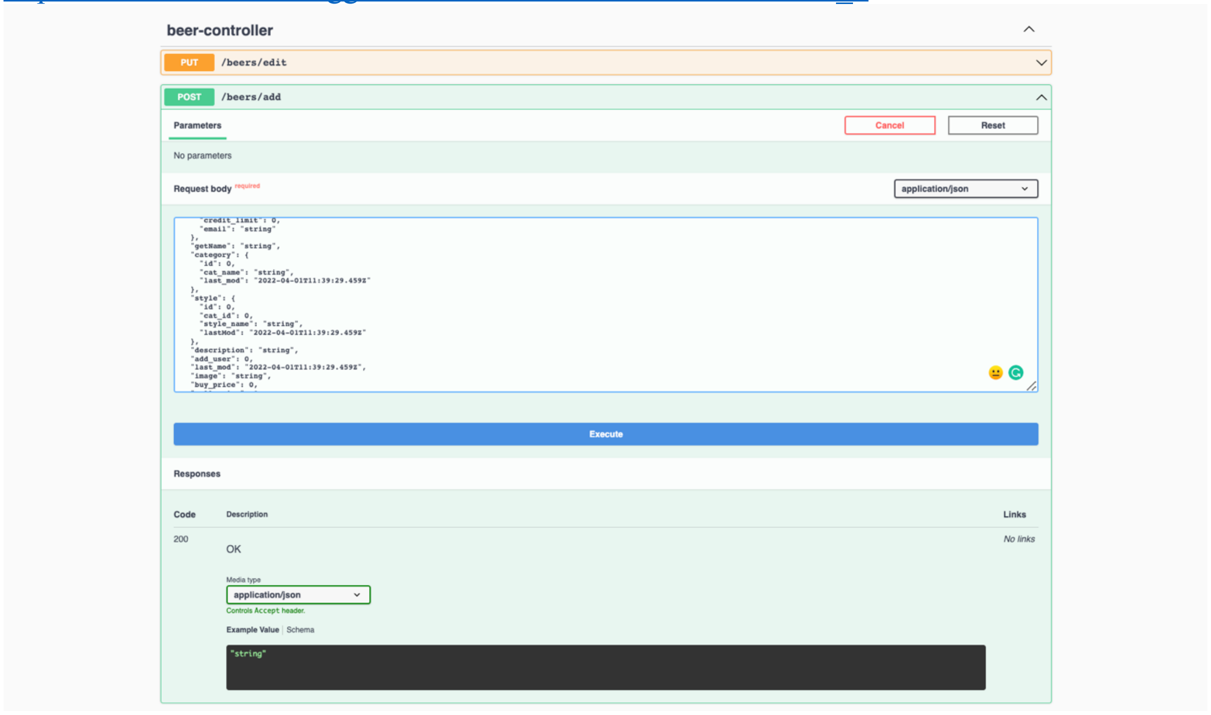
```
"string"
```

Beer EDIT Feature

http://localhost:8887/swagger-ui/index.html#/beer-controller/edit

Beer ADD Feature

http://localhost:8887/swagger-ui/index.html#/beer-controller/add_1



beer-controller

PUT /beers/edit

POST /beers/add

Parameters

No parameters

Request body required

application/json

```
    "credit_limit": 0,
    "email": "string"
  },
  "getName": "string",
  "category": {
    "id": 0,
    "cat_name": "string",
    "last_mod": "2022-04-01T11:39:29.459Z"
  },
  "style": {
    "id": 0,
    "cat_id": 0,
    "style_name": "string",
    "lastMod": "2022-04-01T11:39:29.459Z"
  },
  "description": "string",
  "add_user": 0,
  "last_mod": "2022-04-01T11:39:29.459Z",
  "image": "string",
  "buy_price": 0,
```

Responses

Code	Description	Links
200	OK	No links

Media type: application/json

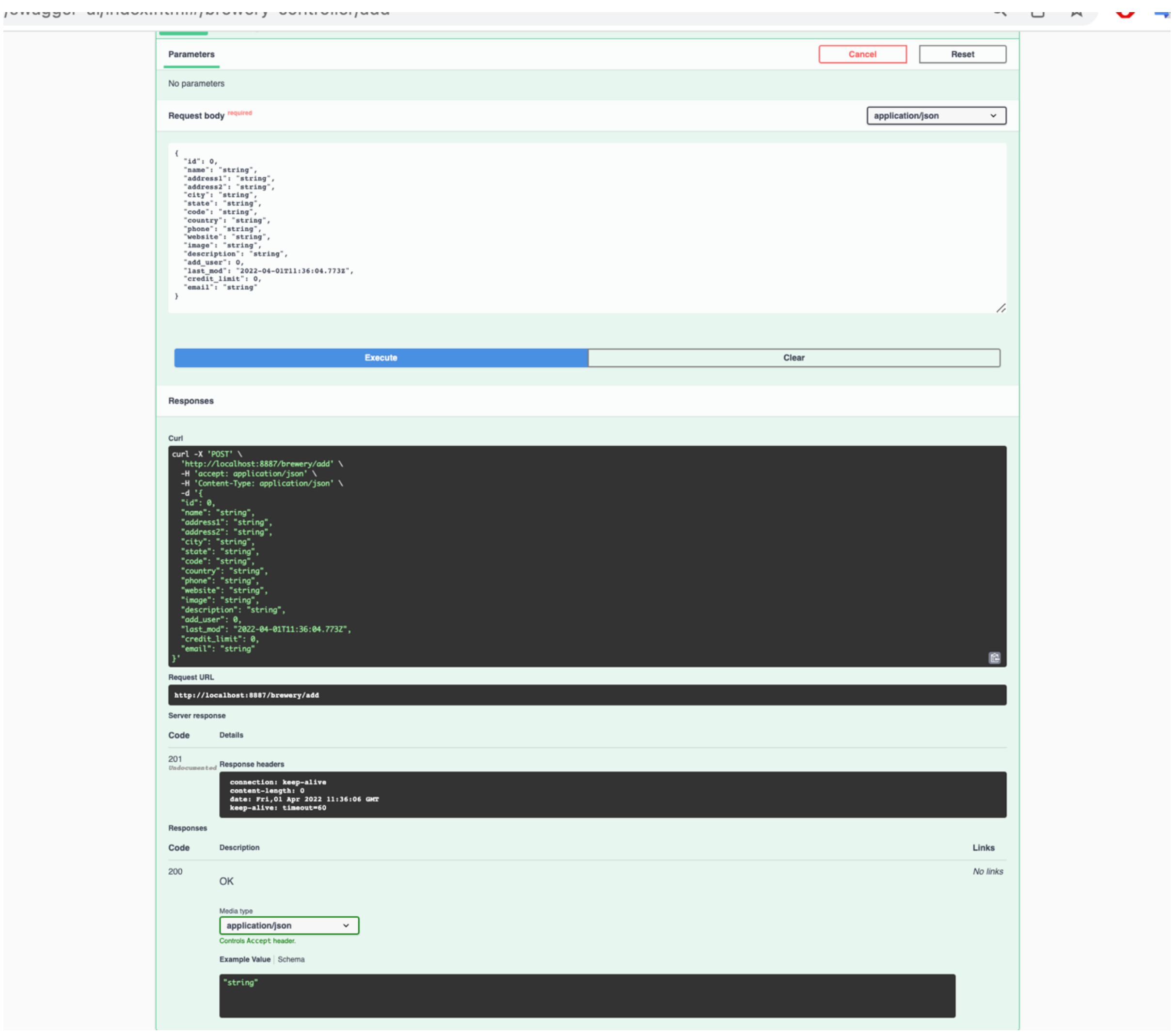
Controls Accept header.

Example Value | Schema

```
"string"
```

Brewery ADD Feature

http://localhost:8887/swagger-ui/index.html#/brewery-controller/add



No parameters

Request body required

application/json

```
{
  "id": 0,
  "name": "string",
  "address1": "string",
  "address2": "string",
  "city": "string",
  "state": "string",
  "code": "string",
  "country": "string",
  "phone": "string",
  "website": "string",
  "image": "string",
  "description": "string",
  "add_user": 0,
  "last_mod": "2022-04-01T11:36:04.773Z",
  "credit_limit": 0,
  "email": "string"
}
```

Curl

```
curl -X 'POST' \
  'http://localhost:8887/brewery/add' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "id": 0,
  "name": "string",
  "address1": "string",
  "address2": "string",
  "city": "string",
  "state": "string",
  "code": "string",
  "country": "string",
  "phone": "string",
  "website": "string",
  "image": "string",
  "description": "string",
  "add_user": 0,
  "last_mod": "2022-04-01T11:36:04.773Z",
  "credit_limit": 0,
  "email": "string"
}'
```

Request URL

```
http://localhost:8887/brewery/add
```

Server response

Code	Details
201 Undocumented	Response headers

```
connection: keep-alive
content-length: 0
date: Fri,01 Apr 2022 11:36:06 GMT
keep-alive: timeout=60
```

Responses

Code	Description	Links
200	OK	No links

Media type: application/json

Controls Accept header.

Example Value | Schema

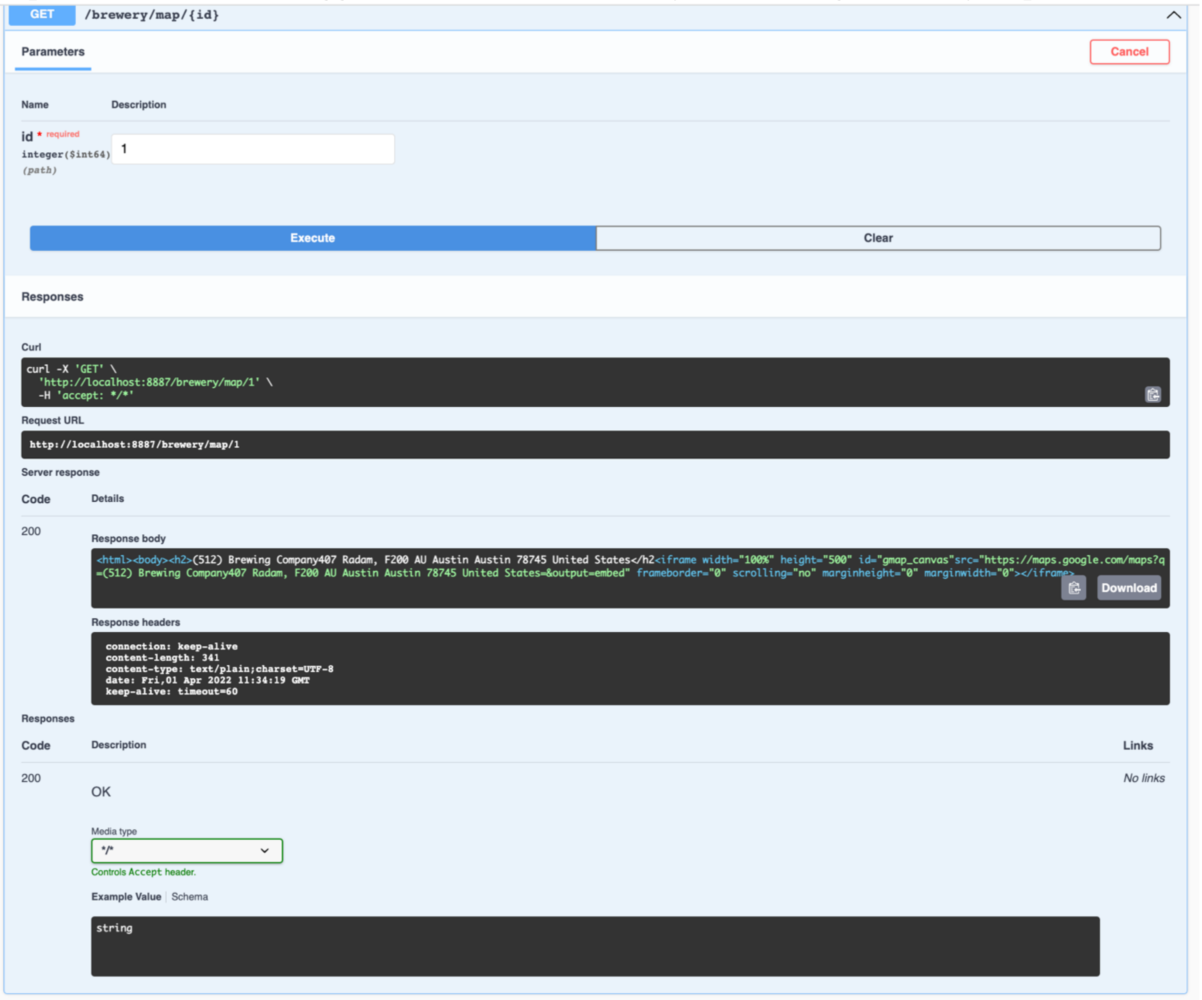
```
"string"
```

Brewery DELETE Feature

Brewery PUT Feature

Brewery plotted on a Map

http://localhost:8887/swagger-ui/index.html#/brewery-controller/getBreweryMap



`/brewery/map/{id}`

Name	Description
id * required `integer($int64)` *(path)*	1

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:8887/brewery/map/1' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:8887/brewery/map/1
```

Server response

Code	Details
200	Response body (below)

Response body

```
<html><body><h2>(512) Brewing Company407 Radam, F200 AU Austin Austin 78745 United States</h2<iframe width="100%" height="500" id="gmap_canvas"src="https://maps.google.com/maps?q
=(512) Brewing Company407 Radam, F200 AU Austin Austin 78745 United States=&output=embed" frameborder="0" scrolling="no" marginheight="0" marginwidth="0"></iframe>
```

Response headers

```
connection: keep-alive
content-length: 341
content-type: text/plain;charset=UTF-8
date: Fri,01 Apr 2022 11:34:19 GMT
keep-alive: timeout=60
```

Responses

Code	Description	Links
200	OK	*No links*

Media type: `*/*`

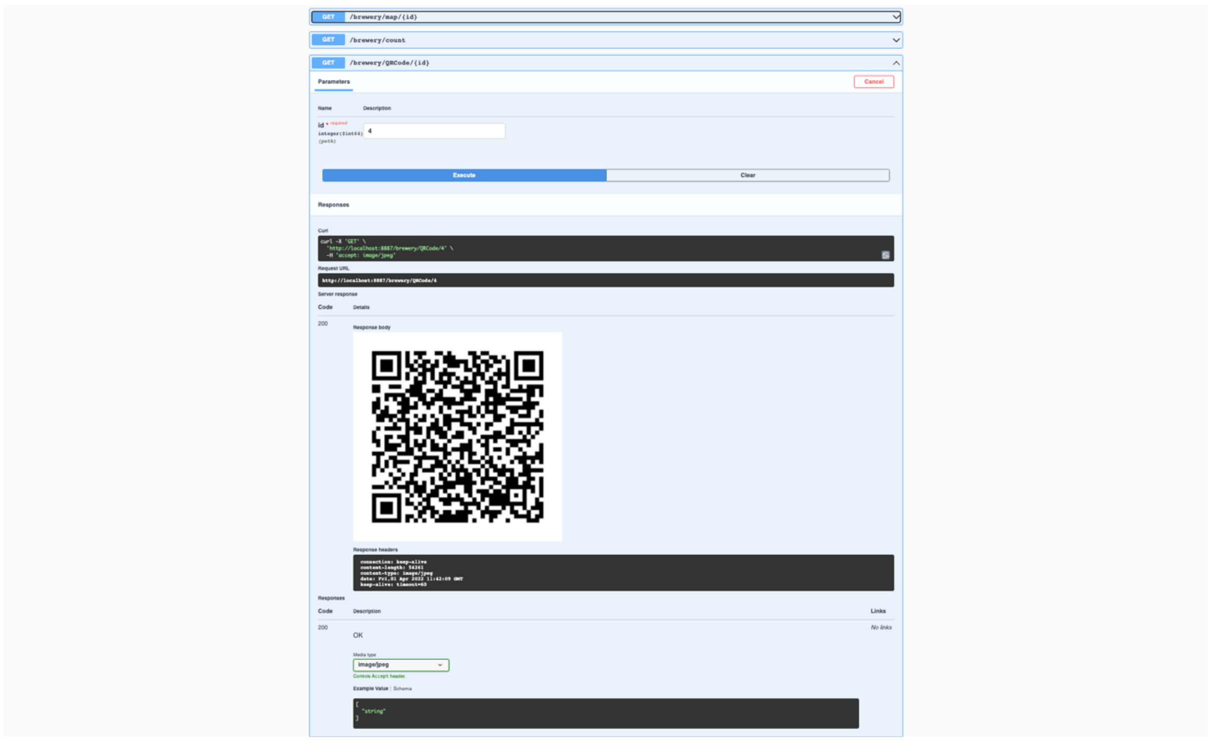
Controls Accept header.

Example Value | Schema

```
string
```

QR Code containing a contact for a brewery

Link: http://localhost:8888/brewery/QRCode/1



Curl

```
curl -X 'GET' \
  'http://localhost:8887/brewery/QRCode/4' \
  -H 'accept: image/jpeg'
```

Request URL

```
http://localhost:8887/brewery/QRCode/4
```

Server response

Code	Details
200	Response body

Response headers

```
connection: keep-alive
content-length: 54261
content-type: image/jpeg
date: Fri,01 Apr 2022 11:42:09 GMT
keep-alive: timeout=60
```

Responses

Code	Description	Links
200	OK	*No links*

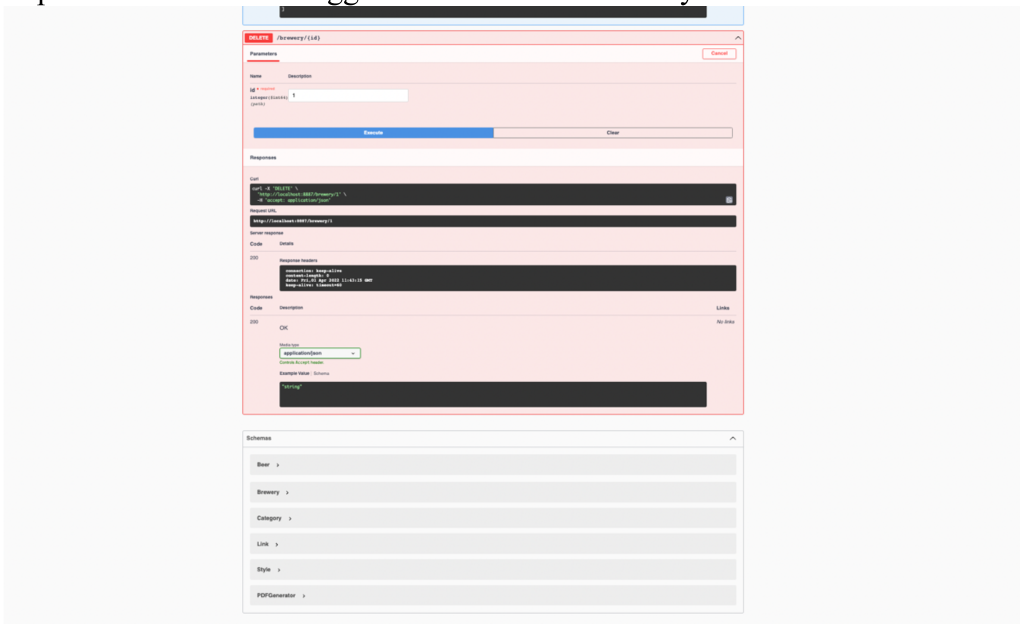
Media type: image/jpeg

Controls Accept header.

Example Value | Schema

```
[
  "string"
]
```

http://localhost:8887/swagger-ui/index.html#/brewery-controller/delete



DELETE /brewery/{id}

Parameters

Name	Description
id * required integer($int64) (path)	1

Responses

Curl

```
curl -X 'DELETE' \
  'http://localhost:8887/brewery/1' \
  -H 'accept: application/json'
```

Request URL

```
http://localhost:8887/brewery/1
```

Server response

Code	Details
200	Response headers

```
connection: keep-alive
content-length: 0
date: Fri,01 Apr 2022 11:43:15 GMT
keep-alive: timeout=60
```

Responses

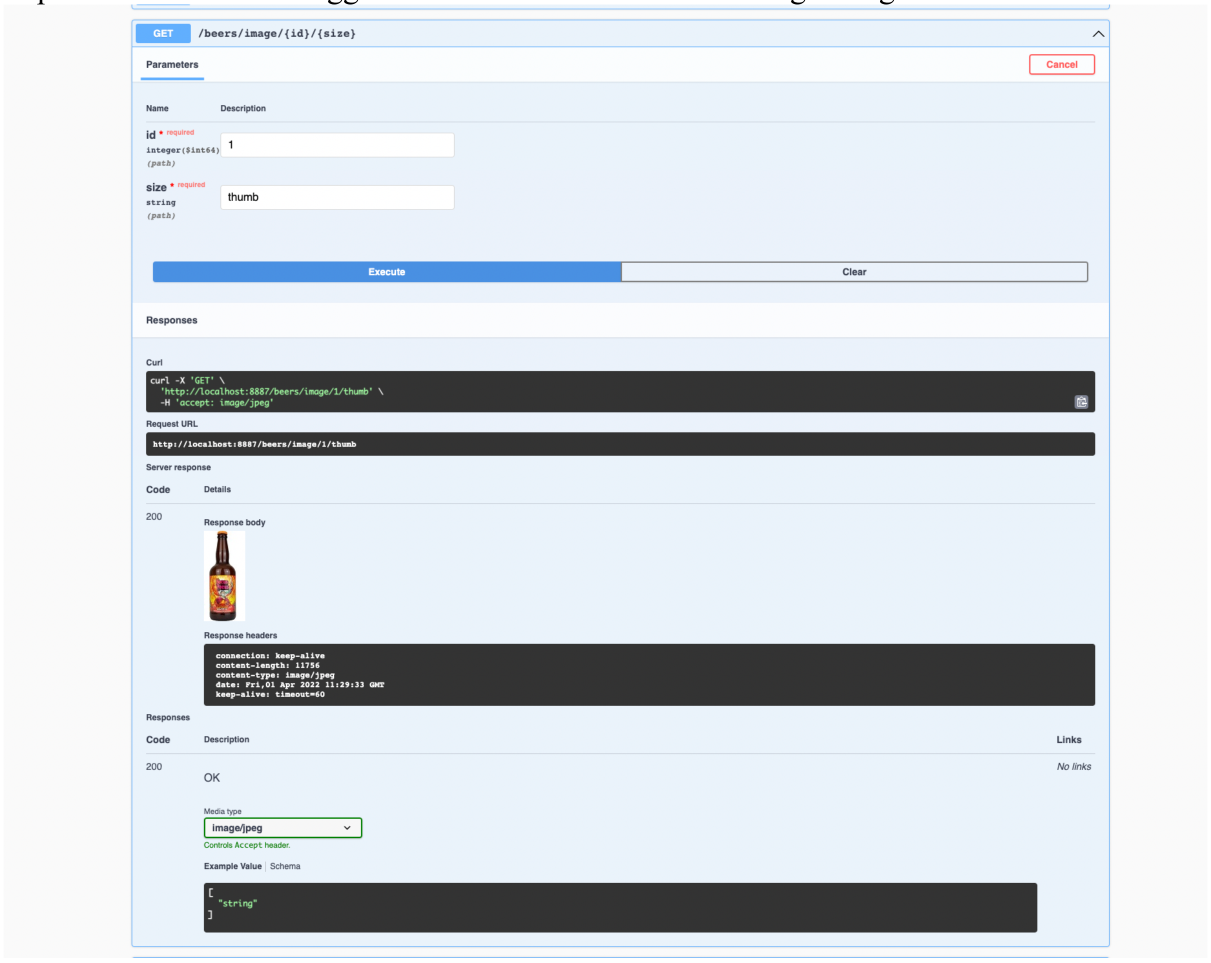
Code	Description	Links
200	OK Media type: application/json Controls Accept header. Example Value | Schema	*No links*

```
"string"
```

Schemas

- Beer
- Brewery
- Category
- Link
- Style
- PDFGenerator

http://localhost:8887/swagger-ui/index.html#/beer-controller/getImagesOfBeer



GET /beers/image/{id}/{size}

Parameters

Name	Description
id * required integer($int64) (path)	1
size * required string (path)	thumb

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:8887/beers/image/1/thumb' \
  -H 'accept: image/jpeg'
```

Request URL

```
http://localhost:8887/beers/image/1/thumb
```

Server response

Code	Details
200	Response body Response headers

```
connection: keep-alive
content-length: 11756
content-type: image/jpeg
date: Fri,01 Apr 2022 11:29:33 GMT
keep-alive: timeout=60
```

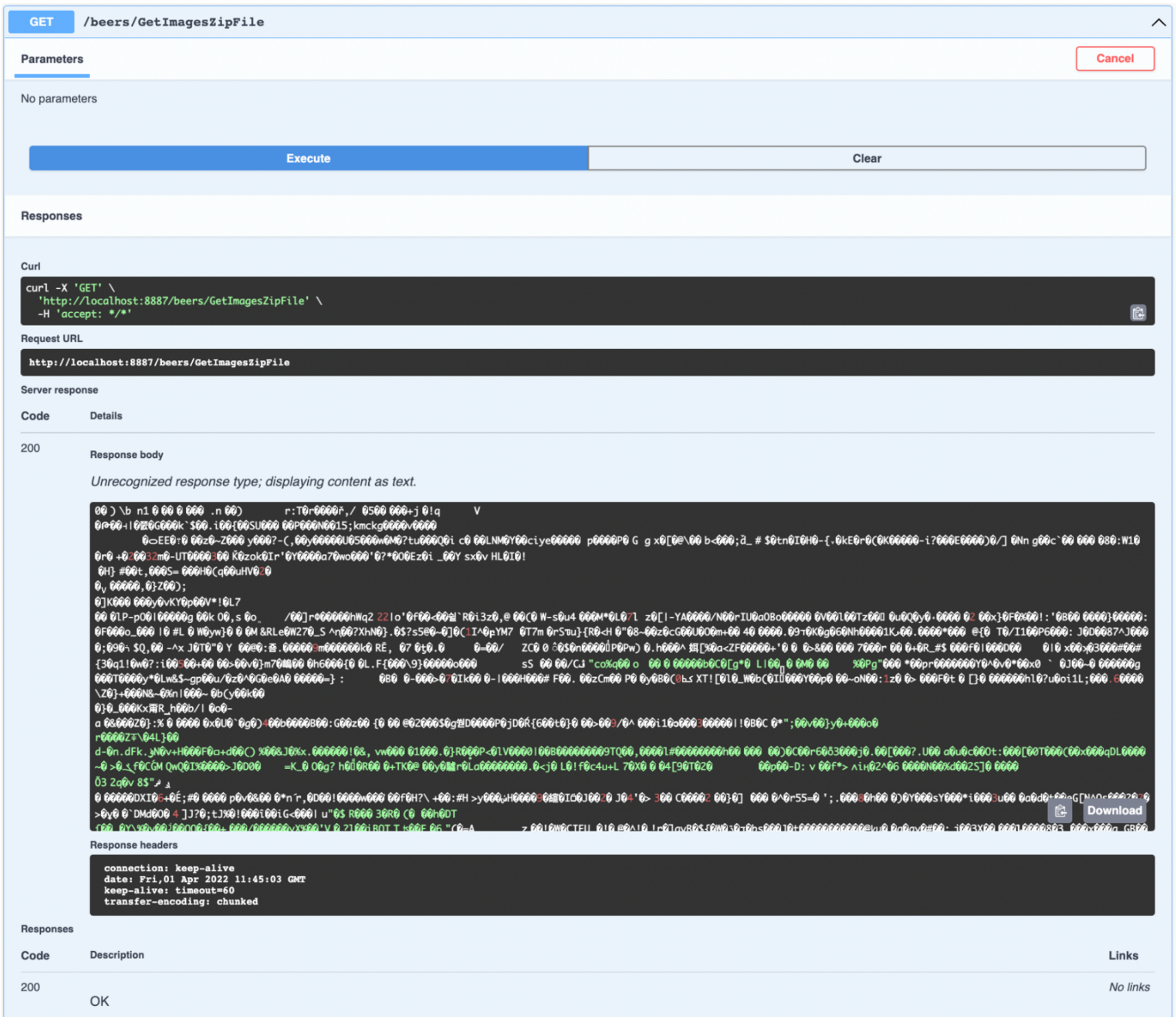
Responses

Code	Description	Links
200	OK Media type: image/jpeg Controls Accept header. Example Value | Schema	*No links*

```
[
  "string"
]
```

A compressed file containing all beer images

http://localhost:8887/swagger-ui/index.html#/beer-controller/zipImageDownload



GET /beers/GetImagesZipFile

Parameters

No parameters

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:8887/beers/GetImagesZipFile' \
  -H 'accept: */*'
```

Request URL

```
http://localhost:8887/beers/GetImagesZipFile
```

Server response

Code	Details
200	Response body *Unrecognized response type; displaying content as text.*

```
[illegible]
```

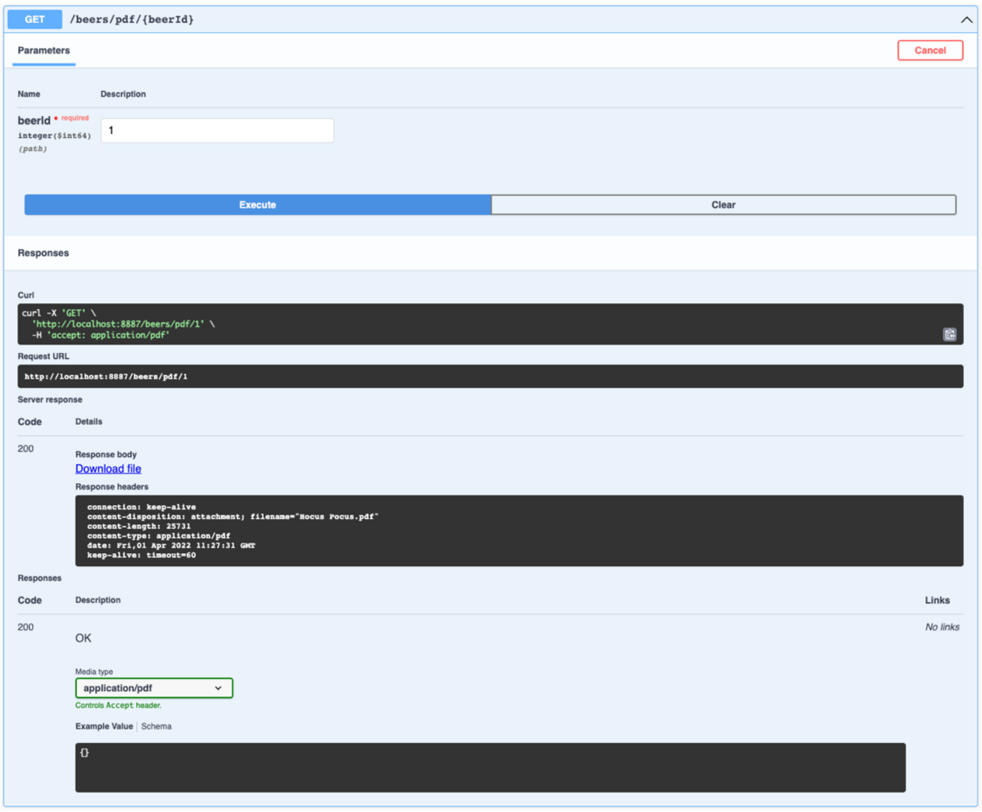
Response headers

```
connection: keep-alive
date: Fri,01 Apr 2022 11:45:03 GMT
keep-alive: timeout=60
transfer-encoding: chunked
```

Responses

Code	Description	Links
200	OK	*No links*

Return a PDF



Curl

```
curl -X 'GET' \
  'http://localhost:8887/beers/pdf/1' \
  -H 'accept: application/pdf'
```

Request URL

```
http://localhost:8887/beers/pdf/1
```

Server response

Code Details

200

Response body

Download file

Response headers

```
connection: keep-alive
content-disposition: attachment; filename="Hocus Pocus.pdf"
content-length: 25731
content-type: application/pdf
date: Fri,01 Apr 2022 11:27:31 GMT
keep-alive: timeout=60
```

Responses

Code	Description	Links
200	OK	*No links*

Media type: application/pdf

Controls Accept header.

Example Value | Schema

```
{}
```

Self-Evaluation

When developing the Rest API for this assignment I uncovered some strengths and weaknesses of mine. Below are a few of the main strengths and weaknesses, I have discovered. A strength of my API would be the learning of building varieties of different API. I have created many API for example Get id API, Delete API, Post API, PUT API, Get QR Code API using ZXing, Get Map Location API, Get Images API, Compress Images into file API and Create PDF as well as learn how to use HATEOAS Principles . I also learned the how to different libraries like using MeCard to format the QR code so it add to contacts page when scanned by a phone.

A weakness of my API would have to be lack of security. There is no proper protection of the data and from a security standpoint I would have to say my API is vulnerable. As I have not implemented any security to the system. It wouldn't be hard for some to hack or to use a software attacks, these attacks can would have a maliciously effect and could affect API leaving to an negative impact. Another weakness I had is with creating the PDF as I was mostly unable to figure out to get the style_id and cat_id as they both were Integers, for the longest time. The wat I solved the solution was by changing them from a Integer to a long.
I also had trouble with creating the QR before using MeCard as I was unable to get it add the brewery to my contacts book on the phone.
Overall, I believe I have learned about the general strengths and weaknesses when it comes to the creation of API. I think this assignment has helped me understand the potential uses of REST API and in what scenarios the development of such API would be useful.

Benchmarking and Enhancements

The development of an API can bring numerous benefits to any development project. One of the main benefits an API can bring is the convenience of automation. . The creation of APIs can lead to alternative and innovative methods which can make a project stand out and perform better than similar systems. There is lots of techniques that can be applied when creating API which occasionally may lead to outside the box ideas.

The first advantage of the API is that there is an advantage of the business partner because earlier tickets could be booked from the official website itself. Now tickets can be booked through many websites. Due to which airlines railways movies are also benefited by the owners and the website from which the book is also benefited from the commission. Sites like (Paytm, free-charge, make my trip yatra, etc) are there and the customer also benefits.
The second benefit is that we do not have to write any information in the website or software again. Nor do any updates have to be done as the API automatic works. Therefore, whatever data I have on the website, the automatic API also provides the same data to the rest of the website.
The best thing about API is its amazing feature of social equality. Whenever there's information to be shared with all the citizens of the state, API shares it with every person and not selected people from few cities or towns. However, if this responsibility were to be given to another system, things would have been completely different. For this to happen, you must incorporate a suitable API into the system. Google popular API to get a list of all top-notch instances available.