Python Deployment With Flask

Running the project

[**Note**: I have maintain my project in both '.**py** and .**ipyb** file format . '**cab_fare_project1.py**' file for run in any **command promt** and '**Cab_fare_project1**.**ipyb'** run in **jupyter** only but I have created it in most understandable in nature]

1. Ensure that you are in the project home directory (i.e here in '**Deployment in python with Flask**' folder). Create the machine learning model by running below command -

   python cab_fare_model.py

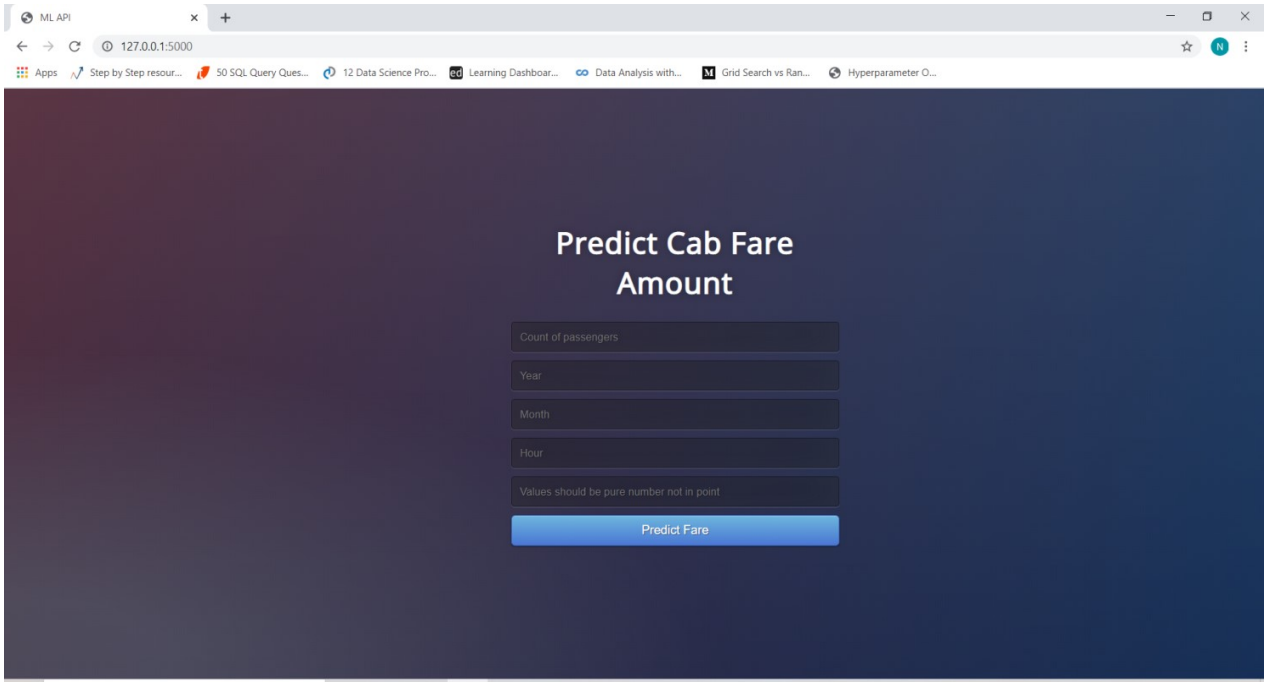
   This would create a serialized version of our model into a file model.pkl

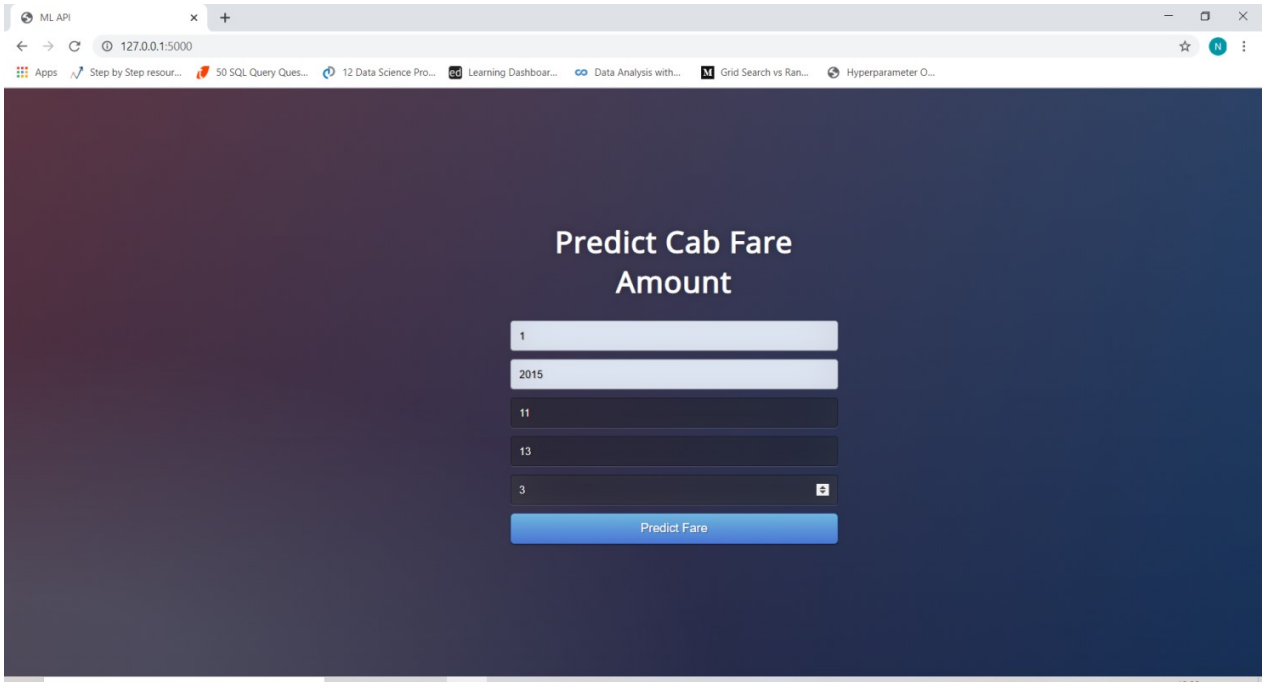
2. Run **app.py** using below command to start Flask API

   python app.py

   By default, flask will run on port 5000.

3. Navigate to URL http://localhost:5000


ML API
127.0.0.1:5000
Apps
Step by Step resour...
50 SQL Query Ques...
12 Data Science Pro...
Learning Dashboar...
Data Analysis with...
Grid Search vs Ran...
Hyperparameter O...
Predict Cab Fare Amount
Count of passengers
Year
Month
Hour
Values should be pure number not in point
Predict Fare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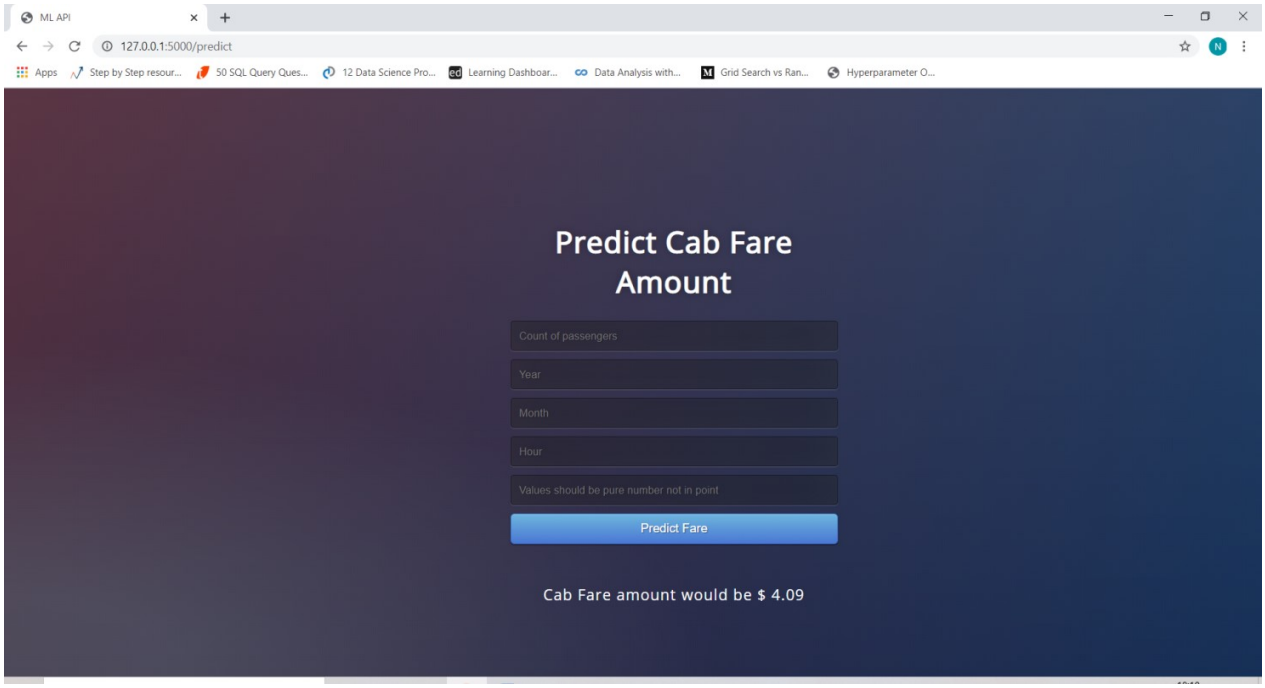
Grid Search vs Ran...
Hyperparameter O...
Predict Cab Fare Amount
1
2015
11
13
3
Predict Fare


ML API
127.0.0.1:5000/predict
Apps
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Learning Dashboar...
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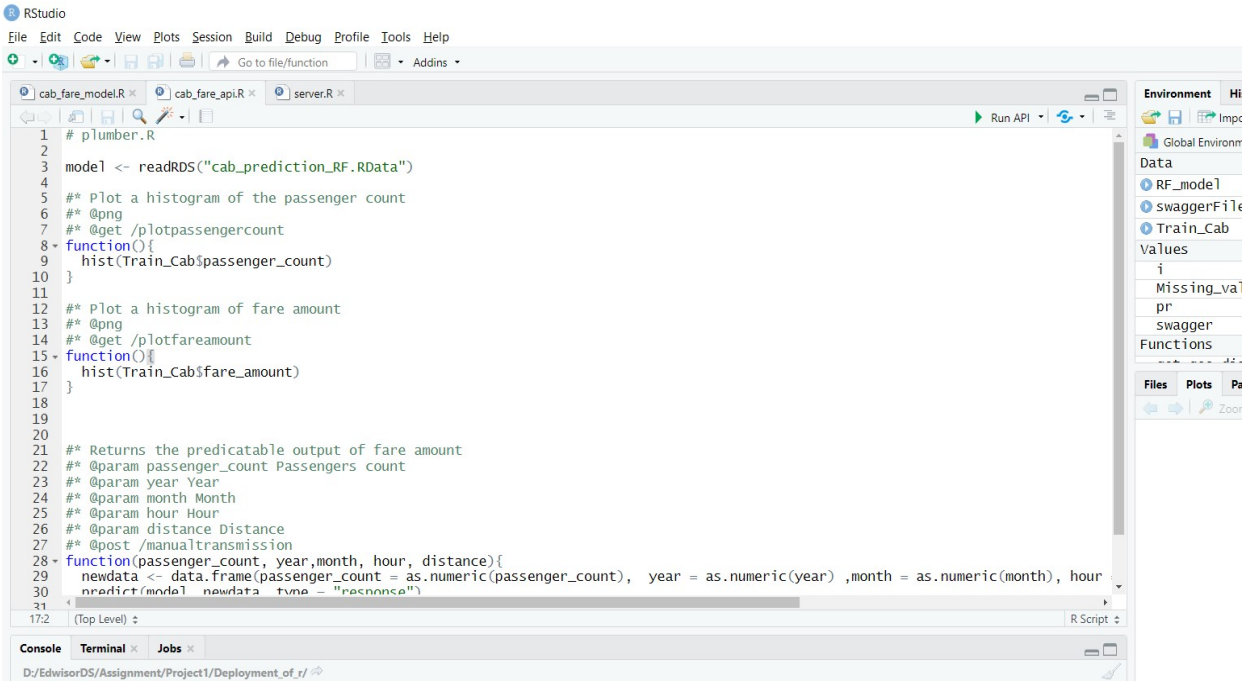
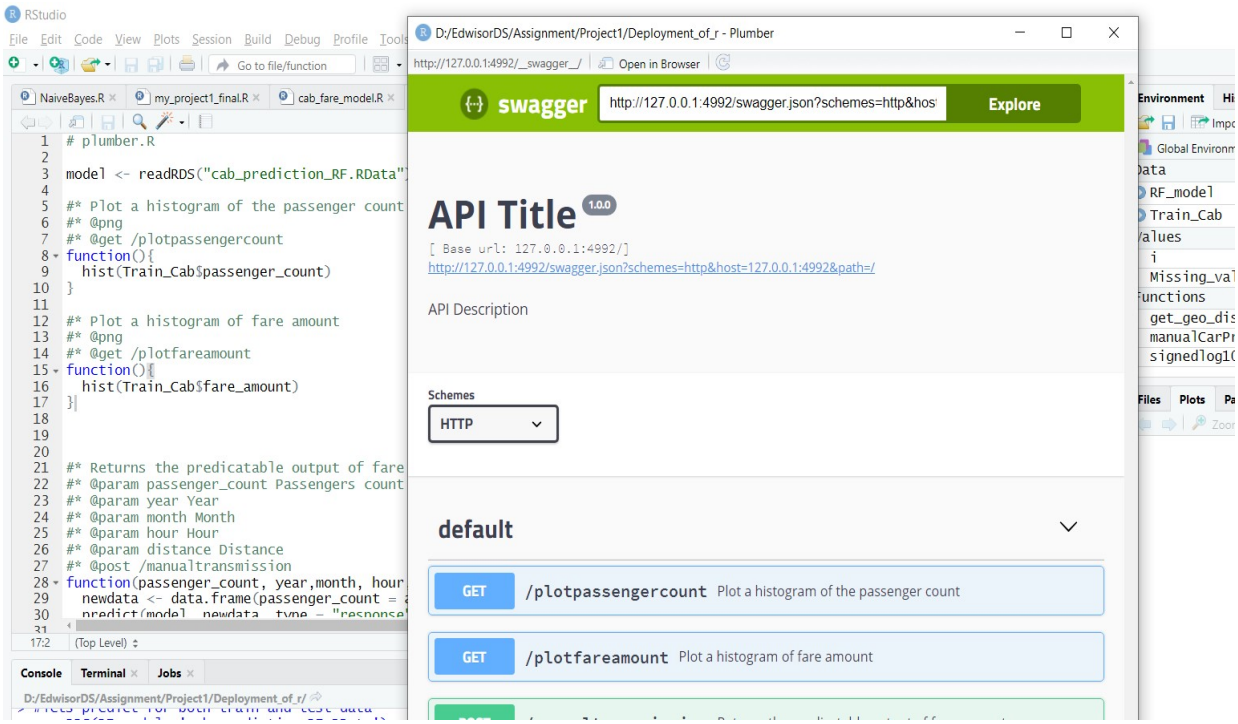
Grid Search vs Ran...
Hyperparameter O...
Predict Cab Fare Amount
Count of passengers
Year
Month
Hour
Values should be pure number not in point
Predict Fare
Cab Fare amount would be $ 4.09

R Deployment with Plumber

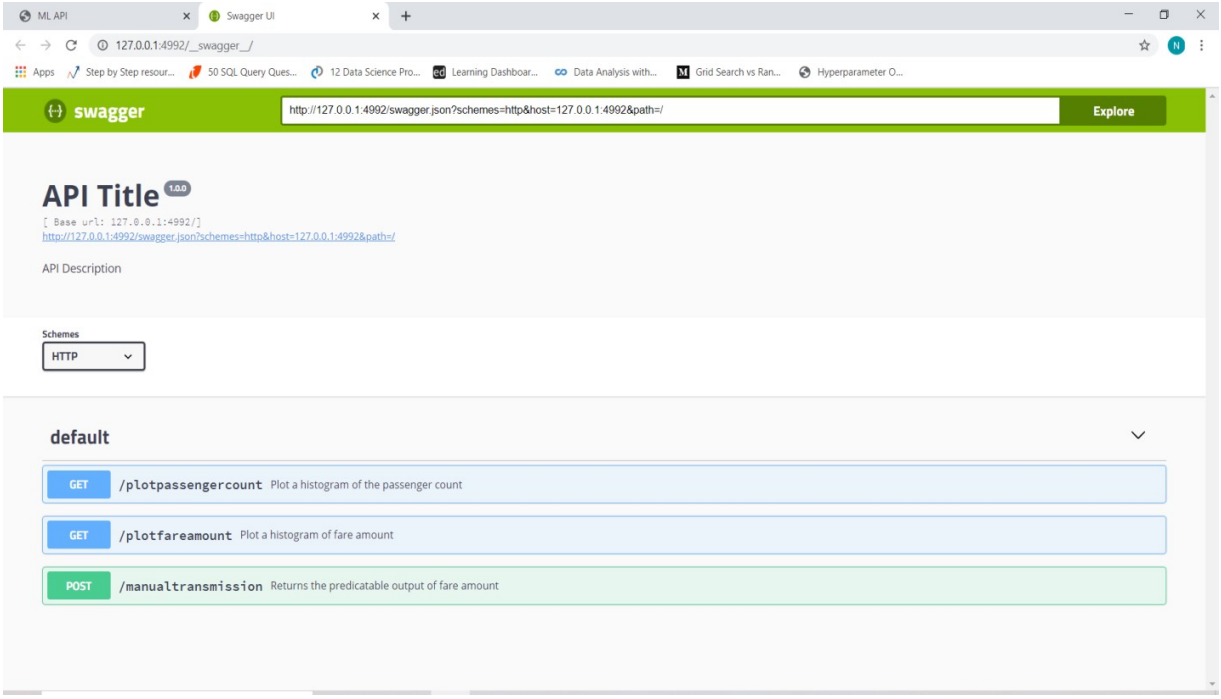
1. We have maintain three basic files '**cab_fare_model.R',** '**cab_fare_api.R**' and **'server.R'** for R deployment containing in folder '**Deployment_of_R'**.
2. First run '**cab_fare_model.R**' file
3. Then you can run API by opening file '**cab_fare_api.R**' and then click on run api.



4. Which will open following window

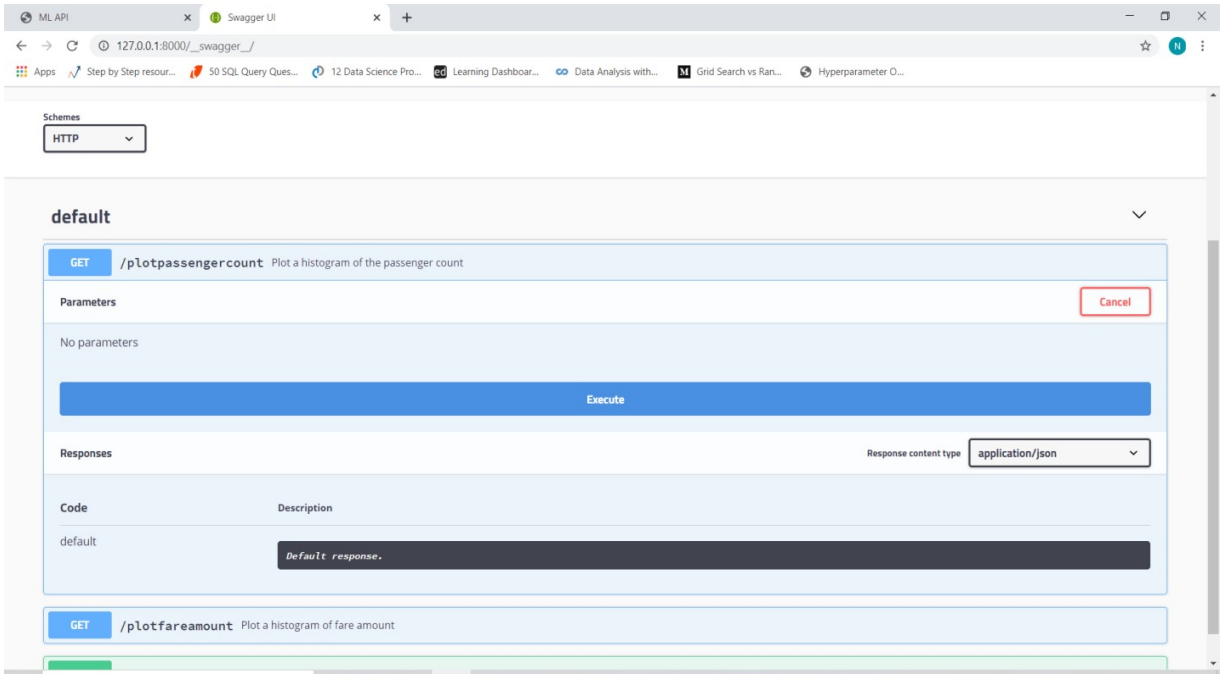


5. You can open it in browser by clicking on upper right side 'Open in Browser' or by going to link http://127.0.0.1:8000/__swagger__/

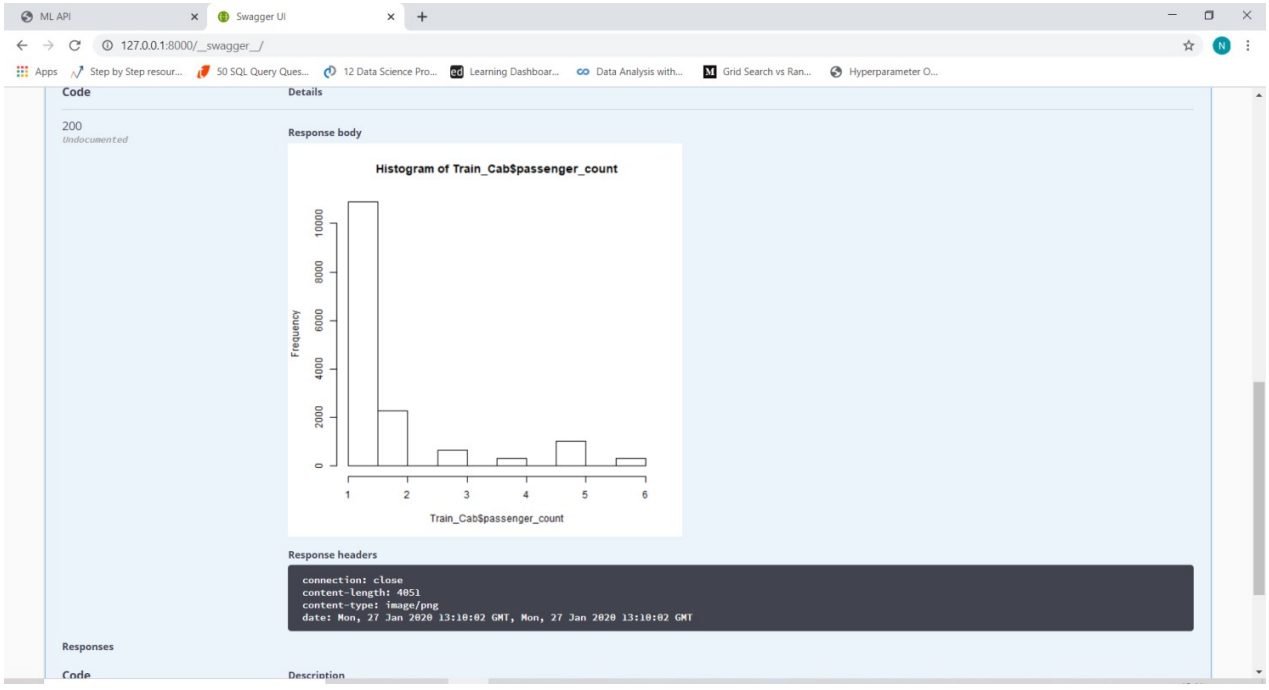


6. Now you can open one by one segment and see implementation.

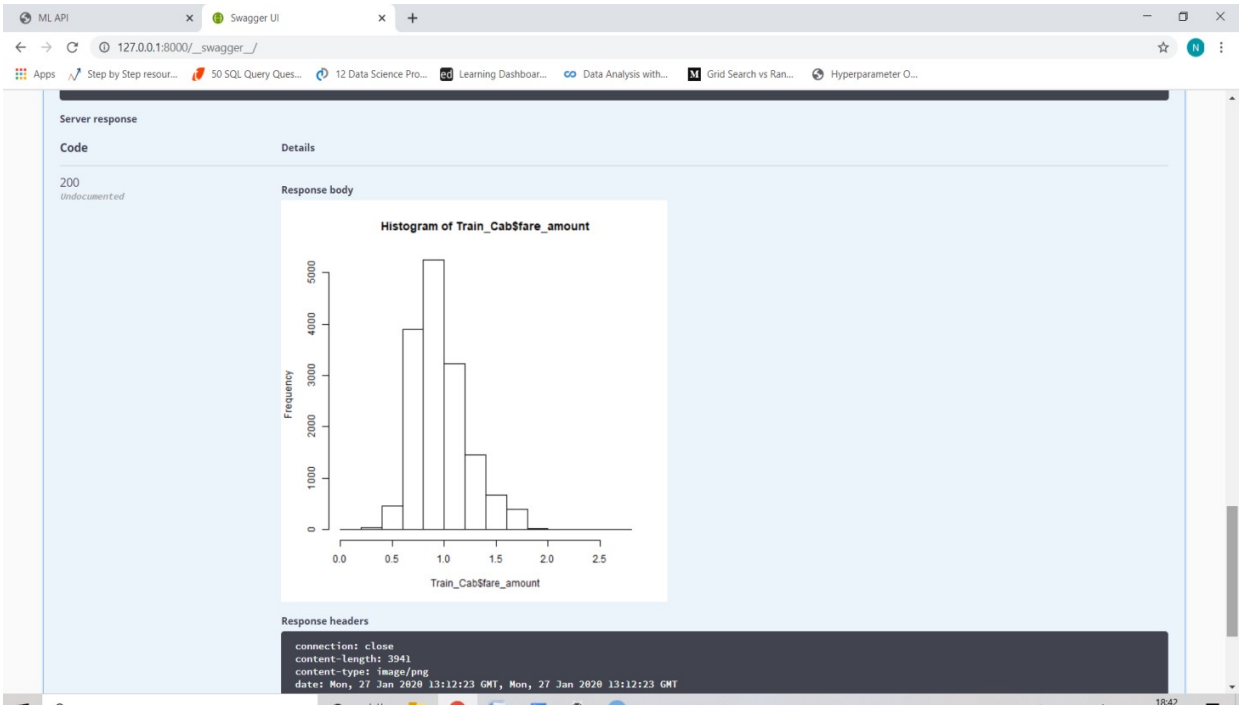
First click on '**Try it out**' option

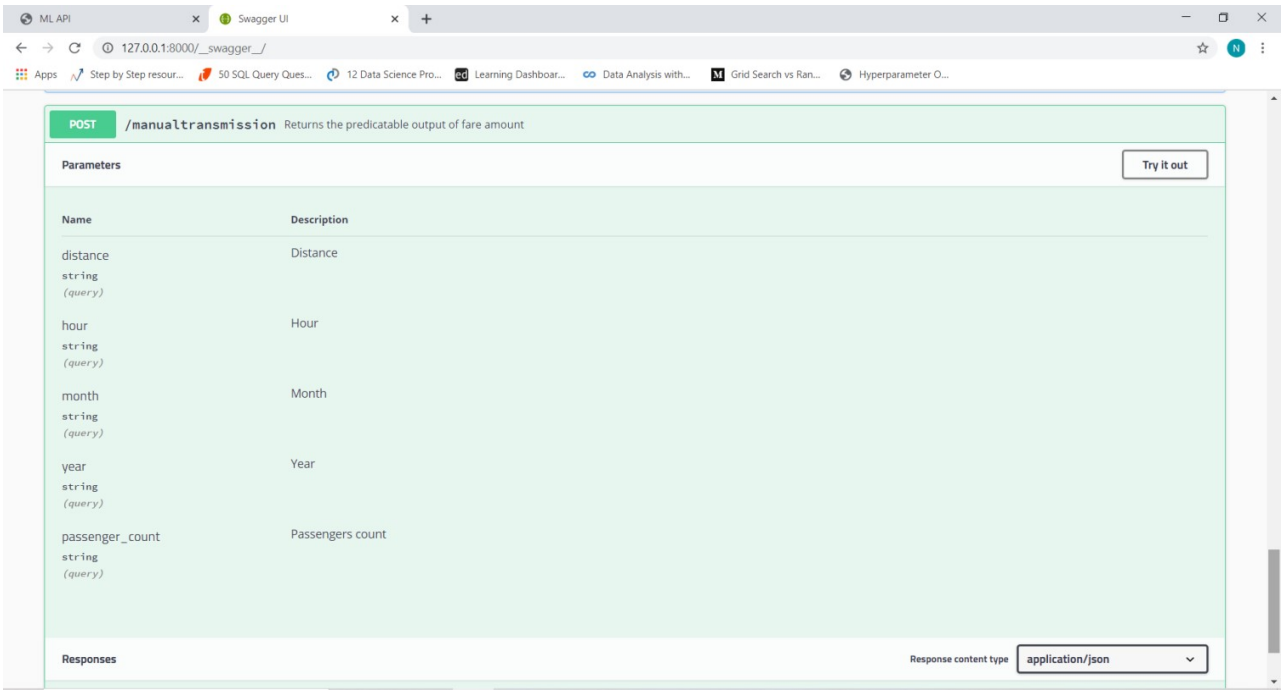


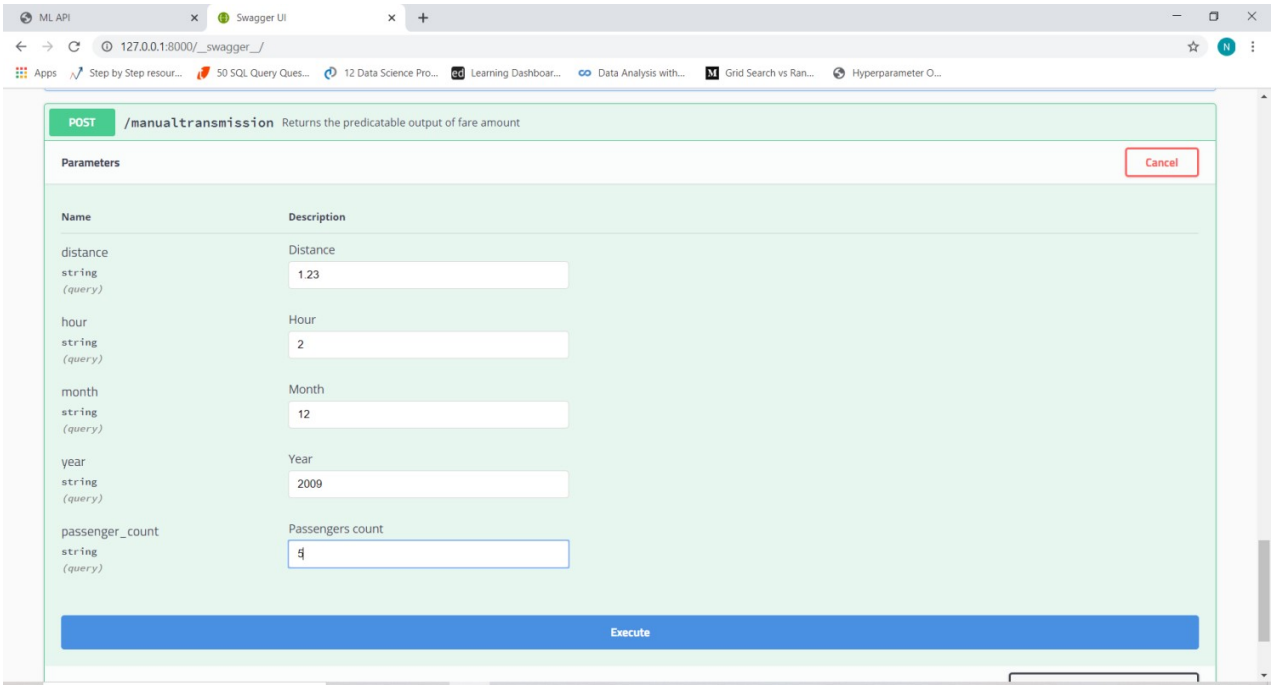
Then click on 'Execute' button. It will execute following



Similarly you can do it for all segment,


ML API
Swagger UI
127.0.0.1:8000/__swagger__/
Server response
Code
Details
200
Undocumented
Response body
Histogram of Train_Cab$fare_amount
Frequency
0
1000
2000
3000
4000
5000
0.0
0.5
1.0
1.5
2.0
2.5
Train_Cab$fare_amount
Response headers
connection: close
content-length: 3941
content-type: image/png
date: Mon, 27 Jan 2020 13:12:23 GMT, Mon, 27 Jan 2020 13:12:23 GMT


ML API
Swagger UI
127.0.0.1:8000/__swagger__/
POST
/manualtransmission
Returns the predicatable output of fare amount
Parameters
Try it out
Name
Description
distance
string
(query)
Distance
hour
string
(query)
Hour
month
string
(query)
Month
year
string
(query)
Year
passenger_count
string
(query)
Passengers count
Responses
Response content type
application/json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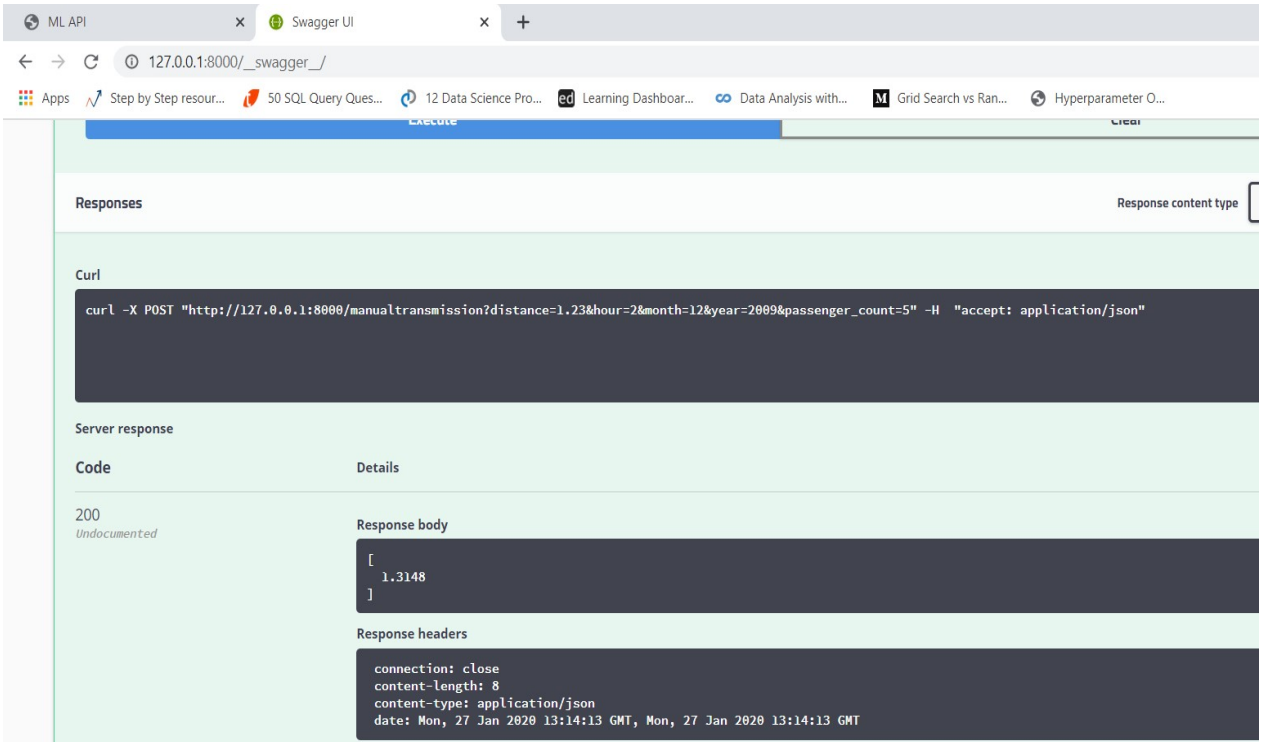
Grid Search vs Ran...
Hyperparameter O...
POST
/manualtransmission
Returns the predicatable output of fare amount
Parameters
Cancel
Name
Description
distance
string
(query)
Distance
1.23
hour
string
(query)
Hour
2
month
string
(query)
Month
12
year
string
(query)
Year
2009
passenger_count
string
(query)
Passengers count
5
Execute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Hyperparameter O...
Responses
Response content type
Curl
curl -X POST "http://127.0.0.1:8000/manualtransmission?distance=1.23&hour=2&month=12&year=2009&passenger_count=5" -H "accept: application/json"
Server response
Code
Details
200
Undocumented
Response body
[
1.3148
]
Response headers
connection: close
content-length: 8
content-type: application/json
date: Mon, 27 Jan 2020 13:14:13 GMT, Mon, 27 Jan 2020 13:14:13 GMT