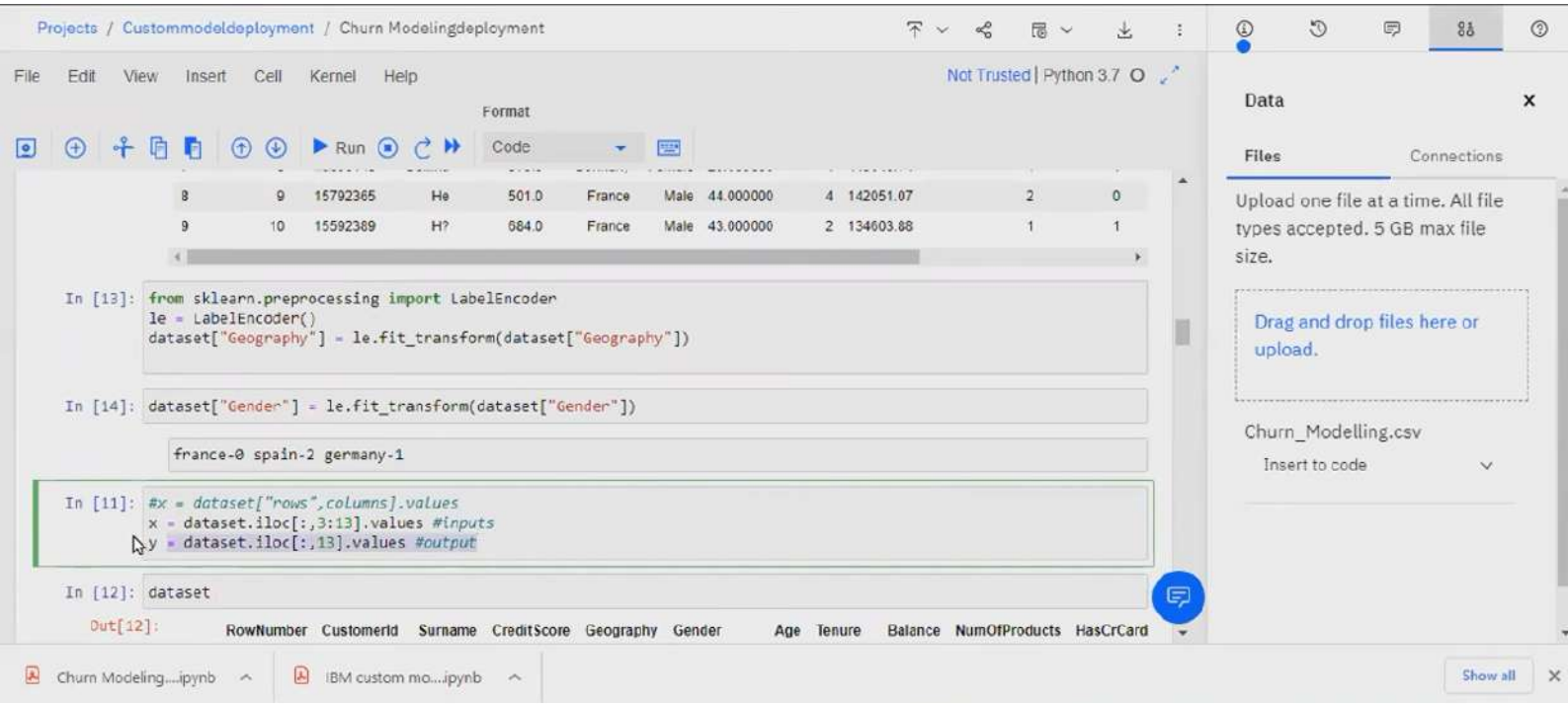
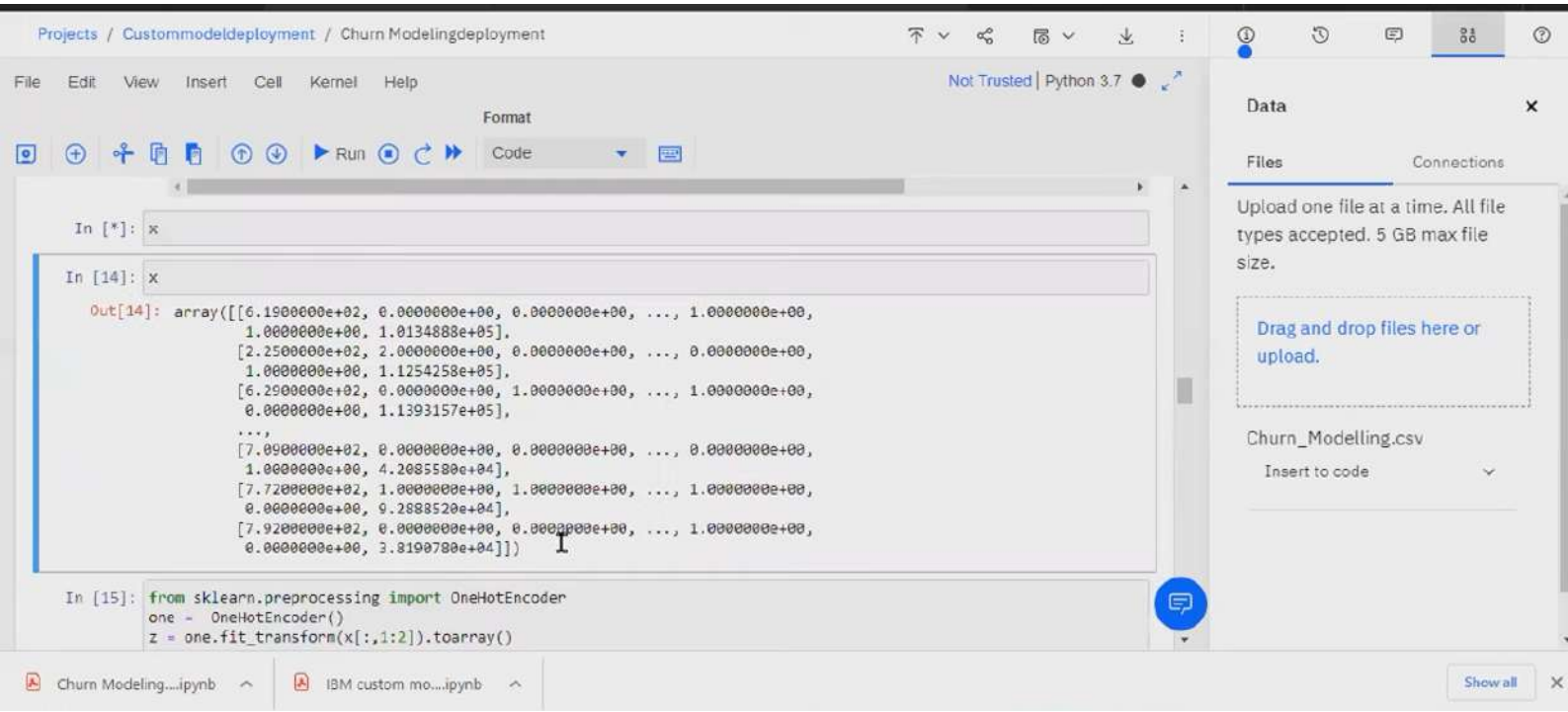
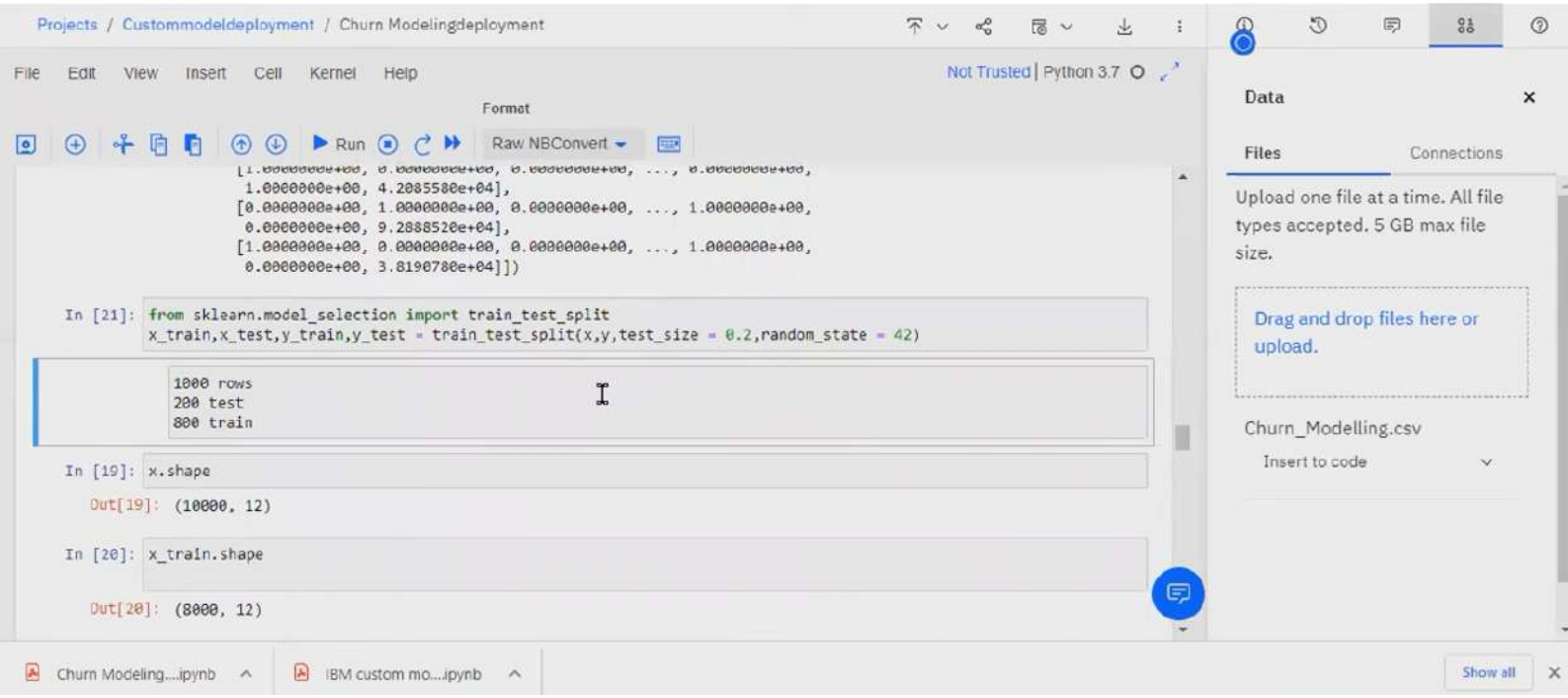
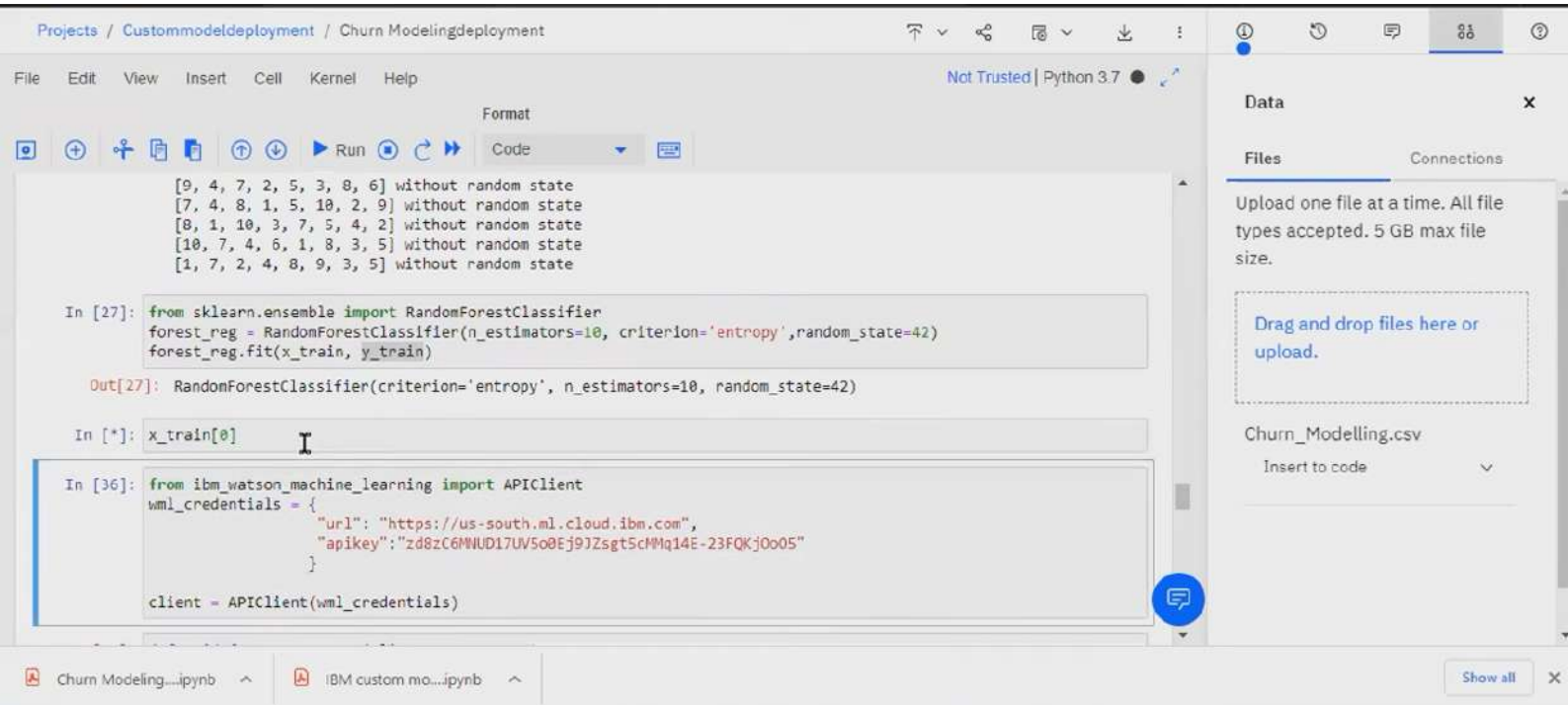
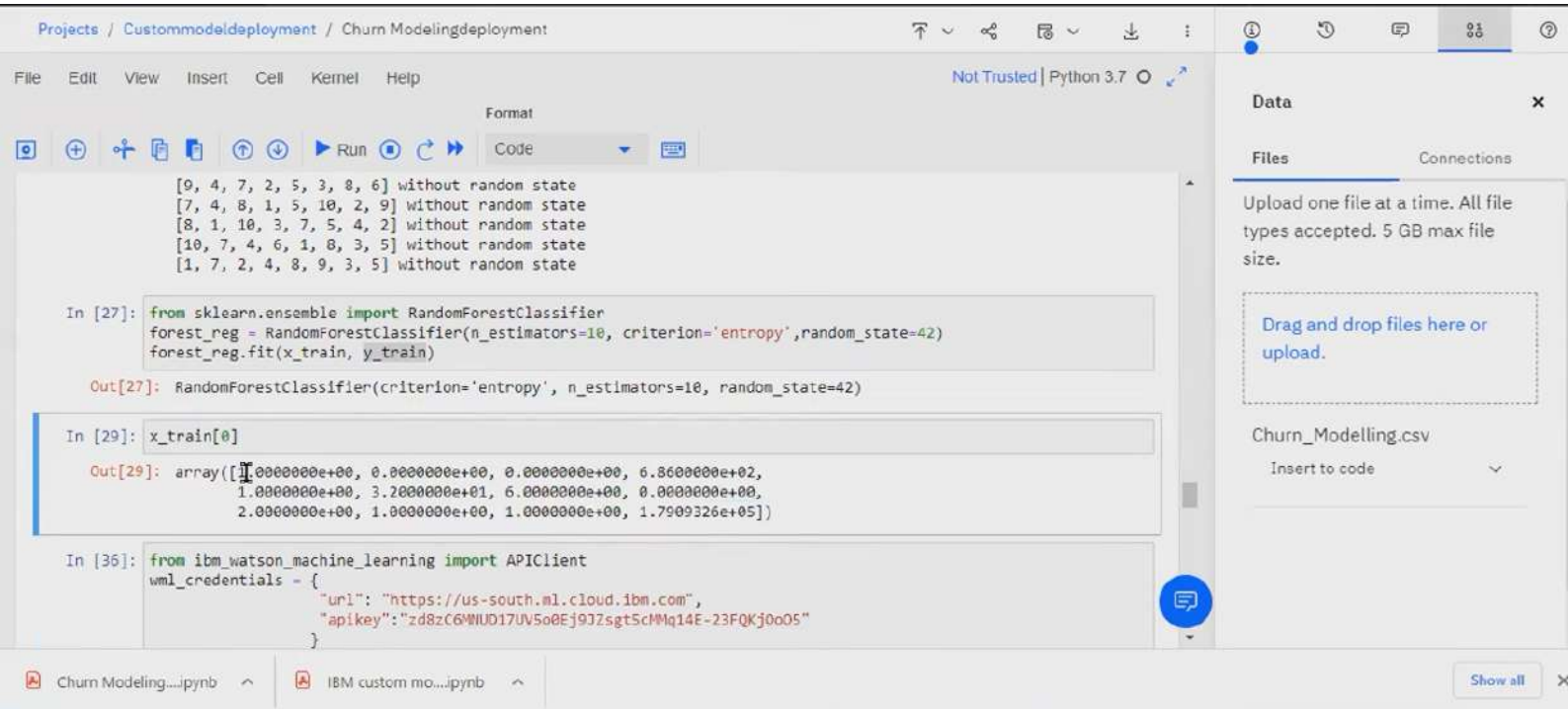
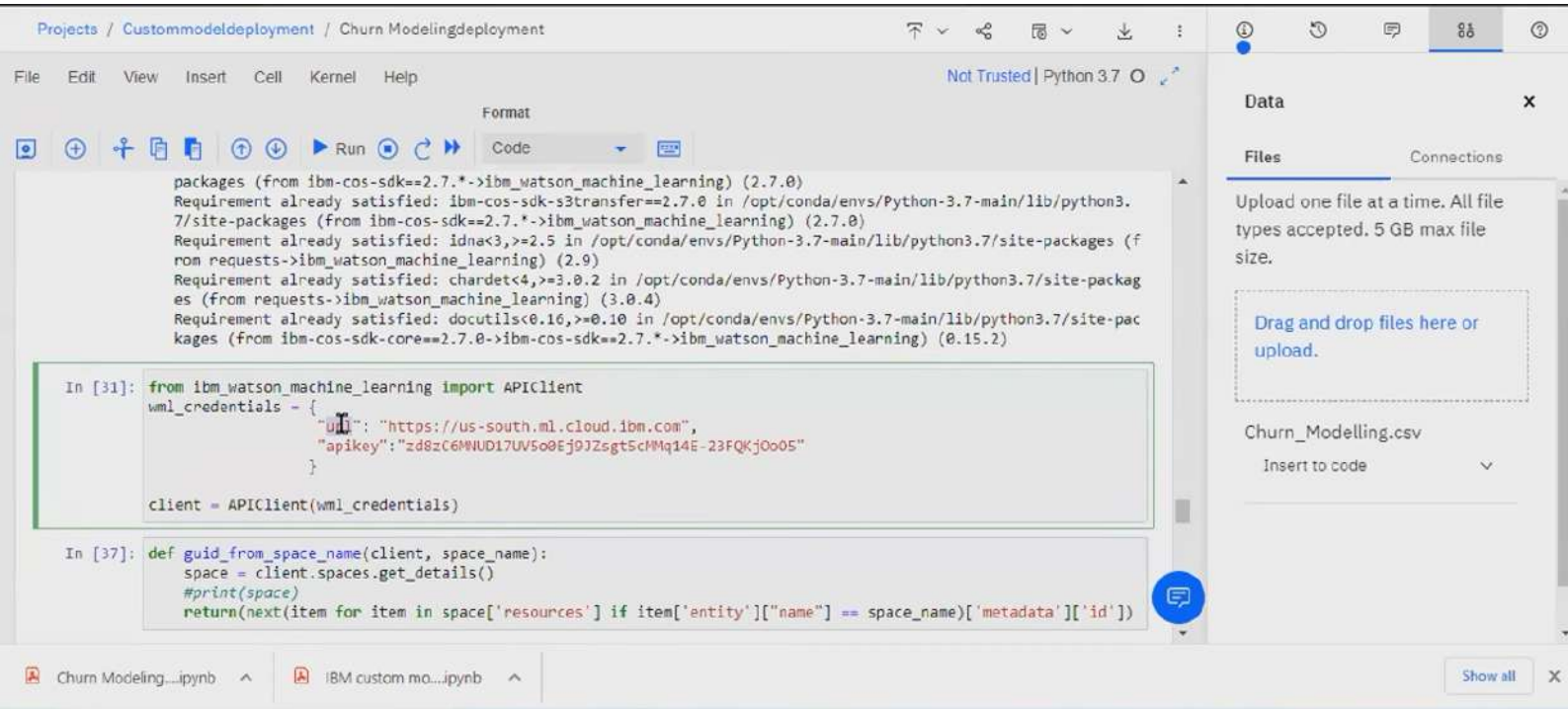

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Code
8 9 15792365 He 501.0 France Male 44.000000 4 142051.07 2 0
9 10 15592389 H? 684.0 France Male 43.000000 2 134603.88 1 1
In [13]:
from sklearn.preprocessing import LabelEncoder
le = LabelEncoder()
dataset["Geography"] = le.fit_transform(dataset["Geography"])
In [14]:
dataset["Gender"] = le.fit_transform(dataset["Gender"])
france-0 spain-2 germany-1
In [11]:
#x = dataset["rows",columns].values
x = dataset.iloc[:,3:13].values #inputs
y = dataset.iloc[:,13].values #output
In [12]:
dataset
Out[12]:
RowNumber CustomerId Surname CreditScore Geography Gender Age Tenure Balance NumOfProducts HasCrCard
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all

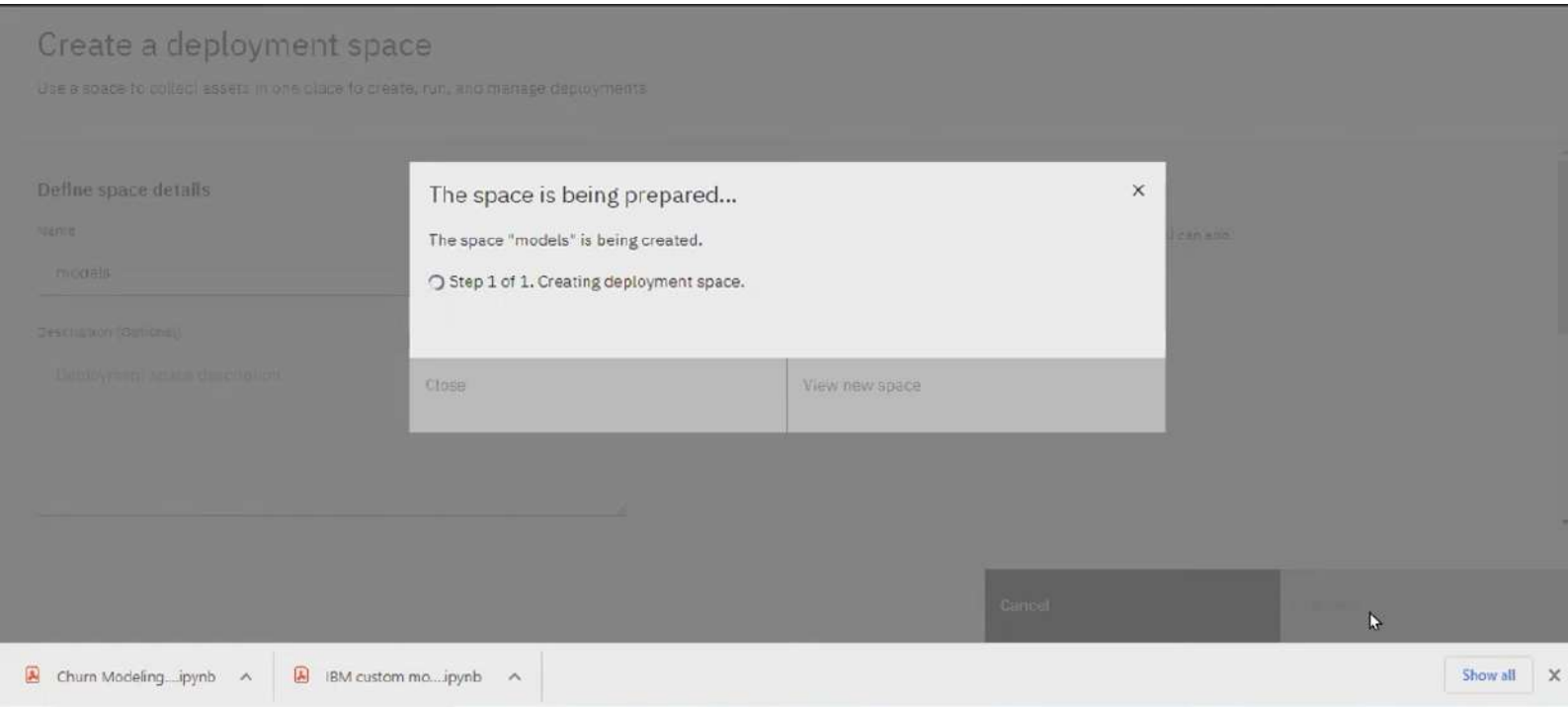

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Code
In [*]: x
In [14]: x
Out[14]: array([[6.1900000e+02, 0.0000000e+00, 0.0000000e+00, ..., 1.0000000e+00,
1.0000000e+00, 1.0134888e+05],
[2.2500000e+02, 2.0000000e+00, 0.0000000e+00, ..., 0.0000000e+00,
1.0000000e+00, 1.1254258e+05],
[6.2900000e+02, 0.0000000e+00, 1.0000000e+00, ..., 1.0000000e+00,
0.0000000e+00, 1.1393157e+05],
...,
[7.0900000e+02, 0.0000000e+00, 0.0000000e+00, ..., 0.0000000e+00,
1.0000000e+00, 4.2085580e+04],
[7.7200000e+02, 1.0000000e+00, 1.0000000e+00, ..., 1.0000000e+00,
0.0000000e+00, 9.2888520e+04],
[7.9200000e+02, 0.0000000e+00, 0.0000000e+00, ..., 1.0000000e+00,
0.0000000e+00, 3.8190780e+04]])
In [15]: from sklearn.preprocessing import OneHotEncoder
one = OneHotEncoder()
z = one.fit_transform(x[:,1:2]).toarray()
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all

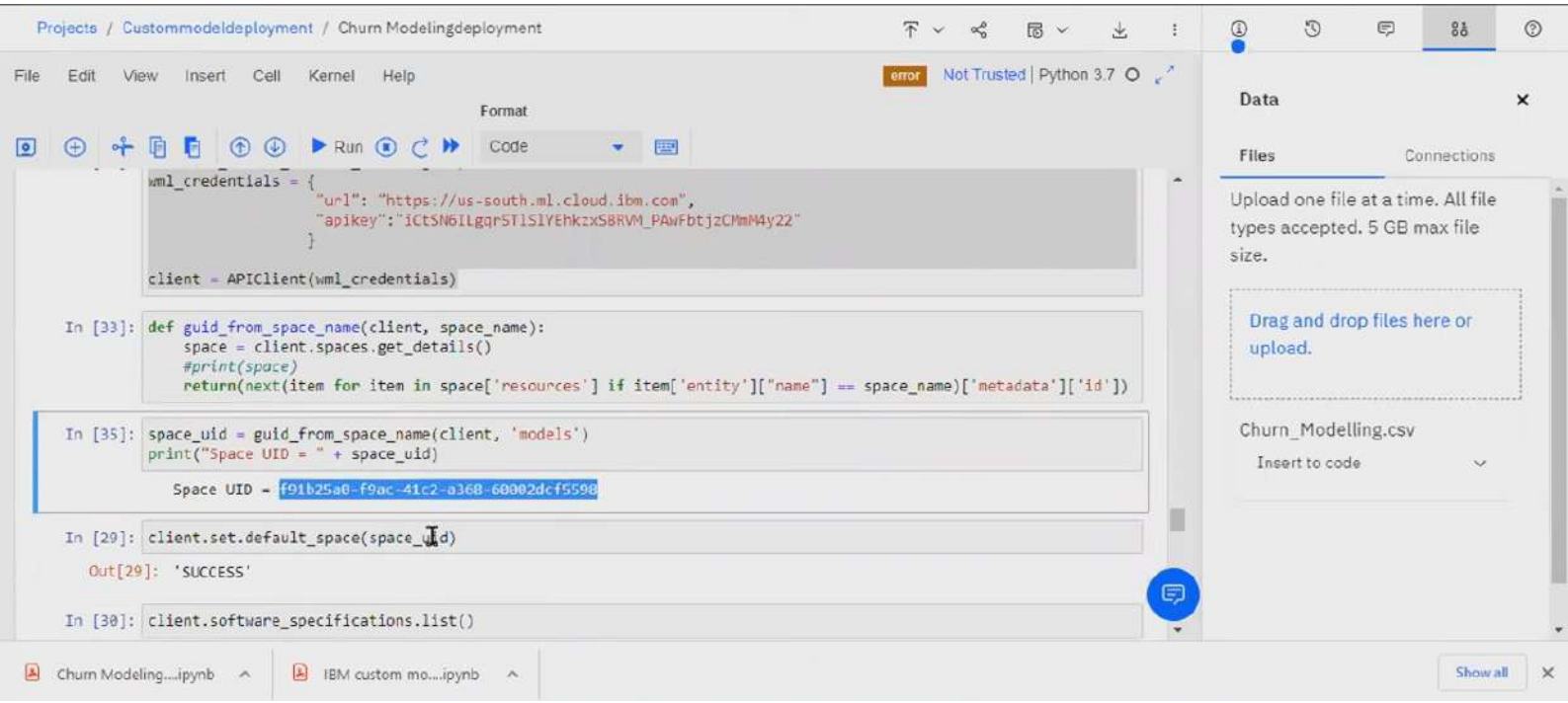

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Raw NBConvert
1.0000000e+00, 4.2085580e+04],
[0.0000000e+00, 1.0000000e+00, 0.0000000e+00, ..., 1.0000000e+00,
0.0000000e+00, 9.2888520e+04],
[1.0000000e+00, 0.0000000e+00, 0.0000000e+00, ..., 1.0000000e+00,
0.0000000e+00, 3.8190780e+04]])
In [21]: from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test = train_test_split(x,y,test_size = 0.2,random_state = 42)
1000 rows
200 test
800 train
In [19]: x.shape
Out[19]: (10000, 12)
In [20]: x_train.shape
Out[20]: (8000, 12)
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all

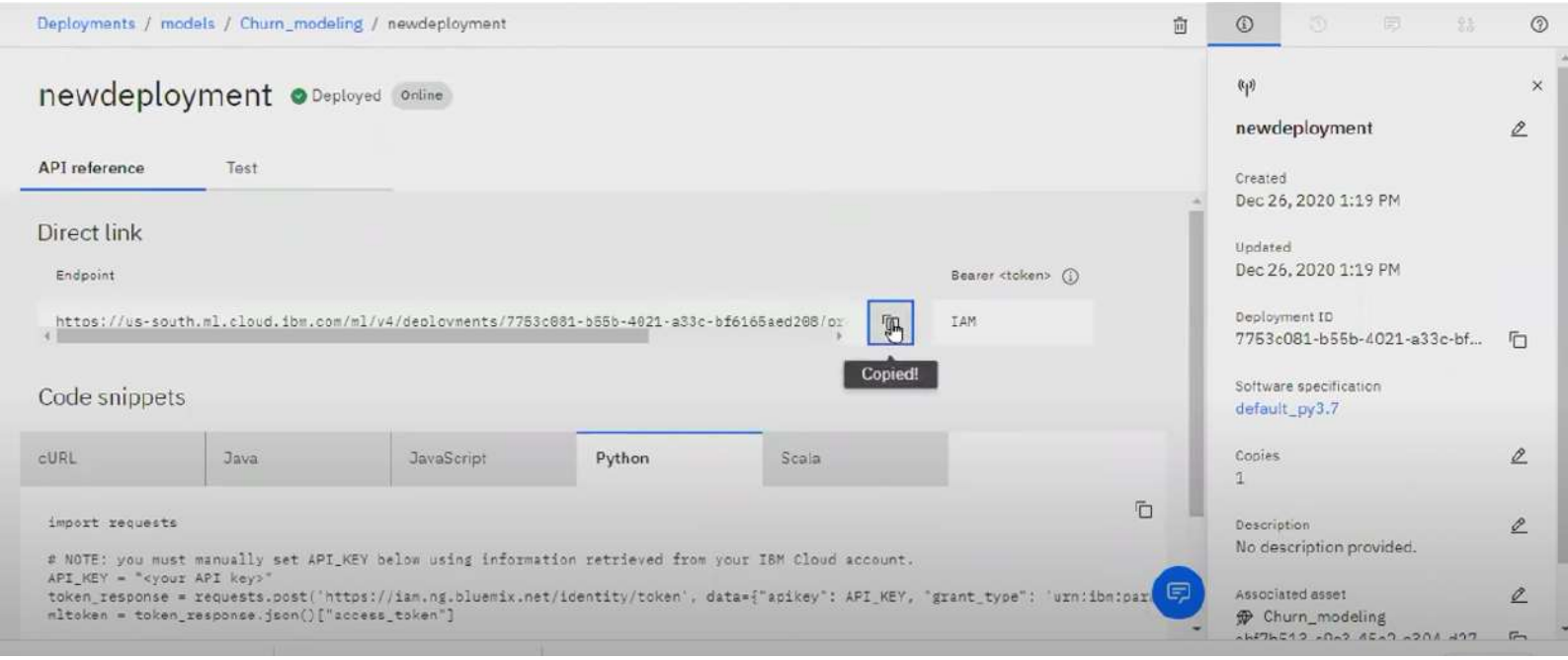

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Code
[9, 4, 7, 2, 5, 3, 8, 6] without random state
[7, 4, 8, 1, 5, 10, 2, 9] without random state
[8, 1, 10, 3, 7, 5, 4, 2] without random state
[10, 7, 4, 6, 1, 8, 3, 5] without random state
[1, 7, 2, 4, 8, 9, 3, 5] without random state
In [27]:
from sklearn.ensemble import RandomForestClassifier
forest_reg = RandomForestClassifier(n_estimators=10, criterion='entropy',random_state=42)
forest_reg.fit(x_train, y_train)
Out[27]: RandomForestClassifier(criterion='entropy', n_estimators=10, random_state=42)
In [*]: x_train[0]
In [36]:
from ibm_watson_machine_learning import APIClient
wml_credentials = {
"url": "https://us-south.ml.cloud.ibm.com",
"apikey":"zd8zC6MNUD17UV5o0Ej9JZsgt5cMMq14E-23FQKjOoO5"
}
client = APIClient(wml_credentials)
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all

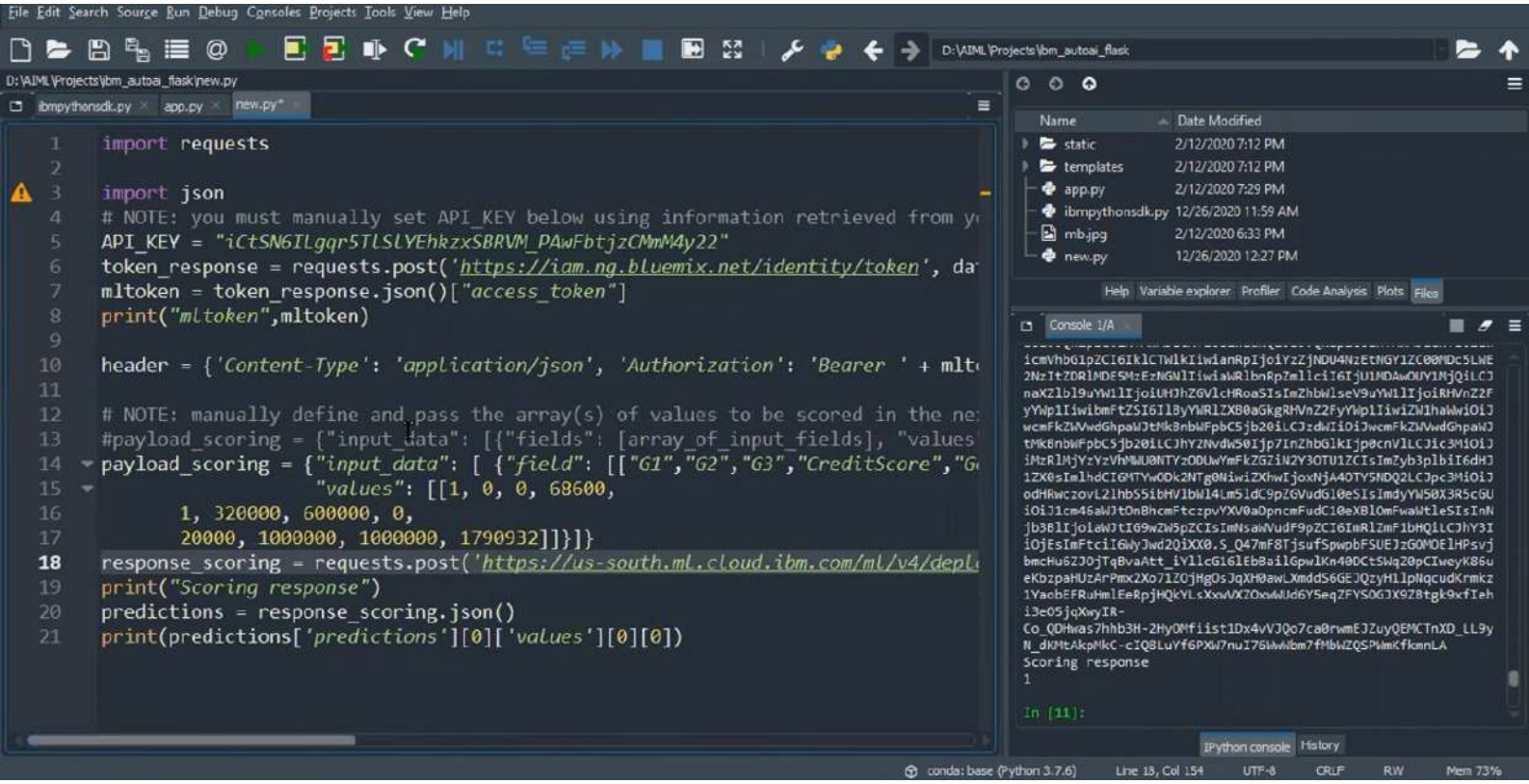

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Code
[9, 4, 7, 2, 5, 3, 8, 6] without random state
[7, 4, 8, 1, 5, 10, 2, 9] without random state
[8, 1, 10, 3, 7, 5, 4, 2] without random state
[10, 7, 4, 6, 1, 8, 3, 5] without random state
[1, 7, 2, 4, 8, 9, 3, 5] without random state
In [27]:
from sklearn.ensemble import RandomForestClassifier
forest_reg = RandomForestClassifier(n_estimators=10, criterion='entropy',random_state=42)
forest_reg.fit(x_train, y_train)
Out[27]: RandomForestClassifier(criterion='entropy', n_estimators=10, random_state=42)
In [29]:
x_train[0]
Out[29]: array([1.0000000e+00, 0.0000000e+00, 0.0000000e+00, 6.8600000e+02,
1.0000000e+00, 3.2000000e+01, 6.0000000e+00, 0.0000000e+00,
2.0000000e+00, 1.0000000e+00, 1.0000000e+00, 1.7909326e+05])
In [36]:
from ibm_watson_machine_learning import APIClient
wml_credentials = {
"url": "https://us-south.ml.cloud.ibm.com",
"apikey":"zd8zC6MNUD17UV5o0Ej9JZsgt5cMMq14E-23FQKjOoO5"
}
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all

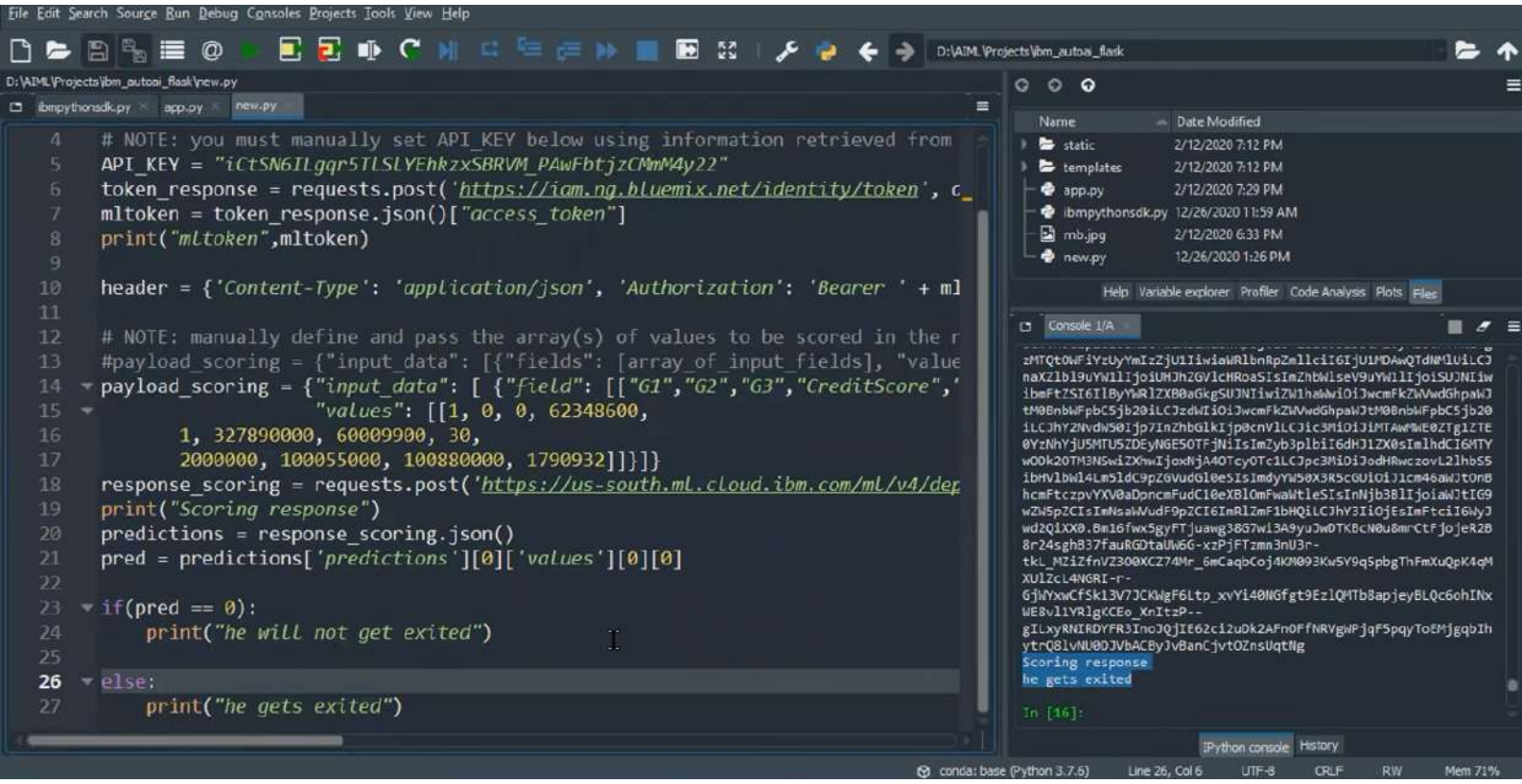

Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
Not Trusted | Python 3.7
Format
Run
Code
packages (from ibm-cos-sdk==2.7.*->ibm_watson_machine_learning) (2.7.0)
Requirement already satisfied: ibm-cos-sdk-s3transfer==2.7.0 in /opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages (from ibm-cos-sdk==2.7.*->ibm_watson_machine_learning) (2.7.0)
Requirement already satisfied: idna<3,>=2.5 in /opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages (from requests->ibm_watson_machine_learning) (2.9)
Requirement already satisfied: chardet<4,>=3.0.2 in /opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages (from requests->ibm_watson_machine_learning) (3.0.4)
Requirement already satisfied: docutils<0.16,>=0.10 in /opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages (from ibm-cos-sdk-core==2.7.0->ibm-cos-sdk==2.7.*->ibm_watson_machine_learning) (0.15.2)
In [31]:
from ibm_watson_machine_learning import APIClient
wml_credentials = {
"url": "https://us-south.ml.cloud.ibm.com",
"apikey":"zd8zC6MNUD17UV5o0EjOJZsgt5cMMq14E-23FQKjOoO5"
}
client = APIClient(wml_credentials)
In [37]:
def guid_from_space_name(client, space_name):
space = client.spaces.get_details()
#print(space)
return(next(item for item in space['resources'] if item['entity']["name"] == space_name)['metadata']['id'])
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all




Projects / Custommodeldeployment / Churn Modelingdeployment
File Edit View Insert Cell Kernel Help
error Not Trusted | Python 3.7
Format
Run
Code
wml_credentials = {
"url": "https://us-south.ml.cloud.ibm.com",
"apikey":"iCtSN6ILgqrSTlSlYEhkzxS8RVM_PAWFbtjzCMmM4y22"
}
client = APIClient(wml_credentials)
In [33]:
def guid_from_space_name(client, space_name):
space = client.spaces.get_details()
#print(space)
return(next(item for item in space['resources'] if item['entity']["name"] == space_name)['metadata']['id'])
In [35]:
space_uid = guid_from_space_name(client, 'models')
print("Space UID = " + space_uid)
Space UID = f91b25a0-f9ac-41c2-a368-60002dcf5598
In [29]:
client.set.default_space(space_uid)
Out[29]:
'SUCCESS'
In [30]:
client.software_specifications.list()
Data
Files
Connections
Upload one file at a time. All file types accepted. 5 GB max file size.
Drag and drop files here or upload.
Churn_Modelling.csv
Insert to code
Churn Modeling....ipynb
IBM custom mo....ipynb
Show all


Deployments / models / Churn_modeling / newdeployment
newdeployment
Deployed
Online
API reference
Test
Direct link
Endpoint
Bearer <token>
https://us-south.ml.cloud.ibm.com/ml/v4/deployments/7753c081-b55b-4021-a33c-bf6165aed208/ov
IAM
Copied!
Code snippets
cURL
Java
JavaScript
Python
Scala
import requests
# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
API_KEY = "<your API key>"
token_response = requests.post('https://iam.ng.bluemix.net/identity/token', data={"apikey": API_KEY, "grant_type": 'urn:ibm:par
mltoken = token_response.json()["access_token"]
newdeployment
Created
Dec 26, 2020 1:19 PM
Updated
Dec 26, 2020 1:19 PM
Deployment ID
7753c081-b55b-4021-a33c-bf...
Software specification
default_py3.7
Copies
1
Description
No description provided.
Associated asset
Churn_modeling


File Edit Search Source Run Debug Consoles Projects Tools View Help
D:\AIML\Projects\ibm_autoai_flask
D:\AIML\Projects\ibm_autoai_flask\new.py
ibmpythonsdk.py
app.py
new.py*
import requests
import json
# NOTE: you must manually set API_KEY below using information retrieved from y
API_KEY = "iCtSN6ILgqr5TlSlYEhkzxSBRVM_PAwFbtjzCMmM4y22"
token_response = requests.post('https://iam.ng.bluemix.net/identity/token', da
mltoken = token_response.json()["access_token"]
print("mltoken",mltoken)
header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mlt
# NOTE: manually define and pass the array(s) of values to be scored in the ne
#payload_scoring = {"input_data": [{"fields": [array_of_input_fields], "values
payload_scoring = {"input_data": [{"field": [["G1","G2","G3","CreditScore","G
"values": [[1, 0, 0, 68600,
1, 320000, 600000, 0,
20000, 1000000, 1000000, 1790932]]}]}
response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/depl
print("Scoring response")
predictions = response_scoring.json()
print(predictions['predictions'][0]['values'][0][0])
Name
Date Modified
static
2/12/2020 7:12 PM
templates
2/12/2020 7:12 PM
app.py
2/12/2020 7:29 PM
ibmpythonsdk.py
12/26/2020 11:59 AM
mb.jpg
2/12/2020 6:33 PM
new.py
12/26/2020 12:27 PM
Help
Variable explorer
Profiler
Code Analysis
Plots
Files
Console 1/A
Scoring response
1
In [11]:
IPython console
History
conda: base (Python 3.7.6)
Line 18, Col 154
UTF-8
CRLF
RW
Mem 73%


File Edit Search Source Run Debug Consoles Projects Tools View Help
D:\AIML\Projects\ibm_autoai_flask
D:\AIML\Projects\ibm_autoai_flask\new.py
ibmpythonsdk.py
app.py
new.py
# NOTE: you must manually set API_KEY below using information retrieved from
API_KEY = "iCtSN6ILgqr5TlSlYEhkzxSBRVM_PAwFbtjzCMmM4y22"
token_response = requests.post('https://iam.ng.bluemix.net/identity/token', c
mltoken = token_response.json()["access_token"]
print("mltoken",mltoken)
header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + ml
# NOTE: manually define and pass the array(s) of values to be scored in the r
#payload_scoring = {"input_data": [{"fields": [array_of_input_fields], "value
payload_scoring = {"input_data": [{"field": [["G1","G2","G3","CreditScore",'
"values": [[1, 0, 0, 62348600,
1, 327890000, 60009900, 30,
2000000, 100055000, 100880000, 1790932]]}]}
response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/dep
print("Scoring response")
predictions = response_scoring.json()
pred = predictions['predictions'][0]['values'][0][0]
if(pred == 0):
print("he will not get exited")
else:
print("he gets exited")
Name
Date Modified
static
2/12/2020 7:12 PM
templates
2/12/2020 7:12 PM
app.py
2/12/2020 7:29 PM
ibmpythonsdk.py
12/26/2020 11:59 AM
mb.jpg
2/12/2020 6:33 PM
new.py
12/26/2020 1:26 PM
Help
Variable explorer
Profiler
Code Analysis
Plots
Files
Console 1/A
Scoring response
he gets exited
In [16]:
IPython console
History
conda: base (Python 3.7.6)
Line 26, Col 6
UTF-8
CRLF
RW
Mem 71%