

Github Link:

<https://github.com/SmartPracticeschool/SPS-5927-Breast-Cancer-Risk-Prediction-System/tree/main>

Project Link:

<https://github.com/SmartPracticeschool/SPS-5927-Breast-Cancer-Risk-Prediction-System/blob/main/PredictionNewExport.zip>

Project Report:

[https://github.com/SmartPracticeschool/SPS-5927-Breast-Cancer-Risk-Prediction-System/blob/main/projectReport\(BreastCancerPrediction\).docx](https://github.com/SmartPracticeschool/SPS-5927-Breast-Cancer-Risk-Prediction-System/blob/main/projectReport(BreastCancerPrediction).docx)

```
1 var rm = global.get("rm")
2 var pm = global.get("pm")
3 var am = global.get("am")
4 var cm = global.get("cm")
5 var cnm = global.get("cnm")
6 var cpm = global.get("cpm")
7 var token=msg.payload.access_token
8 msg.headers={"Content-Type": 'application/json',"Authorization":"Bearer
  "+token,"Accept":"application/json"}
9 msg.payload={"input_data":[{"fields":["radius_mean","perimeter_mean","area_mean",
  ","compactness_mean","concavity_mean","concave
  points_mean"],"values":[[rm,pm,am,cm,cnm,cpm]]}]}
1 return msg;
2
```

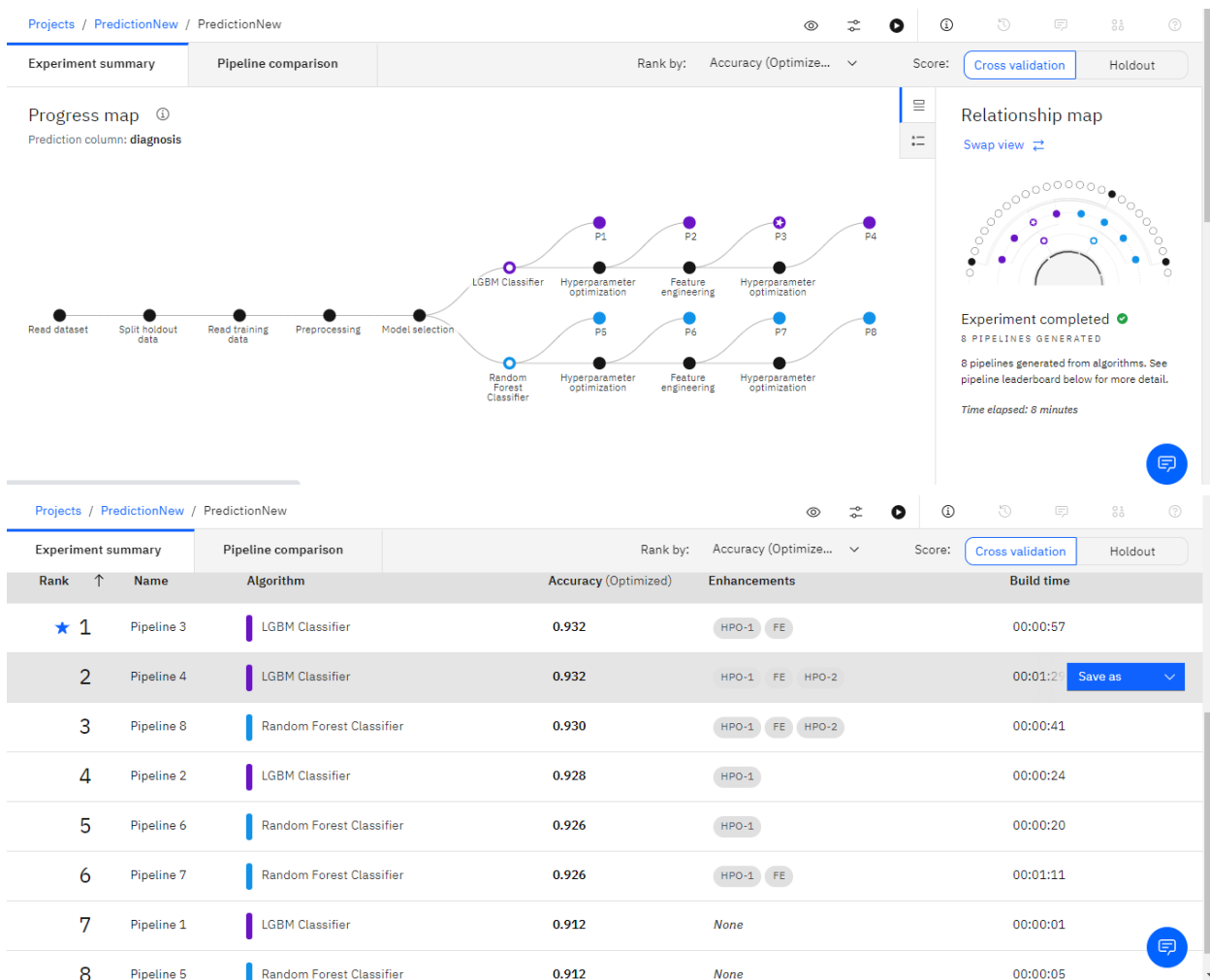
```
1 global.set("rm",msg.payload.rm)
2 global.set("pm",msg.payload.pm)
3 global.set("am",msg.payload.am)
4 global.set("cm",msg.payload.cm)
5 global.set("cnm",msg.payload.cnm)
6 global.set("cpm",msg.payload.cpm)
7 var apikey="gLimCx8lIZ3DlqYy5XbTTV5XIP3xKjmGQvO8cYJd2AQG";
8 msg.headers={"content-type":"application/x-www-form-urlencoded"}
9 msg.payload={"grant_type":"urn:ibm:params:oauth:grant-type:apikey","apikey":apik
```

```
ey}  
10 return msg;
```

Github Link:

<https://github.com/SmartPracticeschool/SPS-5927-Breast-Cancer-Risk-Prediction-System/new/main?readme=1>

ScreenShots:



dataplatform.cloud.ibm.com/ml-runtime/deployments/a1cd2fbe-c7b0-4c53-a5ba-4e3cc9b41de2/test?space_id=b639c348-dd12-4f73-8c96-f79cc43934f0&c...

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Deployments / PRedictionNewBreastCancer / PredictionNew - P3 LGBMClassifi... / PredictionAmita

PredictionAmita Deployed Online

API reference **Test**

Enter input data

Body

```
{  
  "input_data": {  
    "fields":  
    ["radius_mean", "perimeter_mean", "area_mean", "compactness_mean", "concavity_mean", "concave points_mean"],  
    "values":  
    [[17.99, 122.88, 1001, 0.2776, 0.3001, 0.1471]]  
  }  
}
```

Result

```
{  
  "predictions": [  
    {  
      "fields": [  
        "prediction",  
        "probability"  
      ],  
      "values": [  
        [  
          "M",  
          [  
            0.86934414469156758,  
            0.939655653984324  
          ]  
        ]  
      ]  
    }  
  ]  
}
```

Show more

PredictionAmita

Created
Oct 18, 2020 2:10 PM

Updated
Oct 18, 2020 2:10 PM

Deployment ID
a1cd2fbe-c7b0-4c53-a5ba-4e3...

Software specification
hybrid_0.1

Hybrid pipeline software specifications
autoai-kb_3.1-py3.7

Copies
1

Description
No description provided.

11

dataplatform.cloud.ibm.com/ml-runtime/deployments/a1cd2fbe-c7b0-4c53-a5ba-4e3cc9b41de2/implementation?space_id=b639c348-dd12-4f73-8c96-f79c...

IBM Cloud Pak for Data Upgrade amita Jain's Account

Deployments / PRedictionNewBreastCancer / PredictionNew - P3 LGBMClassifi... / PredictionAmita

PredictionAmita Deployed Online

API reference **Test**

Direct link

Endpoint

Bearer <token>

https://us-south.ml.cloud.ibm.com/ml/v4/deployments/a1cd2fbe-c7b0-4c53-a5ba-4e3cc9b41de2/ox IAM

Code snippets

cURL	Java	JavaScript	Python	Scala
<pre># NOTE: you must set \$API_KEY below using information retrieved from your IBM Cloud account. curl --insecure -X POST --header "Content-Type: application/x-www-form-urlencoded" --header "Accept: application/json" --data-urlencode " # the above CURL request will return an auth token that you will use as \$IAM_TOKEN in the scoring request below # TODO: manually define and pass values to be scored below curl -X POST --header "Content-Type: application/json" --header "Accept: application/json" --header "Authorization: Bearer \$IAM_TOKEN"</pre>				

PredictionAmita

Created
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a1cd2fbe-c7b0-4c53-a5ba-4e3...

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hybrid_0.1

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← → ↻ dataplatform.cloud.ibm.com/projects/a0f0e478-9e5b-4aec-a06a-130a30e6edf2/assets?context=cpdaas ☆

IBM Cloud Pak for Data Upgrade amita Jain's Account A3

Projects / PredictionNew Launch IDE Add to project +

Overview Assets Environments Jobs Access Control Settings

What assets are you looking for?

▼ Data assets

0 assets selected.

<input type="checkbox"/>	Name	Type	Created by	Last modified	↓
<input type="checkbox"/>	CSV cancer.csv	Data Asset	amita Jain	Oct 18, 2020, 01:55 PM	

▼ AutoAI experiments New AutoAI experiment +

Name	Status	Model type	Last modified
PredictionNew	✓ Completed	Binary Classification	Oct 18, 2020, 02:04 PM

Data

Load Files Catalog

Drop files here or browse for files to upload.

← → ↻ dataplatform.cloud.ibm.com/projects/a0f0e478-9e5b-4aec-a06a-130a30e6edf2/overview?context=cpdaas ☆

IBM Cloud Pak for Data Upgrade amita Jain's Account A3

Projects / PredictionNew Launch IDE Add to project +

Overview Assets Environments Jobs Access Control Settings

PredictionNew

Last Updated: Oct 18, 2020

Readme

3 Assets 1 Collaborators

Overview

Date created
Oct 18, 2020

Description
No description available

Storage
6.57 MB used
Cloud Object Storage

Collaborators
A3 amita Jain
Admin

Recent activity

Search activities

Today

- ✓ Project export complete. PredictionNew was exported successfully. 12:50 PM
- ✓ Project export complete. PredictionNew was exported successfully. 12:46 PM
- ✓ Project export complete. PredictionNew was exported successfully. 12:43 PM

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

Node-RED

Flow 7

common

function

- function
- switch
- change
- range
- template
- delay
- trigger
- OpenWhisk
- rbe

network

output

timestamp

pre-token

form

http request

Parsing

Pre Prediction

msg payload

http request

Prediction

debug

all nodes

```
refresh_token:
"OKCQ3Bm6E2F4234UNHLuE130aM5jIg.-",
token_type: "Bearer", expires_in:
3600, expiration: 1603015877 ... }
10/18/2020, 2:37:43 PM node: c8a2dcd8d583
msg.payload: Object
{ predictions: array[1] }
10/18/2020, 2:37:44 PM node: 327e8f14d3c91
msg.payload: string[1]
"B"
10/18/2020, 2:37:47 PM node: f6631935e91168
msg.payload: Object
{ access_token:
"eyJraWQ1OjIyMDIwMDkyMjE4MzhlLC.-",
refresh_token:
"OKBpr9fnM2gZZwixuToVajjS2TmAHT.-",
token_type: "Bearer", expires_in:
3600, expiration: 1603015881 ... }
10/18/2020, 2:37:48 PM node: c8a2dcd8d583
msg.payload: Object
{ predictions: array[1] }
10/18/2020, 2:37:48 PM node: 327e8f14d3c91
msg.payload: string[1]
"B"
```

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

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msg.payload: string[1]
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refresh_token:
"OKBpr9fnM2gZZwixuToVajjS2TmAHT.-",
token_type: "Bearer", expires_in:
3600, expiration: 1603015881 ... }
10/18/2020, 2:37:48 PM node: c8a2dcd8d583
msg.payload: Object
{ predictions: array[1] }
10/18/2020, 2:37:48 PM node: 327e8f14d3c91
msg.payload: string[1]
"B"
```

Edit function node

Delete Cancel Done

Properties

Name pre-token

Setup Function Close

```
1 global.set("rm",msg.payload.rm)
2 global.set("pm",msg.payload.pm)
3 global.set("am",msg.payload.am)
4 global.set("cm",msg.payload.cm)
5 global.set("cnm",msg.payload.cnm)
6 global.set("cpm",msg.payload.cpm)
7 var apikey="gLIwCx8lIz3DiqY5XbTTV5XIP3xKjmgQv08cY3d2AQG";
8 msg.headers={"content-type":"application/x-www-form-urlencoded"}
9 msg.payload={"grant_type":"urn:ibm:params:oauth:grant-type:apikey","api
10 return msg;
11
```

Outputs 1

Enabled

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

Node-RED

filter nodes

common

function

function

switch

change

range

template

delay

trigger

OpenWhisk

rbe

network

output

Edit form node

Delete

Cancel

Done

Properties

Group: [Home] Breast Cancer Prediction

Size: auto

Label: optional label

Label	Name	Type	Required	Rows	Remove
radius_mean	rm	Number	<input checked="" type="checkbox"/>		
perimeter_mean	pm	Number	<input checked="" type="checkbox"/>		
area_mean	am	Number	<input checked="" type="checkbox"/>		
compactness_mea	cm	Number	<input checked="" type="checkbox"/>		
concavity_mean	com	Number	<input checked="" type="checkbox"/>		

debug

```
refresh_token:
"OKCQ3Bm6E2F4234UNHLuE130aH5jIg-",
token_type: "Bearer", expires_in:
3600, expiration: 1603015877 ... }
10/18/2020, 2:37:43 PM node: c8a2dcd0.d8583
msg.payload: Object
{ predictions: array[1] }
10/18/2020, 2:37:44 PM node: 327e8f14.d3c91
msg.payload: string[1]
"B"
10/18/2020, 2:37:47 PM node: f6631935.e91168
msg.payload: Object
{ access_token:
"eyJraWQ1O1IyMDIwMDkyMjE4MzMiLC-",
refresh_token:
"OKBpr9fnH2gZ2w1xuToVajjS2TmAHT-",
token_type: "Bearer", expires_in:
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msg.payload: string[1]
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```

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

Node-RED

filter nodes

common

function

function

switch

change

range

template

delay

trigger

OpenWhisk

rbe

network

output

Flow 7

timestamp

pre-token

form

msg payload

Edit http request node

Delete

Cancel

Done

Properties

Method: POST

URL: https://us-south.ml.cloud.ibm.com/ml/v4/deployme

☐ Enable secure (SSL/TLS) connection

☐ Use authentication

☐ Enable connection keep-alive

☐ Use proxy

Return: a parsed JSON object

Name: Name

Tip: If the JSON parse fails the fetched string is returned as-is.

☐ Enabled

debug

```
refresh_token:
"OKCQ3Bm6E2F4234UNHLuE130aH5jIg-",
token_type: "Bearer", expires_in:
3600, expiration: 1603015877 ... }
10/18/2020, 2:37:43 PM node: c8a2dcd0.d8583
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msg.payload: string[1]
"B"
```

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

Node-RED

Filter nodes

Flow 7

common

function

function

switch

change

range

template

delay

trigger

OpenWhisk

rbe

network

output

timestamp

form

msg.payload

Edit function node

Properties

Name: Pre Prediction

Setup Function Close

```
1 var rm = global.get("rm")
2 var pm = global.get("pm")
3 var am = global.get("am")
4 var cm = global.get("cm")
5 var cnm = global.get("cnm")
6 var cpm = global.get("cpm")
7 var token=msg.payload.access_token
8 msg.headers={'Content-Type': 'application/json','Authorization':'Bearer '
9 msg.payload=({"input_data":[{"fields":["radius_mean","perimeter_mean","a
10 return msg;
11
```

Outputs: 1

Enabled

debug

all nodes

refresh_token: "OKCQ3Bm6E2F4234UNHLEI30aH5jIg-", token_type: "Bearer", expires_in: 3600, expiration: 1603015877 ... }

10/18/2020, 2:37:43 PM node: c8a2dccc-d8583 msg.payload: Object

{ predictions: array[1] }

10/18/2020, 2:37:44 PM node: 327e8f14-d3c91 msg.payload: string[1]

"B"

10/18/2020, 2:37:47 PM node: f6631935-e91168 msg.payload: Object

{ access_token: "eyJraWQ1O1IyID1wMDkyMjE4MzhlLC-", refresh_token: "OKBpr9FmVzGZ2wixuToVajjS2TmAHT-", token_type: "Bearer", expires_in: 3600, expiration: 1603015881 ... }

10/18/2020, 2:37:48 PM node: c8a2dccc-d8583 msg.payload: Object

{ predictions: array[1] }

10/18/2020, 2:37:48 PM node: 327e8f14-d3c91 msg.payload: string[1]

"B"

node-red-brhtz-2020-10-17.eu-gb.mybluemix.net/red/#flow/ba023ede.5287e

Node-RED

Filter nodes

Flow 7

common

function

function

switch

change

range

template

delay

trigger

OpenWhisk

rbe

network

output

timestamp

form

pre-token

msg.payload

Edit text node

Properties

Group: [Home] Breast Cancer Prediction

Size: auto

Label: Prediction

Value format: {{msg.payload}}

Layout

label value label value label value

label value label value

Name

Enabled

debug

all nodes

refresh_token: "OKCQ3Bm6E2F4234UNHLEI30aH5jIg-", token_type: "Bearer", expires_in: 3600, expiration: 1603015877 ... }

10/18/2020, 2:37:43 PM node: c8a2dccc-d8583 msg.payload: Object

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10/18/2020, 2:37:48 PM node: c8a2dccc-d8583 msg.payload: Object

{ predictions: array[1] }

10/18/2020, 2:37:48 PM node: 327e8f14-d3c91 msg.payload: string[1]

"B"

Breast Cancer Prediction

radius_mean *

13.54

perimeter_mean *

87.46

area_mean *

566.3

compactness_mean *

0.08129

concavity_mean *

0.06664

concave points_mean *

0.04781

SUBMIT CANCEL

Prediction **B**

Breast Cancer Prediction

radius_mean *

17.99

perimeter_mean *

122.8

area_mean *

1001

compactness_mean *

0.2776

concavity_mean *

0.3001

concave points_mean *

0.1471

SUBMIT CANCEL

Prediction **M**