

IBM Cloud - Machine Learning model deployment and user data integration

In this document, we deployed our created machine learning model of Parkinson's Disease into IBM Watson Machine Learning workspace of the cloud. And the user's data has been linked into IBM db2 database service from the reactpresentation of application

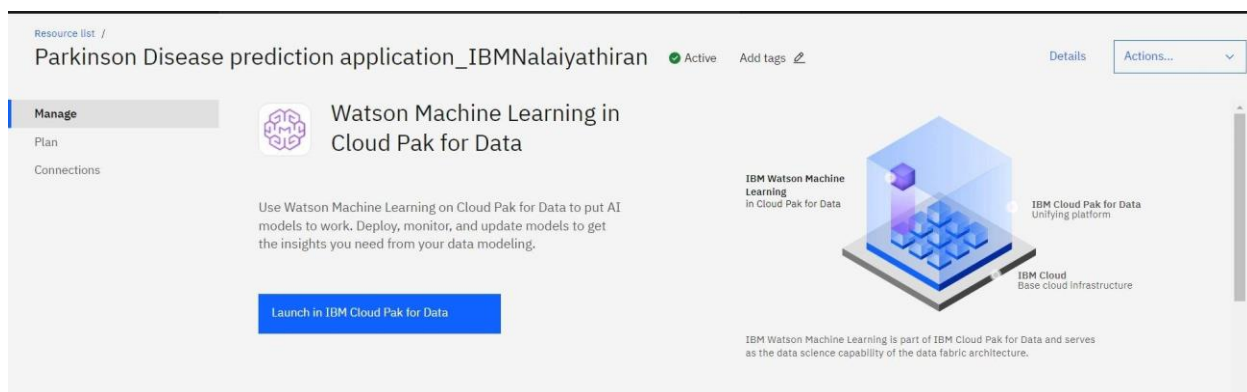
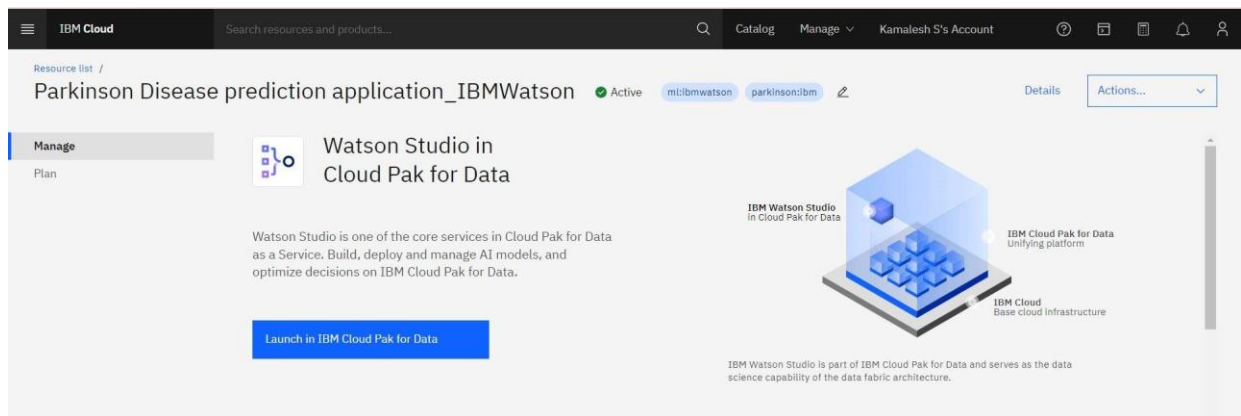
Project Name : Detecting Parkinson's Disease using Machine Learning

Cloud service used : IBM Cloud Console

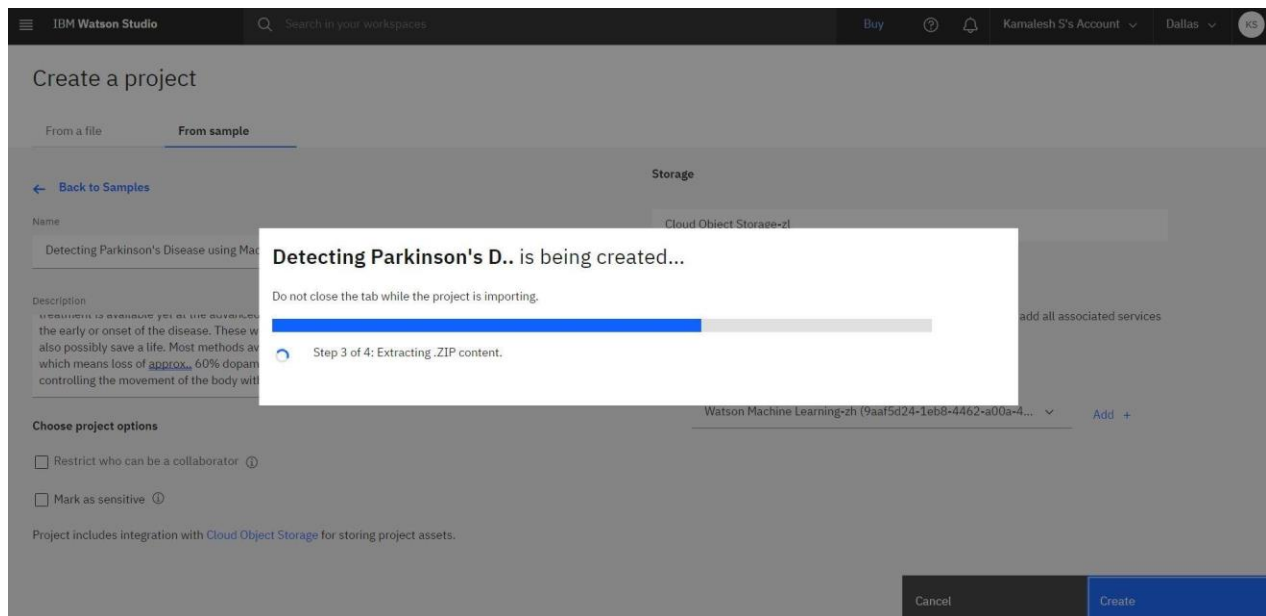
The cloud operations has been represented below:

Machine Learning model registration and deployment initiation process:

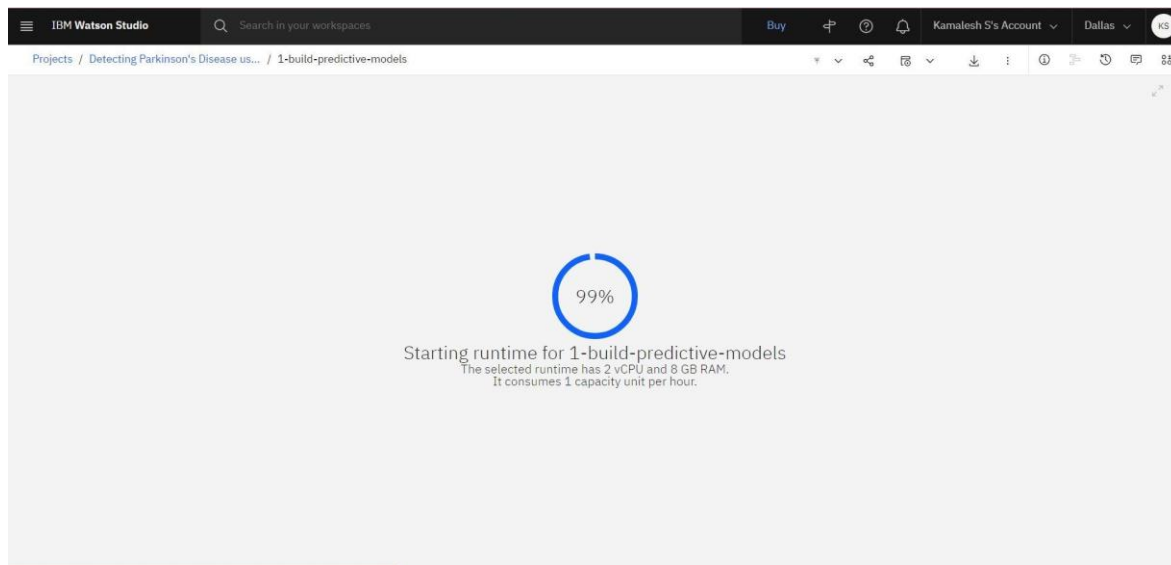
Operation 1)



Operation 2)



Operation 3)



Operation 4)

Create a deployment space

Use a space to collect assets in one place to create, run, and manage deployments.

Define space details

Name

PROD

Description (Optional)

Deployment space description

Deployment space tags (optional)

Start typing tag name, click + to create new tag

Select storage service

Define space assets (optional)

Populate your space with assets exported from a space to a .zip file. You can add more assets after the space is created.

Drop .zip file or browse your files to upload

The space is ready

Import is completed! Click **View new space** to view the space and associated assets.

Step 1 of 1. Creating deployment space.

Close

View new space

Operation 5)

IBM Cloud

Search resources and products...

Catalog Manage Kamallesh S's Account

IAM

Manage identities

Users

Trusted profiles

Service IDs

API keys

Identity providers

Manage access

Access groups

Authorizations

Roles

Gain insight

Inactive identities

Inactive policies

API keys

Create, view, and work with API keys that you have access to manage. IBM Cloud API keys are associated with a user's identity and can be used to access cloud platform and classic infrastructure APIs, depending on the access that is assigned to the user. The following table displays a list of API keys created in this account. [Learn more.](#)

Looking for more...

View: My IBM

API keys associated with...

Status
API key
.....
Copy
Download

Items per page

API key successfully created

Copy the API key or click download to save it. You won't be able to see this API key again, so you can't retrieve it later. The API key is no longer displayed after 115 seconds.

API key

.....

Copy

Download

Bring them securely in your own dedicated instance.

For an API key, assign or remove access for the user.

Create

Date Created
2022-11-16 14:11 GMT

Page 1

Operation 6)

```
# Set meta
deployment_props = {
    wml_client.deployments.ConfigurationMetaNames.NAME: DEPLOYMENT_NAME,
    wml_client.deployments.ConfigurationMetaNames.ONLINE: {}
}

# Deploy
deployment = wml_client.deployments.create(
    artifact_uid=model_uid,
    meta_props=deployment_props
)

# Output result
deployment
```

```
#####

Synchronous deployment creation for uid: '6717965d-bf1b-492f-9374-b9791915c168' started

#####

initializing
ready

-----
Successfully finished deployment creation, deployment_uid='01c279a5-21aa-41a2-92ae-5cfac2ad5d59'
-----
```

Operation 7)

Deployments / PROD

PROD

Assets

Deployments

Jobs

Access control

Settings

What deployments are you looking for?

Deployments (1)

Name	Type	Status	Asset
 Sklearn Deployment	Online	 Deployed	Sklearn Forecast

User data integration from react to the IBM DB2 service:

Operations:

Operation 1)

The screenshot shows the IBM Cloud console interface for creating a new Db2 service instance. The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user's account (Kamalesh S's Account). The main content area is titled "Configure your resource" and contains several input fields and a summary panel on the right.

Enterprise Dedicated instance with flexible scaling of compute and storage
Base instance starts at 4 vCPU x 16 GB RAM x 20 GB Storage
Uses dedicated virtual machines
HIPAA Enabled

USD/SERVICEENDPOINT_INSTANCE_HOURS

Summary

Db2 **Free**

Location: Dallas
Plan: Lite
Service name: Parkinson_Disease_user_Db2-59
Resource group: Default

Configure your resource

Service name
Parkinson_Disease_user_Db2-59

Select a resource group
Default

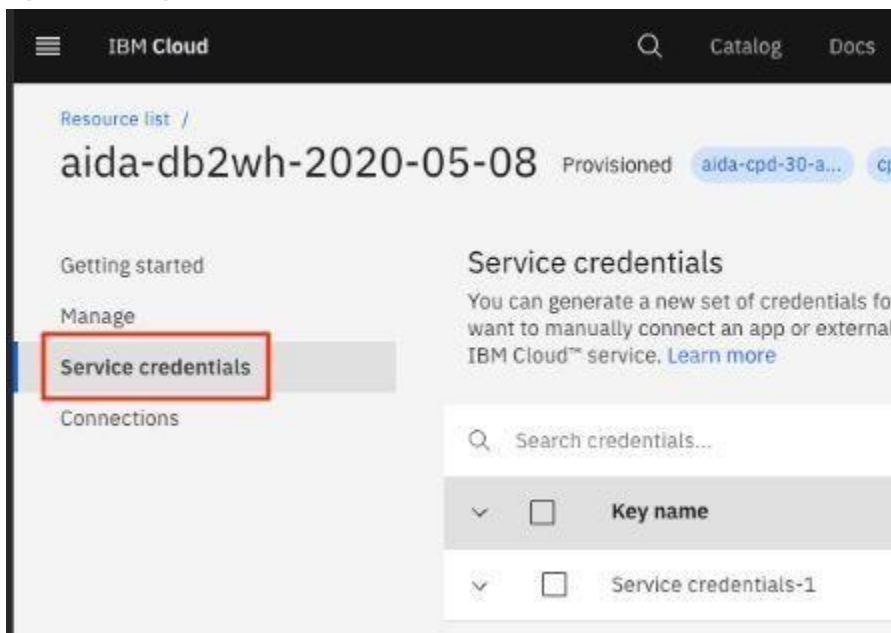
Tags
user:database X

Access management tags
Examples: access:dev, proj:version-1

Operation 2)

```
JS IBM db2_user'data-Node.js
C: > Users > Kamalesh S > OneDrive > Desktop 1 > IBM Nalaiyathiran > Project Development Phase > Sprint 4 > IBM Cloud deployment > JS IBM db2_user'data-Node.js > [options] > "headers"
1 var http = require("https");
2
3 var options = {
4   "method": "POST",
5   "hostname": "{REST_API_HOSTNAME}",
6   "port": null,
7   "path": "/dbapi/v4/auth/tokens",
8   "headers": {
9     "content-type": "application/Parkinson_MLmodel.sav",
10    "x-deployment-id": "D6717965d-bf1b-492f-9374-b9791915c168",
11    "api-key": "s3nNigNL1Ev3RNdHNux58n0UNRXQdCr4AZyDumYrPwTV"
12  };
13 };
14
15 var req = http.request(options, function (res) {
16   var chunks = [];
17
18   res.on("data", function (chunk) {
19     chunks.push(chunk);
20   });
21
22   res.on("end", function () {
23     var body = Buffer.concat(chunks);
24     console.log(body.toString());
25   });
26 });
```

Operation 3)



Operation 4)

