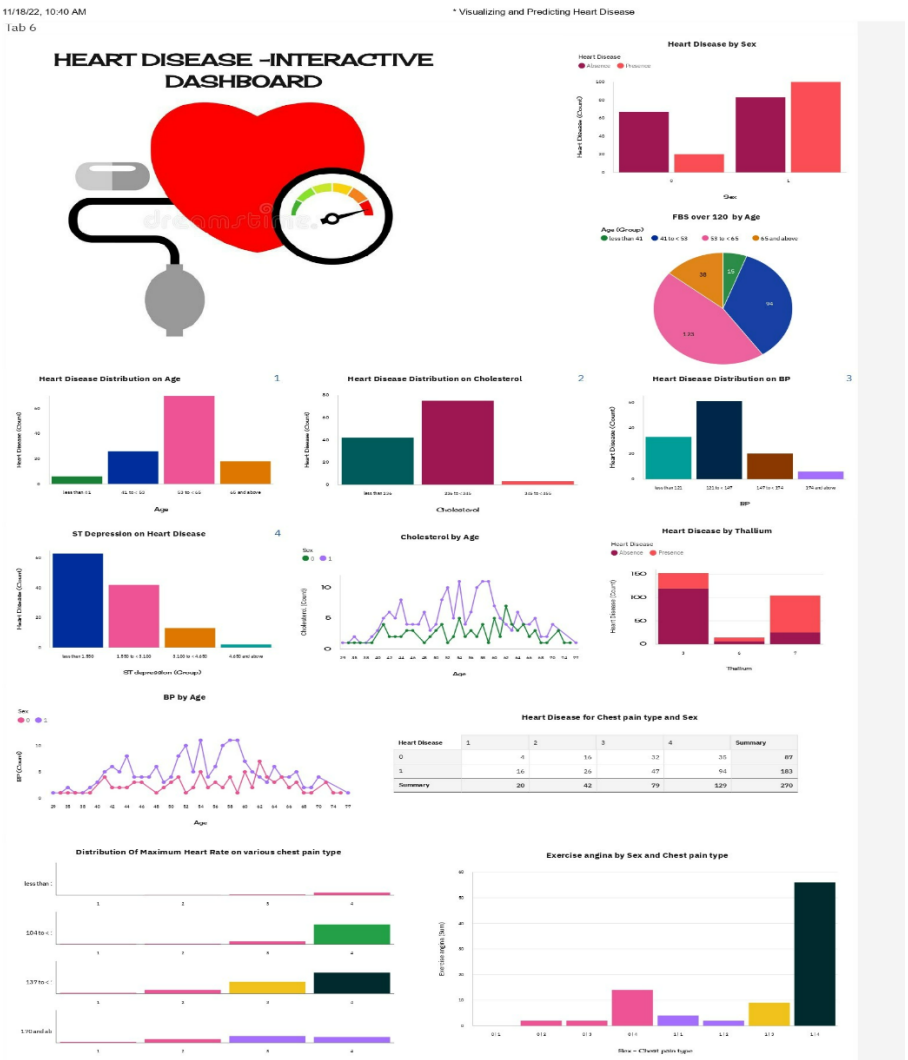
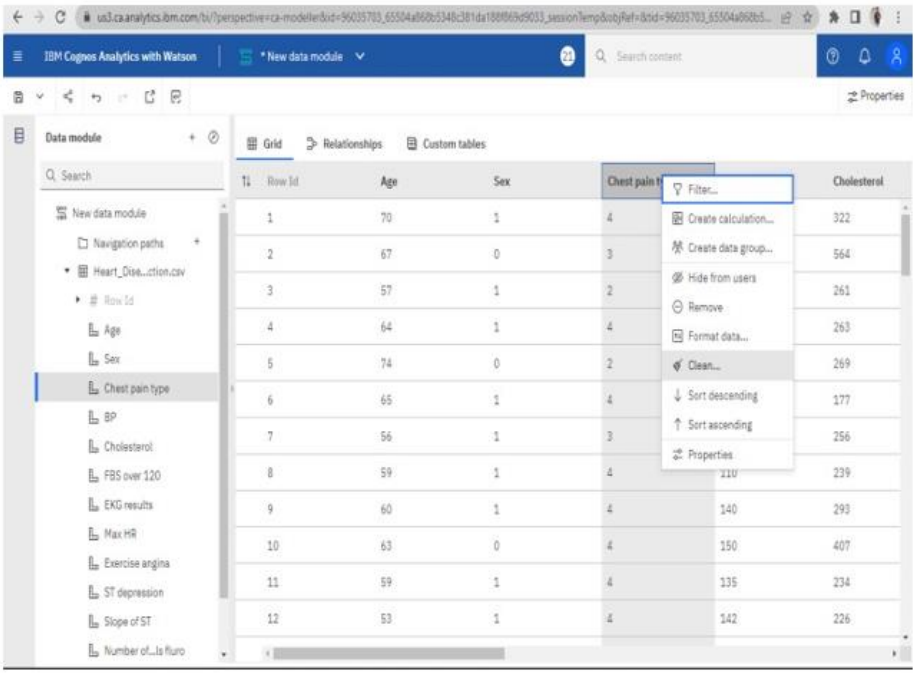
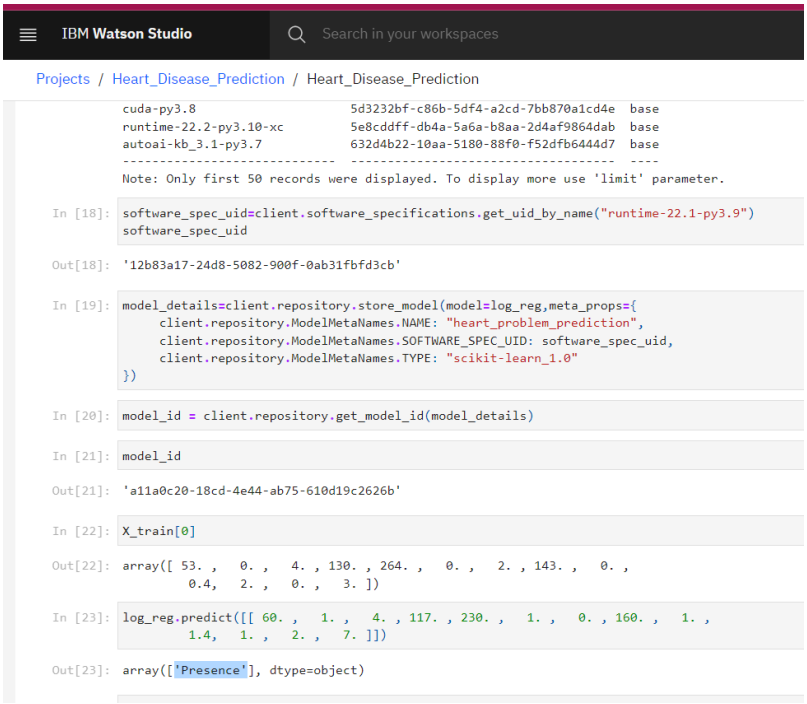
Project Development Phase
Model Performance Test

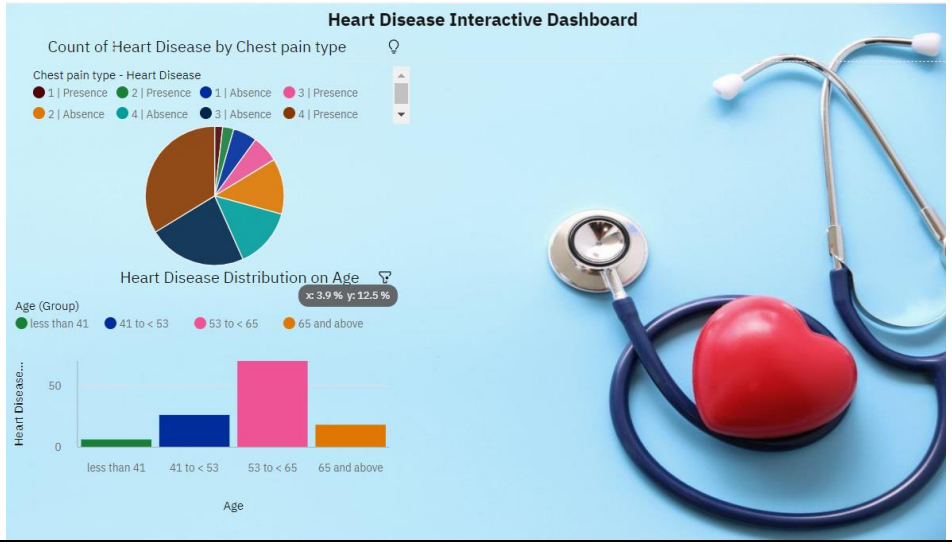
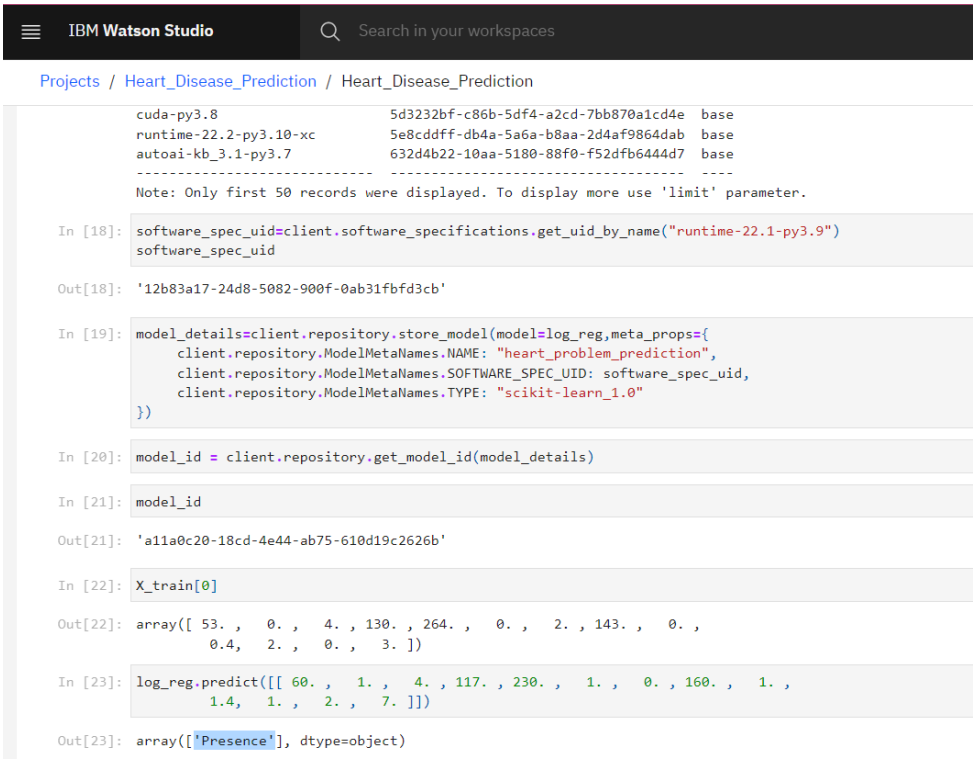
Date	18 November 2022
Team ID	PNT2022TMID52957
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dashboard
Maximum Marks	10 Marks

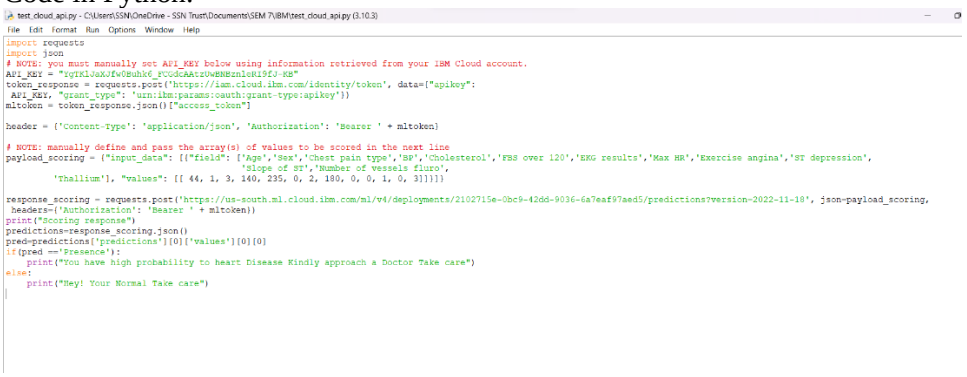
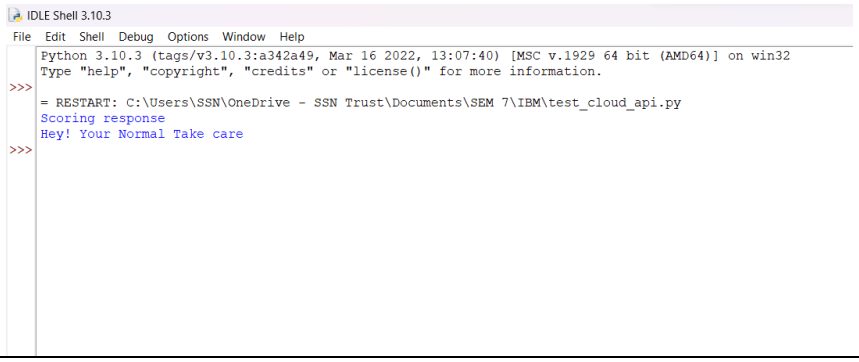
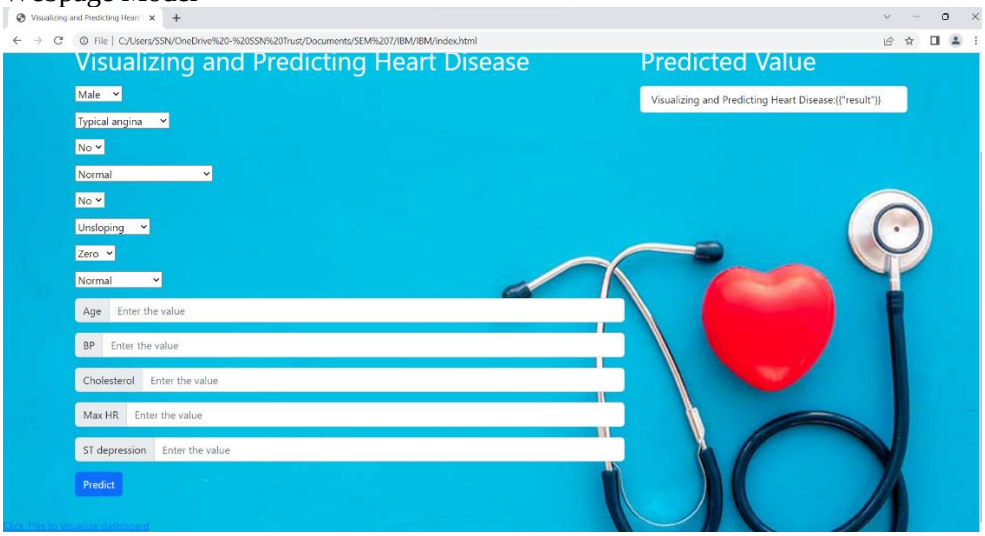
Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot / Values
1.	Dashboard designs	No of Visualizations / Graphs – 5 dashboard 25 visualization 
2.	Data Response	It hides certain aspects of the visualization if the sizeis limited, tomaximize the s pacethat is available to display data. • Its Create withrelationship with anotherexplorations

		• Therewas another data exploration withvarious continuousvalues ,those values was grouped as common.
3.	Dataset collectionand Modification	As per project ideation the dataset are collected from smartwatches by theandwork the dataset with cleaning process 
4.	Utilization of DataFilters	IN CognosDashboard utilization of the filtration to be filtered of allexplorations of the dashboard 
5.	Effective User Story	No of Scene Added– 15 stories with2-3 visualizations in each story

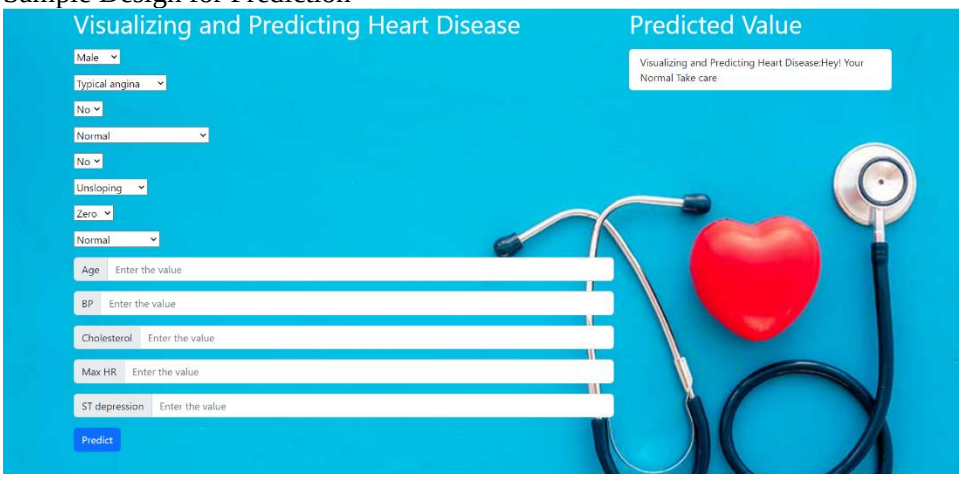
		
6.	Deployment of ML model for prediction in IBM Cloud	By user input their parametrs like age,sex,BP etc logistic regression is deployed in IBM cloud and it will display whether Heart disease is presence or absence 

7.	Heart Disease Prediction in python using deployed model in IBM Cloud.	Heart Disease is predicted by user giving their details in python itself which use the deployed model in IBM cloud as backend. Code in Python:  Output : 
8.	Webpage Design for Visualizing and prediction	Designed an webpage model for Visualizing and Pereddiction of Heart Disease Webpage Model 

```
import requests
import json
# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
API_KEY = "YgYKlJaXJfw0Buhk6_FCGdcAAtz0wBNBznleR19fJ-KB"
token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":
 API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})
mltoken = token_response.json()["access_token"]

header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}

# NOTE: manually define and pass the array(s) of values to be scored in the next line
payload_scoring = {"input_data": [{"field": ['Age','Sex','Chest pain type','BP','Cholesterol','FBS over 120','EKG results','Max HR','Exercise angina','ST depression',
                                             'Slope of ST','Number of vessels fluro',
        'Thallium'], "values": [[ 44, 1, 3, 140, 235, 0, 2, 180, 0, 0, 1, 0, 3]]}]}

response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/deployments/2102715e-0bc9-42dd-9036-6a7eaf97aed5/predictions?version=2022-11-10', json=payload_scoring,
 headers={'Authorization': 'Bearer ' + mltoken})
print("Scoring response")
predictions=response_scoring.json()
pred=predictions['predictions'][0]['values'][0][0]
if(pred =='Presence'):
    print("You have high probability to heart Disease Kindly approach a Doctor Take care")
else:
    print("Hey! Your Normal Take care")
```

```
IDLE Shell 3.10.3
File  Edit  Shell  Debug  Options  Window  Help
Python 3.10.3 (tags/v3.10.3:a342a49, Mar 16 2022, 13:07:40) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\SSN\OneDrive - SSN Trust\Documents\SEM 7\IBM\test_cloud_api.py
Scoring response
Hey! Your Normal Take care
>>>
```

Sample Design for Prediction



Sample Design for Visualization