

Project Title: **Diabetes Mellitus Prediction using ibm auto AI service**

Faculty Name: **Rekha Phadke, Nitte Meenakshi Institute of Technology,Bangalore**

Dataset: The project for diabetes prediction comprises of a dataset from kaggle.com for pima indian diabetes. The dataset comprises of nine variables -

1. Pregnancies
2. Glucose
3. Blood Pressure
4. Skin Thickness
5. Insulin
6. BMI
7. Diabetes Pedigree Function
8. Age
9. Outcome

Hence it comprises of 8 independent variable(1 to 8) and 1 dependent variable(9).

The machine learning algorithm has to build a model for the given dataset and predict the outcome under binary classification using different algorithms. The model with best accuracy will be deployed and used for new prediction.

Algorithms: Different Binary classification algorithms are implemented to predict the outcome for given set of independent variable values. Based on the accuracy , P4 gradient boosting classifier algorithm is chosen for deployment.

Model Deployment: The best model is deployed and connected to the cloud for webpage access using node red in ibm cloud providing UI. This allows users to enter data for independent variables and predict the outcome as 0 or 1 for diabetes prediction.

Enter input data

preg

4

plas

234

pres

123

Skin

24

Result

```
0 {  
1   "predictions": [  
2     {  
3       "fields": [  
4         "prediction",  
5         "probability"  
6       ],  
7       "values": [  
8         [  
9           1,  
10          [  
11            0.13459862344883988,  
12            0.8654013765511601  
13          ]  
14        ]  
15      }  
16    ]  
}
```

Show less ^



preg *

1

plas *

85

pres *

66

Skin *

29

test *

0

mass *

26.6

pedi *

0.351

age *

31

SUBMIT

CANCEL

Prediction

0