

Phase 4 Documentation

Date	28-10-2023
Team ID	4146
Project Name	Machine learning model deployment with IBM Watson studio

Table of Contents

1	Introduction
2	Model Deployment in IBM Cloud Watson Studio
3	Flask Application Integration
4	Usage Instructions
5	Conclusion

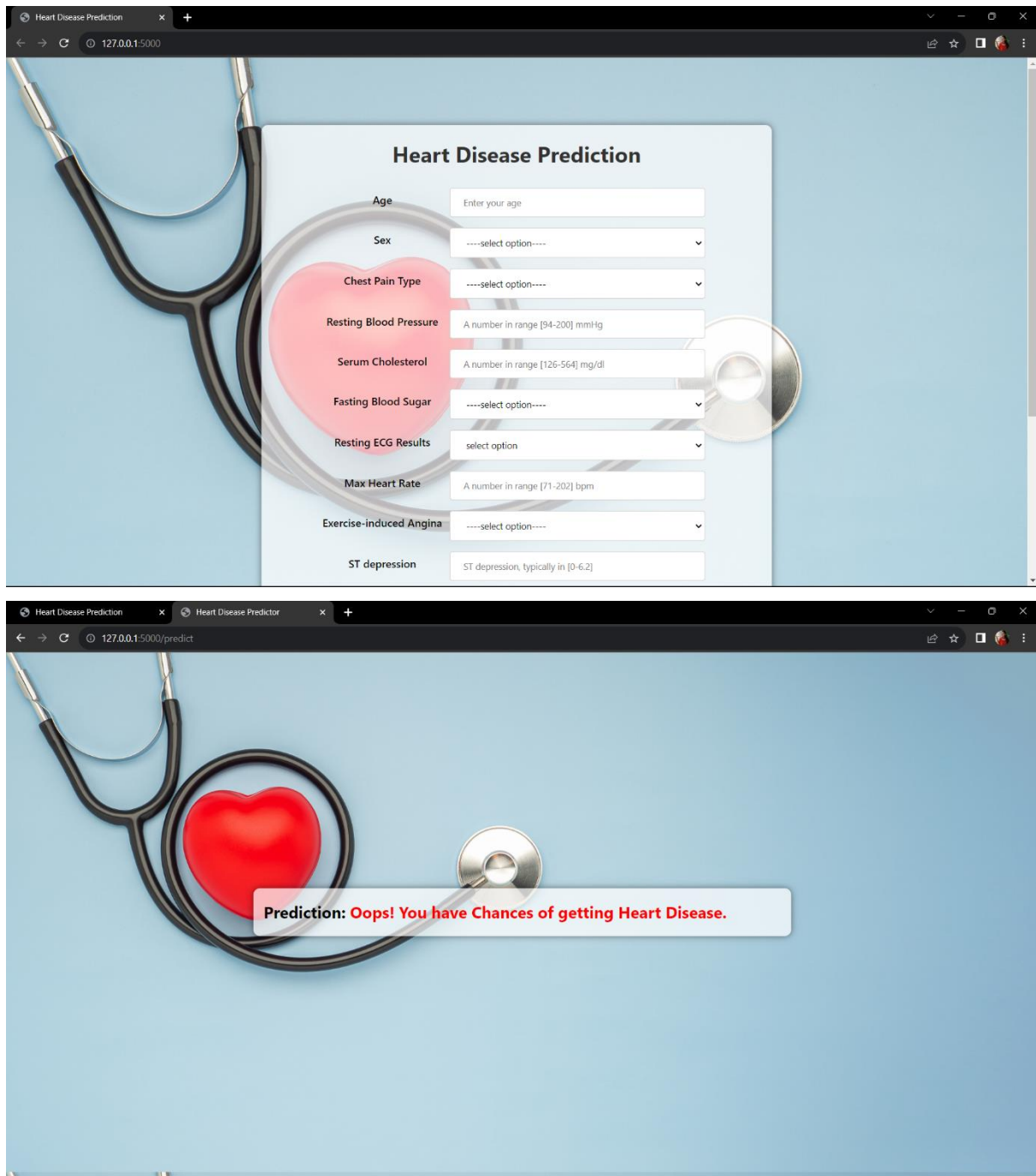
Deploying Heart Disease Prediction Model by Gradient Boosting in IBM Watson Studio and Integrating with Flask Application

1.Introduction

In this phase, we successfully deployed our heart disease prediction model, which was built using the Gradient Boosting algorithm, on the IBM Cloud Watson Studio platform. We also integrated the deployed model into a Flask application, allowing users to access it through provided API endpoints. This project marks a significant step towards making heart disease prediction accessible to a wider audience.

2.Model Deployment in IBM Cloud Watson Studio

- We exported the trained Gradient Boosting model from our development environment.
- Within IBM Cloud Watson Studio, we used the provided deployment tools to upload and manage our model.
- Configured the deployment settings, including scalability options, security, and resource allocation.
- Ensured the deployed model was accessible via a unique API endpoint URL.



4.Usage Instructions

To utilize the heart disease prediction model, users can interact with the Flask application through the provided API endpoints. Here are the steps for using the system:

Input Data: Users are presented with a user-friendly form where they can input their health-related data. This may include features like age, cholesterol levels, blood pressure, etc.

Submit the Form: After inputting the required data, users can submit the form to trigger the model's prediction process.

Model Prediction: The Flask application processes the user's input data and forwards it to the deployed model via the API endpoint.

Result Display: The prediction results, such as the likelihood of heart disease, are displayed to the user on the web interface.

5.Conclusion

By deploying our heart disease prediction model using Gradient Boosting in IBM Watson Studio and integrating it into a Flask web application, we have successfully provided a user-friendly interface for predicting heart disease risk. This project enables users to input their health data and receive predictions, contributing to informed healthcare decision-making.