MACHINE LEARNING MODEL DEPLOYMENT WITH IBM CLOUD WATSON STUDIO

❖ **DESCRIPTION OF THE PROBLEM:**

The objective of this project is to demonstrate the end-to-end process of deploying a machine learning model using IBM Cloud Watson Studio.

The primary goal of this project is to take a pre-existing machine learning model, which has been trained and evaluated on a specific dataset, and deploy it to a web service using IBM Cloud Watson Studio. The machine learning model should be capable of making predictions based on input data, providing valuable insights or solutions for a given problem.

❖ **Introduction to IBM Cloud Watson Studio:**

IBM Cloud Watson Studio is a collaborative platform that allows data scientists, developers, and domain experts to work together and leverage the power of AI. It offers tools for data preparation, training models, and deploying them. Watson Studio simplifies and accelerates the AI lifecycle.

❖ **Setting up an IBM Cloud Account:**

To get started with IBM Cloud Watson Studio, we'll need to create an IBM Cloud account. Visit the IBM Cloud website, sign up for an account, and follow the steps to access Watson Studio.

❖ **Preparing the Machine Learning Model:**

Define the machine learning problem to solve and choose an appropriate dataset for training and deployment. This could be a classification, regression, or any other machine learning task.

Since we are exploring about IBM Cloud Watson studio, we will choose a machine learning problem in future.

❖ **Uploading Data to Watson Studio:**

Upload the dataset that has been selected in the previous step to IBM Cloud Watson Studio, where we'll be able to access and use it for training the machine learning model.

❖ **Creating a Machine Learning Model:**

Using the dataset,we build and train a machine learning model within Watson Studio. We choose the appropriate algorithms, optimize hyperparameters, and evaluate the model's performance.

❖ **Saving the Model:**

Once the model has been trained and evaluated,we save it within Watson Studio to prepare for deployment.

❖ **Setting up Deployment:**

Configure the deployment settings, such as selecting the target environment (e.g., cloud-based deployment) and specifying any additional parameters required for deployment.

❖ **Deploying the Model:**

Deploy the machine learning model as a web service within Watson Studio. This will make the model accessible via an API, allowing for real-time predictions.

❖ **Testing the Deployed Model:**

Use sample input data to test the deployed model and ensure it provides accurate predictions.

❖ **Continuous Improvement:**

We can now be able to suggest possible improvements or extensions to enhance the deployed machine learning model. Additionally,we can do continuous improvements, such as refining the model, integrating it into applications, or exploring advanced features of Watson Studio.