Prediction of CO_2 Emissions by Country using IBM Watson Studio

Team Members

Prajwal S - 19BCE10240
Muskan Dharmani - 19BCE10227
Kashish Dharmani - 19BCE10226

INTRODUCTION

- Carbon emissions and environmental protection issues have brought pressure from the International community during Chinese Economic Development

- Recently, the Chinese Govt. announced that carbon emissions per unit of GDP would fall by 60-65% compared with 2005 and non-fossil fuel energy would account for 20% of primary energy consumption by 2030.

- Hence, forecasting energy consumption is significant to emissions reduction and upgrading energy supply in the Beijing-Tianjin-Hebei region. This study thoroughly analyzes carbon emissions' main energy sources, including coal, petrol, natural gas, and coal power in this region.

CAUSES OF CO_2 EMISSIONS

- Due to human activities, the atmospheric concentration of CO_2 has been rising extensively since the Industrial Revolution and has now reached dangerous levels not seen in the last 3 million years.

- Natural sinks remove around the same quantity of CO_2 from the atmosphere that are produced by natural sources. This had kept CO_2 levels balanced and in a safe range.

- Human sources of CO_2 emissions are much smaller than natural emissions but they have upset the natural balance that existed for many years before the influence of humans by adding extra CO_2 to the atmosphere without removing any.
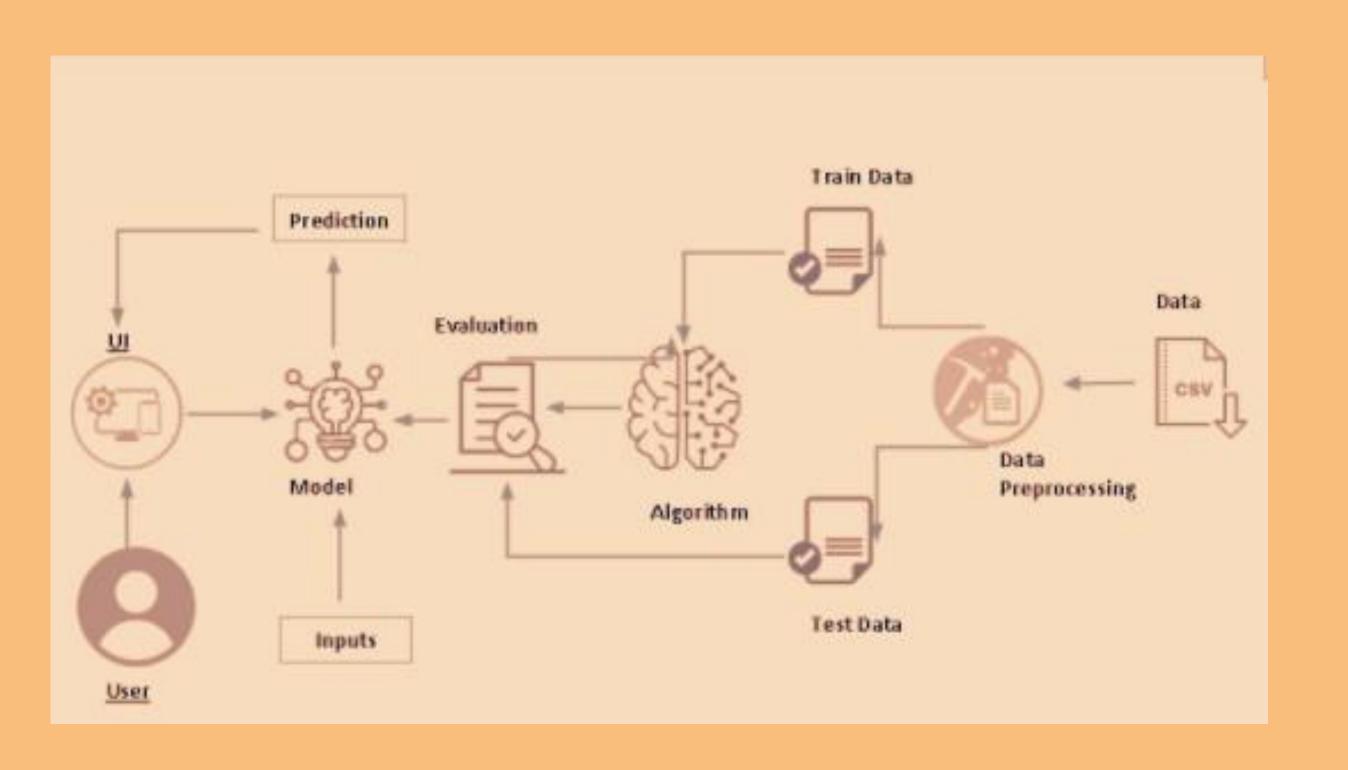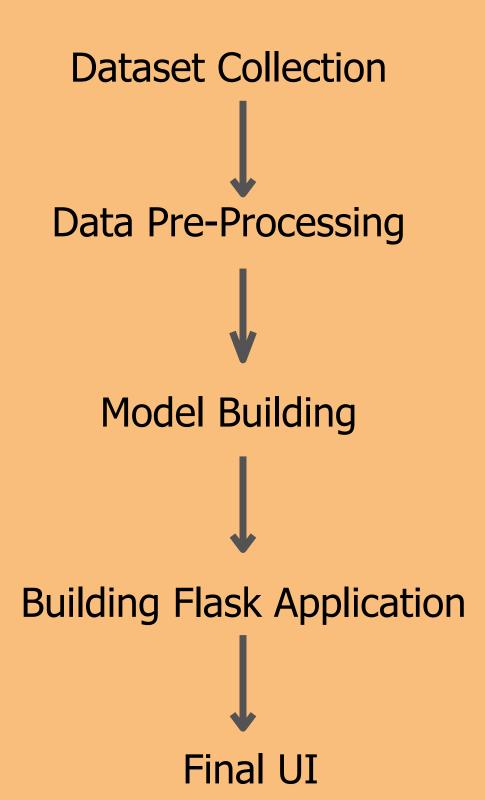
PROBLEM STATEMENT

"A Machine Learning model for calculating CO$_2$ Emissions by country"

Due to the increasingly deteriorating environment, it is time for the government to upgrade the Energy Consumption structure by making use of Machine Learning prediction to analyze and control the CO$_2$ emissions in future
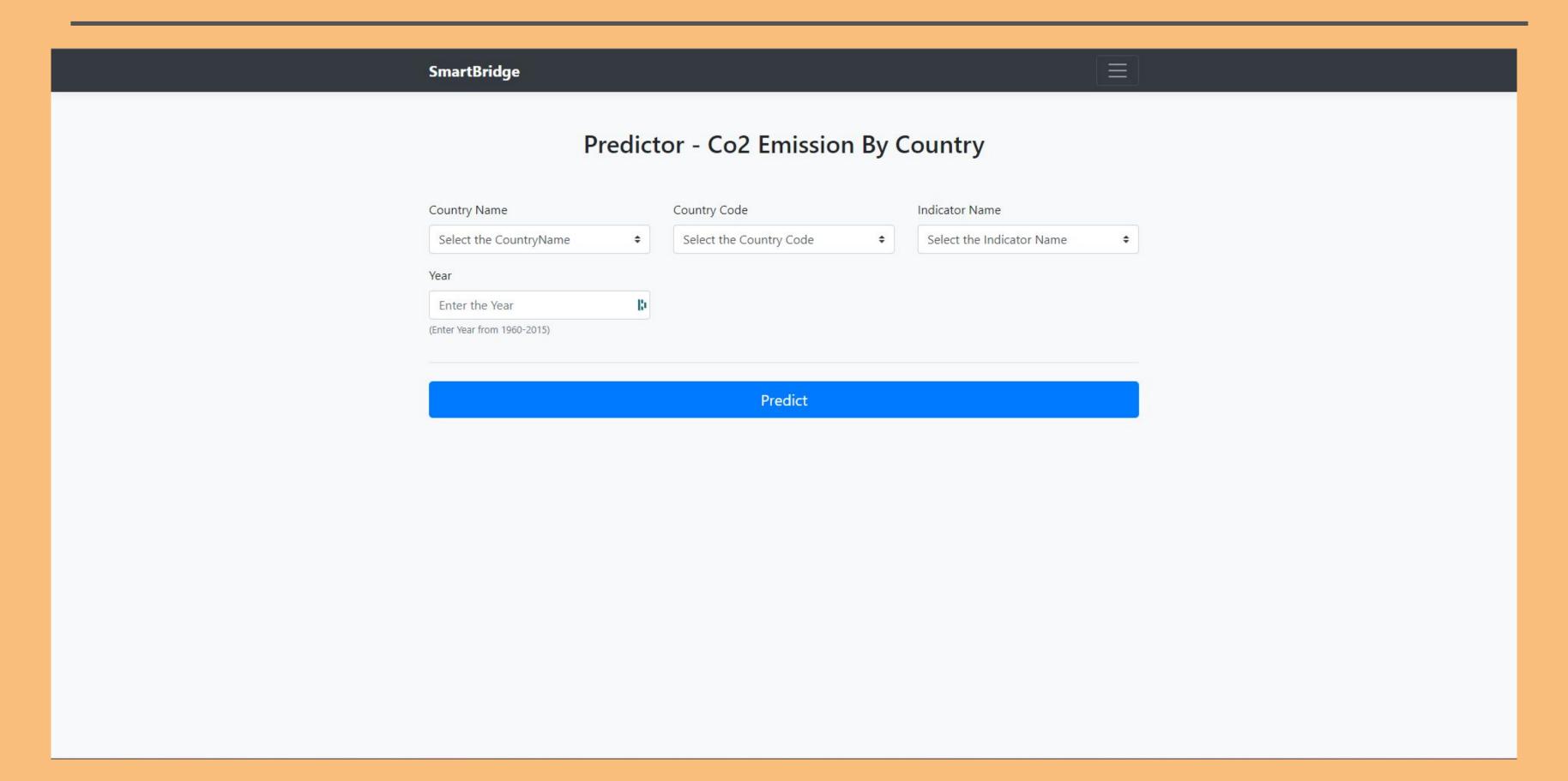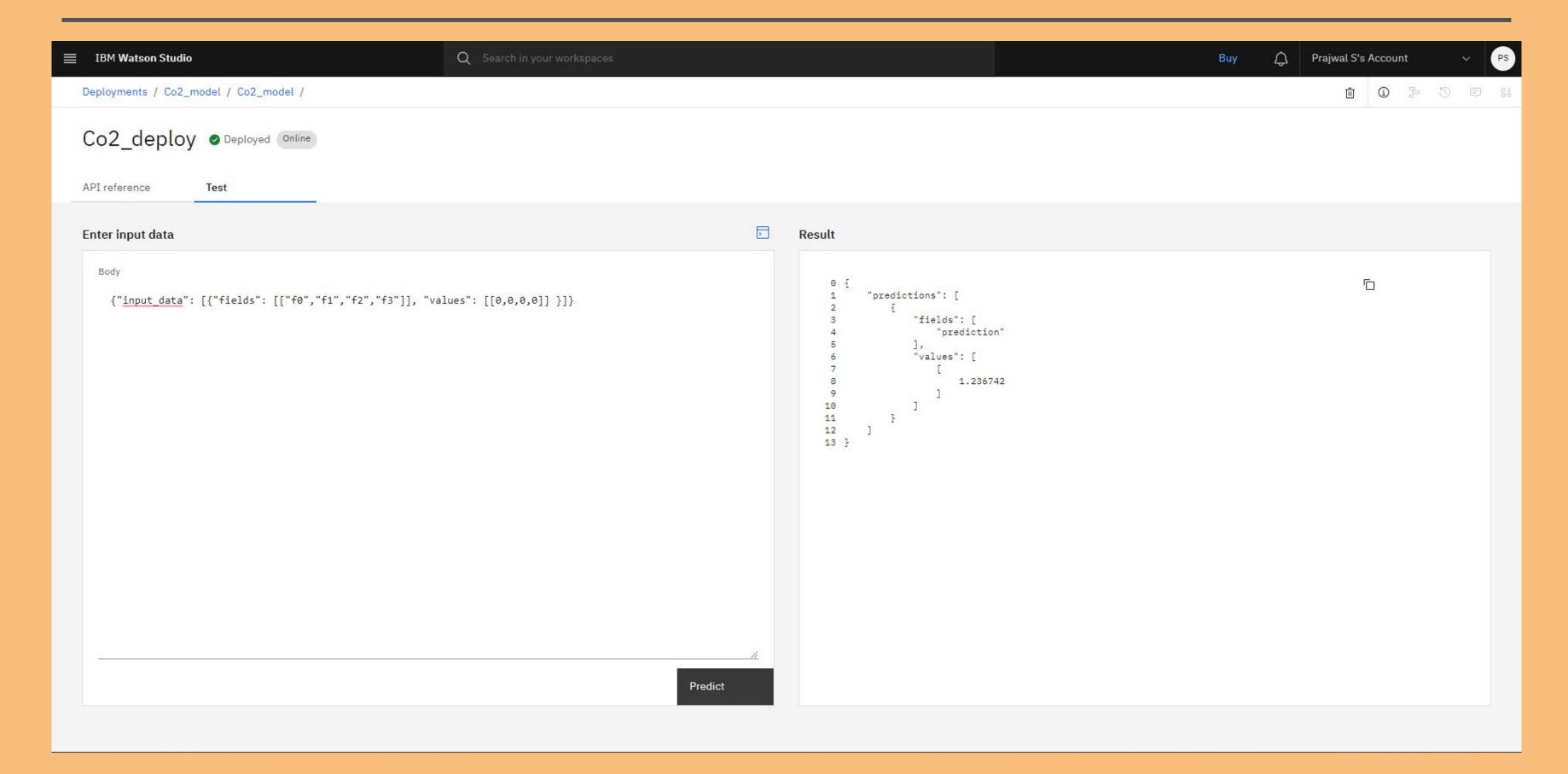
PROJECT ARCHITECTURE & FLOW

Dataset Collection

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Data Pre-Processing

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Model Building

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Building Flask Application

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Final UI

PROJECT UI

PROJECT UI

IBM WATSON DEPLOYMENT

THANKYOU