ML Deployment (LOCAL)

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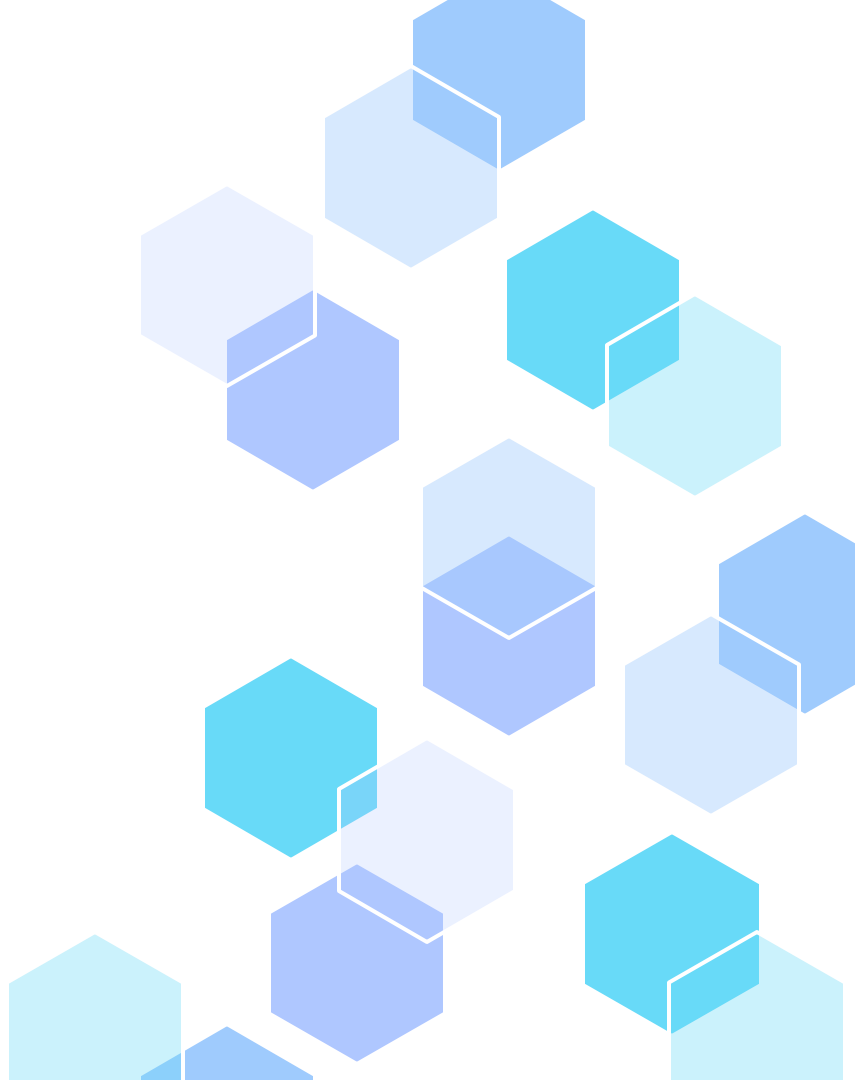You can describe the
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Introduction

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Introduction

n machine learning, "modeling" refers to the process of creating a mathematical representation (called a "model") that can learn patterns from data and make predictions or classifications on new, unseen data by using algorithms to identify relationships within the dataset

Deploying a model refers to integration of trained model into a production environment where it can process real time data and provide output for practical applications and decision makings.

Steps

Build Model

dataset, model.py, model.pkl

User Interface

index.html

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Python Flask App

app.py

Run Model

Combine all file and run!

Background

About

Company XYZ is a real estate firm specializing in property sales and investment advisory services. With an increasing demand for data-driven insights, the company aims to improve its offerings by leveraging machine learning to predict house prices more accurately.

Predictors

Area (square feet): Larger homes typically cost more.
Bedrooms: More bedrooms add value but vary by location.
Bathrooms: Similar to bedrooms; more bathrooms generally increase value
Stories: Multi-story homes may affect price differently than single-story homes
Parking: Availability of parking can significantly impact property desirability and price.

Files Needed

app.py

This is the main Flask application file that serves as the backend for the house price prediction model.
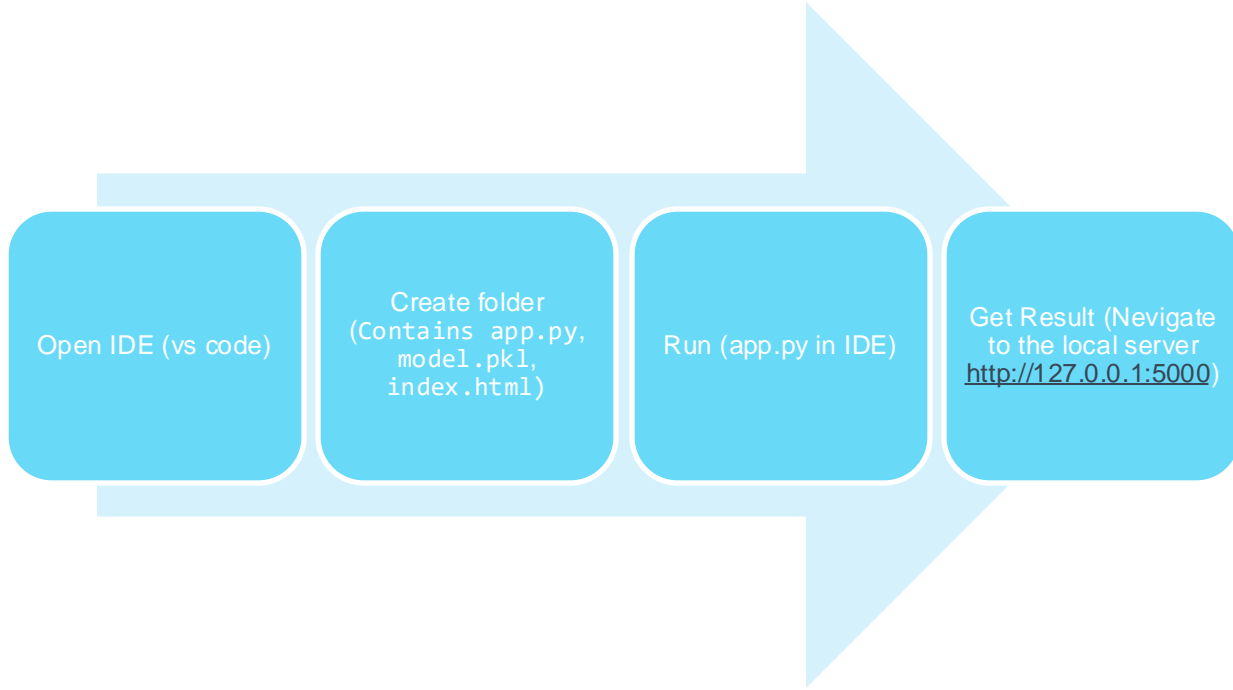
Model.pkl

This file contains the pre-trained machine learning model serialized with Pickle.

index.html

This is the frontend HTML template for the web app, providing the user interfacest

Deploying Model

Open IDE (vs code)

Create folder (Contains `app.py`, `model.pkl`, `index.html`)

Run (`app.py` in IDE)

Get Result (Nevigate to the local server http://127.0.0.1:5000)

Example Output

Thanks!