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1 import streamlit as st
2 import pandas as pd
3 from sklearn.model_selection import train_test_split, GridSearchCV
4 from sklearn.compose import ColumnTransformer
5 from sklearn.pipeline import Pipeline
6 from sklearn.preprocessing import OneHotEncoder, StandardScaler
7 from sklearn.linear_model import LinearRegression
8 from sklearn.ensemble import RandomForestRegressor, GradientBoostingRegressor
9 import joblib
10
11 # Load the dataset (Replace 'laptop_data.csv' with your actual file path)
12 df_laptops = pd.read_csv("C:\\Users\\visha\\Downloads\\laptop_data.csv")
13
14 # Drop the `Unnamed: 0` column
15 df_laptops.drop(columns=['Unnamed: 0'], inplace=True)
16
17 # Preprocess the data
18 df_laptops['Ram'] = df_laptops['Ram'].astype(str).str.replace('GB', '', regex=False)
19 df_laptops['Ram'] = pd.to_numeric(df_laptops['Ram'])
20 df_laptops['Weight'] = df_laptops['Weight'].astype(str).str.replace('kg', '', regex=False)
21 df_laptops['Weight'] = pd.to_numeric(df_laptops['Weight'])
22
23 # Separate target variable and features
24 X = df_laptops.drop('Price', axis=1)
25 y = df_laptops['Price']
26
27 # Split data into training and testing sets
28 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
29
30 # Define categorical and numerical features
31 categorical_features = ['Company', 'TypeName', 'OpSys']
32 numerical_features = ['Inches', 'Ram', 'Weight']
33
```