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1 import streamlit as st
2 import pickle
3 import pandas as pd
4 import numpy as np
5 import datetime
6 import time
7 def main():
8
9     st.title("Flight-Price-Prediction")
10    st.write(" --Built using StreamLit-- ")
11
12    st.sidebar.subheader("Select Departure")
13    m = pd.to_datetime("today").month
14    d = pd.to_datetime("today").day
15    y = pd.to_datetime("today").year
16
17    dep = st.sidebar.date_input("Day", datetime.date(
18        y, m, d))
19    if dep is not None:
20        mon_d = dep.month
21        day_d = dep.day
22
23        hour_1 = st.sidebar.selectbox("Hour", list(
24            range(1, 25)))
25        minute_1 = st.sidebar.selectbox("Minute",
26            list(range(0, 61)))
27
28        st.subheader("Departure Time :")
29        x = "2020" + "/" + str(mon_d) + "/" + str(day_d
30        ) + " " + str(hour_1) + ":" + str(minute_1)
31        if x is not None:
32
33            op = pd.to_datetime([x])
34            if op is not None:
35                st.write(op.item())
36
37    st.sidebar.subheader("Select Arrival")
38    arr = st.sidebar.date_input("Day.", datetime.date
39        (y, m, d + 1))
40    if arr is not None:
41        mon_a = arr.month

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37         day_a = arr.day
38
39         hour_2 = st.sidebar.selectbox("Hour.", list(
range(1, 25)), 2)
40         minute_2 = st.sidebar.selectbox("Minute.",
list(range(0, 61)))
41
42         st.subheader("Arrival Time :")
43         x1 = "2020" + "/" + str(mon_a) + "/" + str(day_a
) + " " + str(hour_2) + ":" + str(minute_2)
44         if x1 is not None:
45
46             op1 = pd.to_datetime([x1])
47             if op1 is not None:
48                 st.write(op1.item())
49
50         # source
51         st.subheader("Select Source")
52         source = st.selectbox(" ", ['Bangalore', 'Mumbai'
, 'Delhi', 'Kolkata', "Chennai"])
53         if source == "Bangalore":
54             source_inp = 0
55         elif source == "Chennai":
56             source_inp = 1
57         elif source == "Delhi":
58             source_inp = 2
59         elif source == "Kolkata":
60             source_inp = 3
61         elif source == "Mumbai":
62             source_inp = 4
63
64         st.write("Source -- ", source)
65
66         # destination
67         st.subheader("Select Destination")
68         dest = st.selectbox("", ['Bangalore', 'Cochin', '
Hyderabad', "New Delhi", 'Delhi', 'Kolkata'])
69
70         if dest == "Bangalore":
71             dest_inp = 0
72         elif dest == "Cochin":

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73         dest_inp = 1
74     elif dest == "Delhi":
75         dest_inp = 2
76     elif dest == "Hyderabad":
77         dest_inp = 3
78     elif dest == "Kolkata":
79         dest_inp = 4
80     elif dest == "New Delhi":
81         dest_inp = 5
82
83     st.write("Destination -- ", dest)
84
85     # airline
86     st.subheader("Select Airline")
87     airline = st.selectbox(" ", ["Air India", "GoAir", "IndiGo", "Jet Airways", "Multiple carriers", "SpiceJet",
88                                     "Vistara", "Air Asia"])
89
90     if airline == "Jet Airways":
91         air_inp = 0
92     elif airline == "IndiGo":
93         air_inp = 1
94     elif airline == "Air India":
95         air_inp = 2
96     elif airline == "Multiple carriers":
97         air_inp = 3
98     elif airline == "SpiceJet":
99         air_inp = 4
100    elif airline == "Vistara":
101        air_inp = 5
102    elif airline == "Air Asia":
103        air_inp = 6
104    elif airline == "GoAir":
105        air_inp = 7
106
107    st.write("Airline -- ", airline)
108
109    # stops
110    st.subheader("Select Stops")
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111     stop = st.selectbox("    ", [0, 1, 2, 3, 4])
112     st.write("Stops -- ", stop)
113
114     if st.checkbox("Duration"):
115         if op1 is not None:
116             st.write((op1.item() - op.item()))
117
118     op2 = str(op1 - op)
119     if op2 is not None:
120         hr = int(op2.split(' ')[0][-9:-7])
121         mini = int(op2.split(' ')[0][-6:-4])
122
123
124
125     rfr_model = pickle.load(open("flight_price_pred.
pk1", "rb"))
126
127     # prediction
128
129     par = [air_inp, source_inp, dest_inp, stop,
mon_d, day_d, hour_1, minute_1, hour_2, minute_2, hr
, mini]
130
131     if st.checkbox("PREDICT"):
132         pred = rfr_model.predict([par])
133         for i in pred:
134             st.write("Your Fare Price is : ", round(
i, 3), "INR")
135             st.write("Happy and Safe Journey ...")
136
137     st.write("""    """)
138     st.write("""    """)
139
140
141
142
143 if __name__ == "__main__":
144     main()
145
146 # streamlit run file name

```