**Fourth Progress Report**

**of**

Project - I

**Subject Code: 4IT31**

**Academic Year 2021-22**

**Group Number : G - 13**

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**Topic : House Price Prediction**

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**1 – Previous Work Done :**

* Sign-Up / Login
* Data Cleaning & Pre-Processing
* UI Design
* Prediction Page
* Data Cleaning & Pre-Processing
* Handling Categorical Column
* Selecting Model
* UI Design

**2 – Further Work Done on Modules :**

* **Training Model:**

X\_train, X\_test, Y\_train, Y\_test = train\_test\_split(X, Y, test\_size=0.2, random\_state=292)

final\_LR\_model = LinearRegression()

pipe = make\_pipeline(column\_trans, final\_LR\_model)

pipe.fit(X\_train, Y\_train)

Y\_pred = pipe.predict(X\_test)

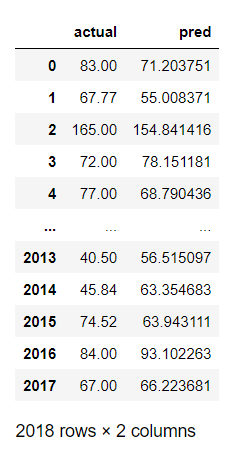
df\_output = pd.DataFrame({

"actual" : Y\_test.tolist(),

"pred" : Y\_pred.tolist()

})

df\_output

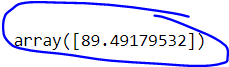


* **Dumping Model:**

import pickle

pickle.dump(pipe, open('BangloreHousePricePredictioModel.pkl', 'wb'))

pipe.predict(pd.DataFrame([['1st Phase JP Nagar', '2', '1000', '2']], columns=['location', 'size\_BHK', 'total\_sqft', 'bathroom']))



pipe.predict(pd.DataFrame([['Indira Nagar', '2', '1000', '2']], columns=['location', 'size\_BHK', 'total\_sqft', 'bathroom']))



* **Backend:**
* **Description:** In this module we had connected our trained model with this Django website.

from django.shortcuts import render

import pandas as pd

import pickle

def predict\_price\_actual(request):

model = pickle.load(open('BangloreHousePricePredictioModel.pkl', 'rb'))

location = request.GET['location']

sqft = request.GET['sqft']

bath = request.GET['bath']

bhk = request.GET['bhk']

print(location, "\n")

print(sqft, "\n")

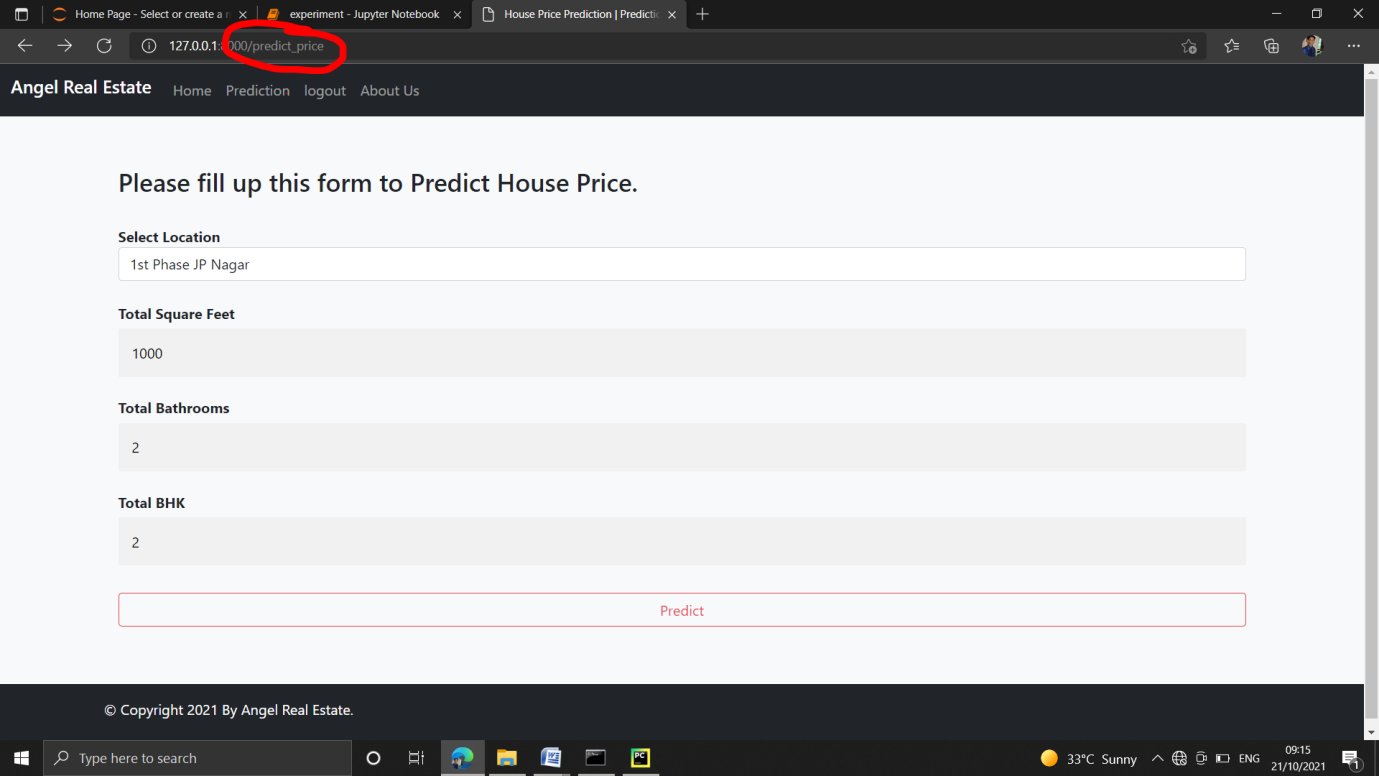
print(bath, "\n")

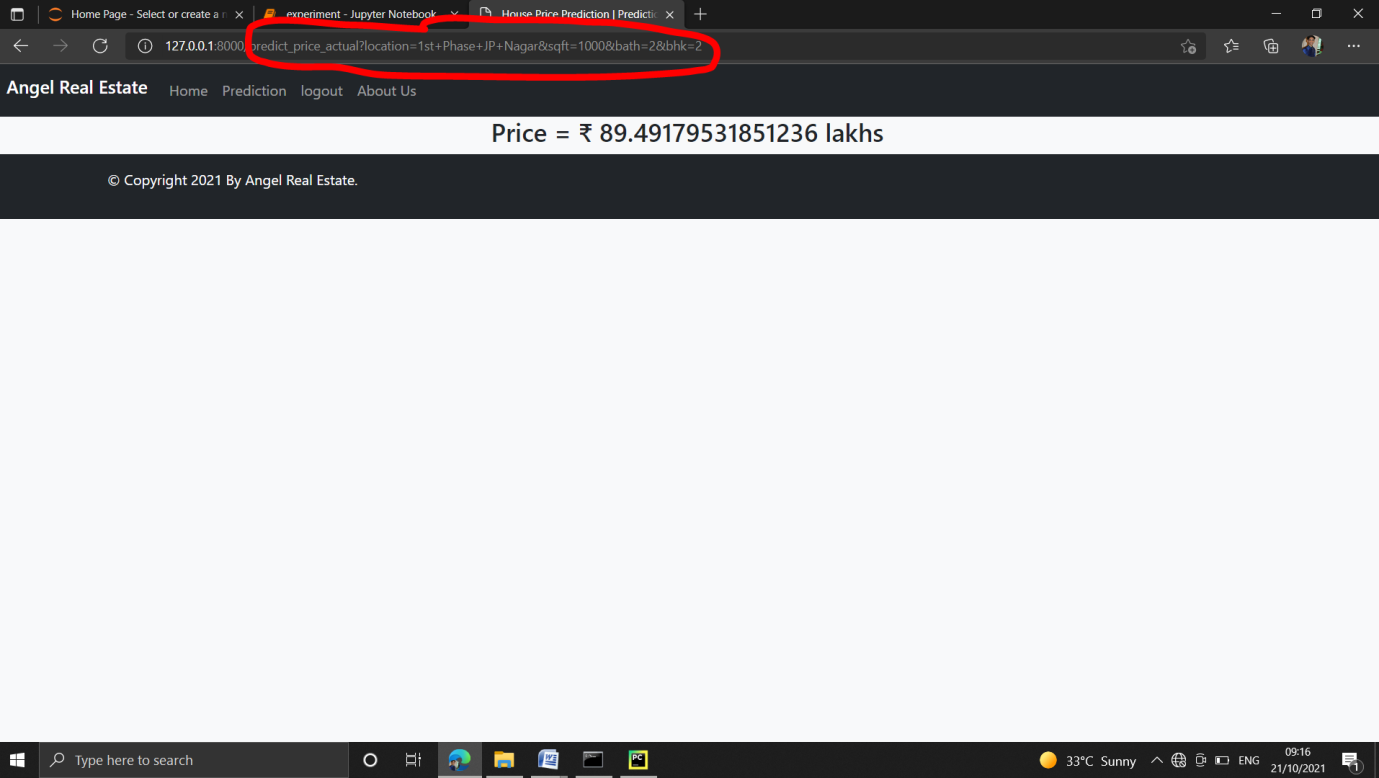
print(bhk, "\n")

prediction = model.predict(pd.DataFrame([[location, bhk, sqft, bath]], columns=["location", "size\_BHK", "total\_sqft", "bathroom"]))

print(prediction, "rupees")

return render(request, "result.html", {'ans': prediction[0]})

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**3 – Ending Note:**

Here we conclude our project-I. We had completed all our work remaining from last report. Please give your valuable suggestions so we can now work on it and can complete it in permit able time.

**4 - Conclusion:**

As part of second mid presentation we have completed our SRS and other three progress report and also, we are done with around 80% - 90% work on actual system implementation. If some changes are required then we will take that into consideration and do changes in completed work.

\*\*\*\*\**The End*\*\*\*\*\*