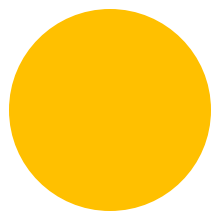
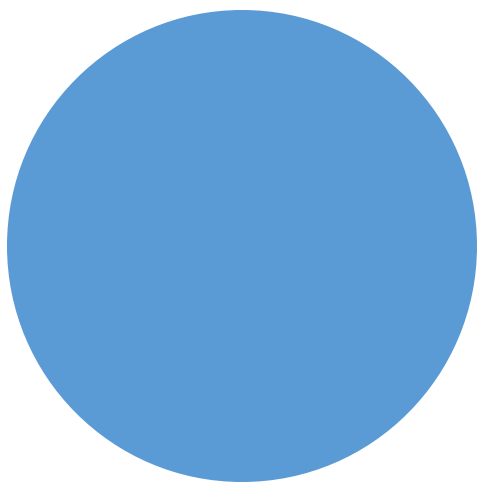




House Price

Model Evaluation



Goal

Best model to predict
house price for given
data.

Algorithms:



LINEAR
REGRESSION



DECISION TREES



RANDOM FOREST

Model Evaluation Criteria



Root Mean Squared Error
(RMSE).



Mean Absolute Percentage
Error (MAPE).



R-Squared Error.



Adjusted R-Squared Error.

Linear Regression

			RMSE	MAPE	R - Squared	Adjusted R-Squared
Linear Regression	Default	Train Error	0.18225917	1.13403486	0.79142493	0.77343283
		Test Error	0.20846171	1.29376968	0.72802226	0.66613969
	Grid Search	Train Error	0.18225917	1.13403486	0.79142493	0.77343283
		Test Error	0.20846171	1.29376968	0.72802226	0.66613969
	Random Search	Train Error	0.18225917	1.13403486	0.79142493	0.77343283
		Test Error	0.20846171	1.29376968	0.72802226	0.66613969

Decision Tree

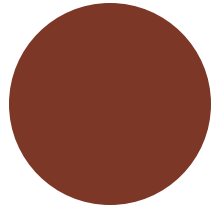
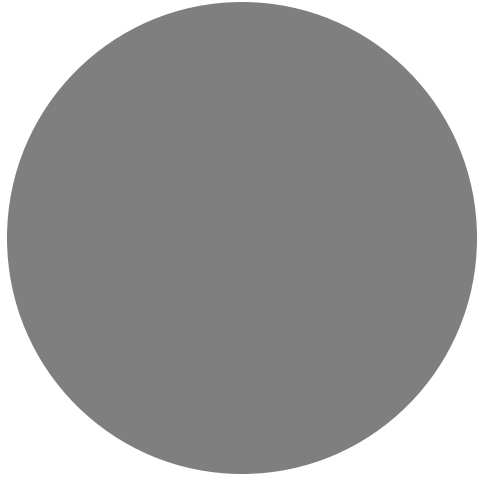
			RMSE	MAPE	R - Squared	Adjusted R-Squared
Decision Tree	Default	Train Error	0.01250646	3.66149553	0.9990179	0.99893318
		Test Error	0.29407918	3.66046157	0.45873582	0.33558302
	Grid Search	Train Error	0.16767252	3.52028927	0.77776628	0.75859596
		Test Error	0.26502682	3.57394068	0.53107731	0.42438422
	Random Search	Train Error	0.21108144	3.42880411	0.77776628	0.69352321
		Test Error	0.247617725	3.50406665	0.53107731	0.45568213

Random Forest

			RMSE	MAPE	R - Squared	Adjusted R-Squared
Random Forest	Default	Train Error	0.09212574	3.50269171	0.94671001	0.94211311
		Test Error	0.21289806	3.46007006	0.71632299	0.6517785
	Grid Search	Train Error	0.08066241	3.51335325	0.9591468	0.95562272
		Test Error	0.20681562	3.38641162	0.73230059	0.67139146
	Random Search	Train Error	0.07677961	3.51170004	0.9629852	0.95979223
		Test Error	0.20425054	3.37371216	0.73889982	0.6794922

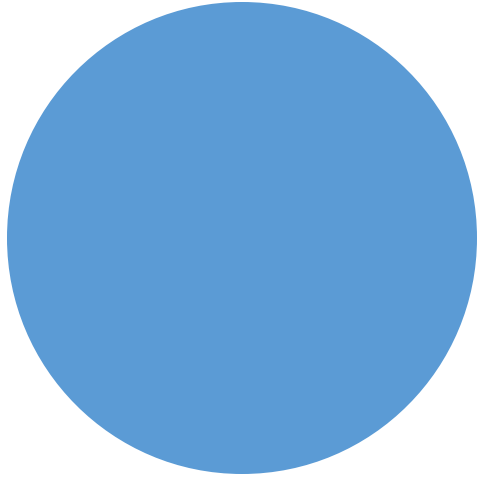
Comparing Models

			RMSE	MAPE	R - Squared	Adjusted R-Squared
Linear Regression	Default	Test Error	0.20846171	1.29376968	0.72802226	0.66613969
	Grid Search	Test Error	0.208461718	1.29376968	0.72802226	0.66613969
	Random Search	Test Error	0.208461718	1.29376968	0.72802226	0.66613969
Decision Tree	Default	Test Error	0.29407918	3.66046157	0.45873582	0.33558302
	Grid Search	Test Error	0.26502682	3.57394068	0.53107731	0.42438422
	Random Search	Test Error	0.247617725	3.50406665	0.53107731	0.45568213
Random Forest	Default	Test Error	0.21289806	3.46007006	0.71632299	0.6517785
	Grid Search	Test Error	0.20681562	3.38641162	0.73230059	0.67139146
	Random Search	Test Error	0.20425054	3.37371216	0.73889982	0.6794922



Award for best model goes to!!

Linear Regression



Thanks

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