

Housing Price Prediction with



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Dataset

Paris Housing Prices

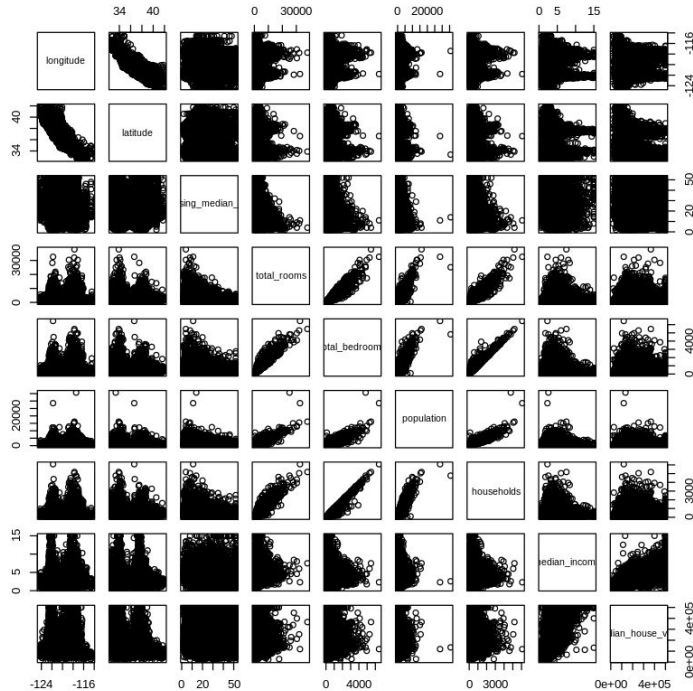
	squareMeters	numberOfRooms	hasYard	hasPool	floors	cityCode	cityPartRange	numPrevOwners	made	isNewBuilt	hasStormProtector	basement	attic	garage	hasStorageRoom	hasGuestRoom	price
0	75523	3	0	1	63	9373	3	8	2005	0	1	4313	9005	956	0	7	7559081.5
1	80771	39	1	1	98	39381	8	6	2015	1	0	3653	2436	128	1	2	8085989.5
2	55712	58	0	1	19	34457	6	8	2021	0	0	2937	8852	135	1	9	5574642.1
3	32316	47	0	0	6	27939	10	4	2012	0	1	659	7141	359	0	3	3232561.2
4	70429	19	1	1	90	38045	3	7	1990	1	0	8435	2429	292	1	4	7055052.0

California Housing Prices

	longitude	latitude	housing_median_age	total_rooms	total_bedrooms	population	households	median_income	median_house_value
0	-114.31	34.19	15.0	5612.0	1283.0	1015.0	472.0	1.4936	66900.0
1	-114.47	34.40	19.0	7650.0	1901.0	1129.0	463.0	1.8200	80100.0
2	-114.56	33.69	17.0	720.0	174.0	333.0	117.0	1.6509	85700.0
3	-114.57	33.64	14.0	1501.0	337.0	515.0	226.0	3.1917	73400.0
4	-114.57	33.57	20.0	1454.0	326.0	624.0	262.0	1.9250	65500.0

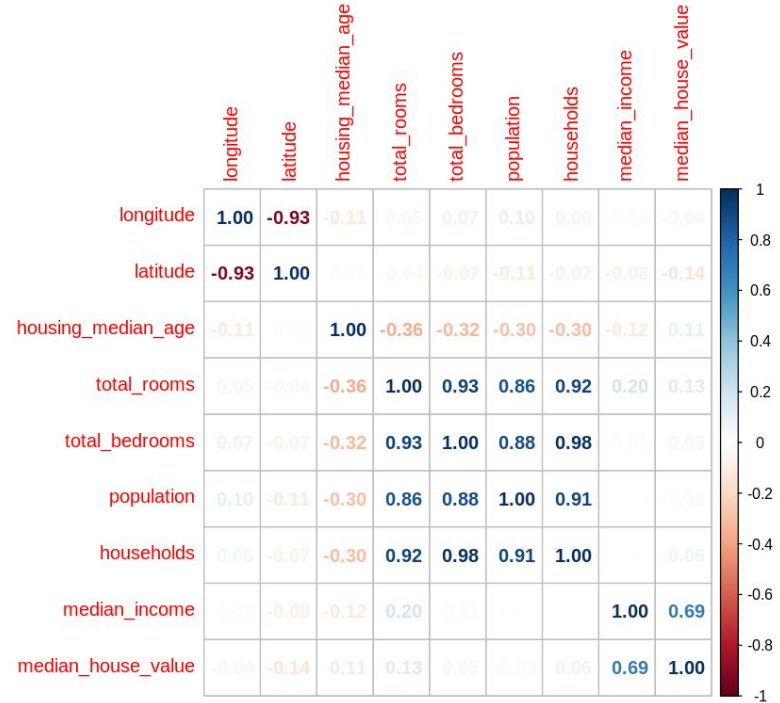
Data Analysis (California)

pairplot



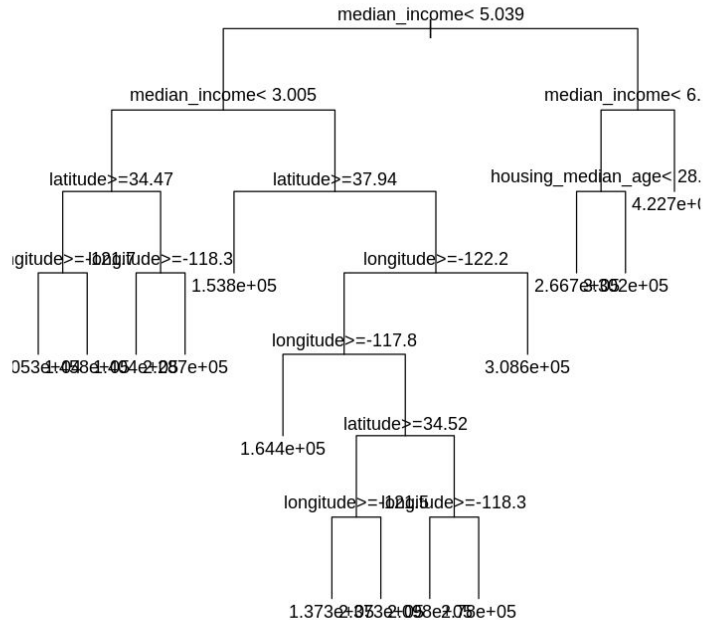
```
pairs(df)
```

correlation matrix



```
corrplot(cor(df), method = 'number')
```

Decision Tree



Results

RMSE : 7.635315e+04

Rsquared : 5.702031e-01

MAE : 5.635402e+04

Housing	1	2	3	4	5
Prediction	90.532	278.017	153.839	237.252	422.703
Actual price	40.900	225.200	98.900	220.800	406.700

Random Forest : 10 Trees

Decision Tree results

RMSE : 7.635315e+04

Rsquared : 5.702031e-01

MAE : 5.635402e+04

Random Forest results

RMSE : 5.628661e+04

Rsquared : 7.695189e-01

MAE : 3.859095e+04

Housing	1	2	3	4	5
Decision Tree Prediction	90.532	278.017	153.839	237.252	422.703
Random Forest Prediction	53.882	217.434	135.866	207.036	312.078
Actual price	40.900	225.200	98.900	220.800	406.700

Shiny Demo

