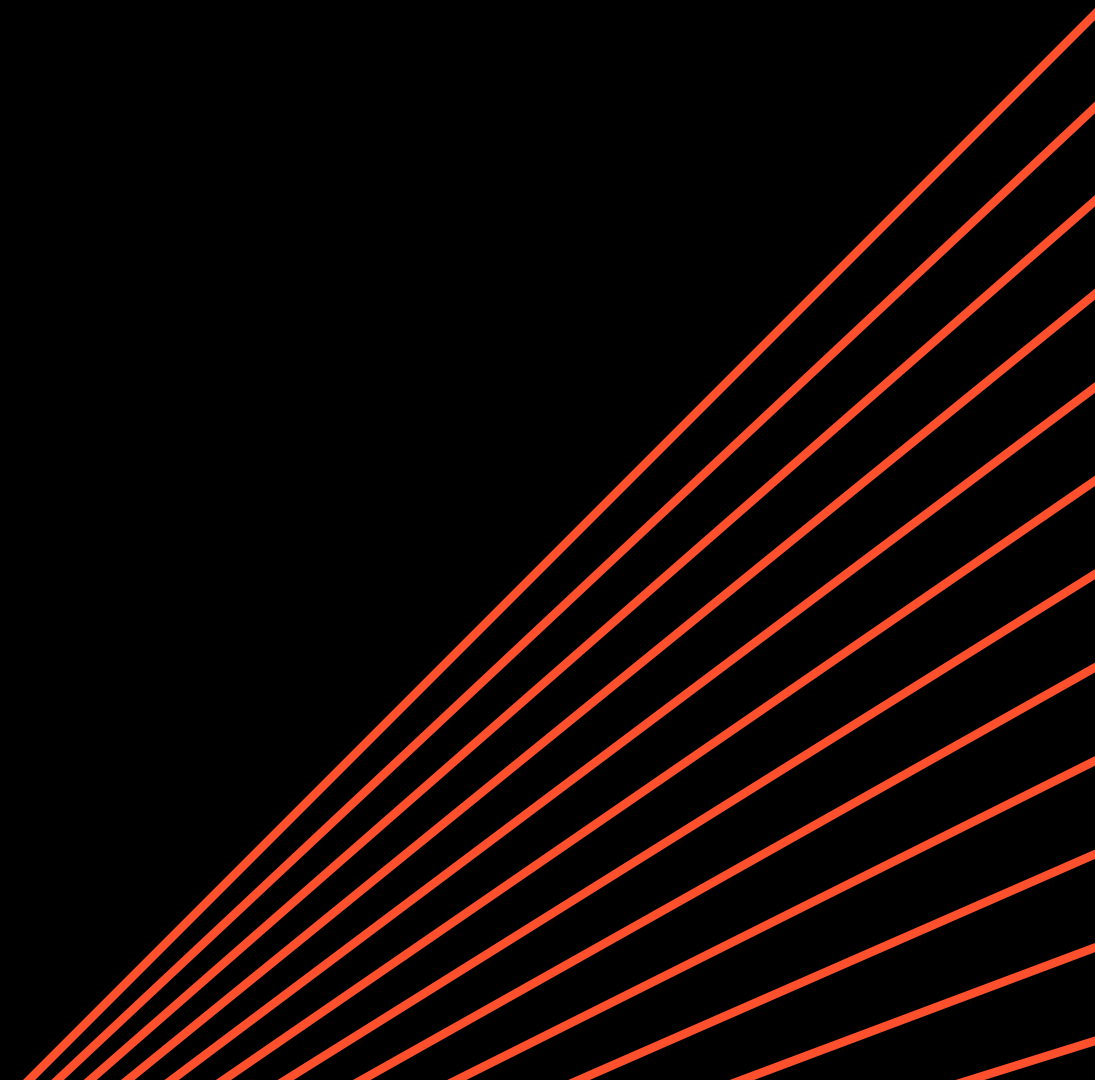


GM-DAN YANGI NARX

Firdavs Yusupov

Data Science



SENING NARX QO'YOLMAYOTGAN DO'STING

Firdavs Yusupov

GM o'zida yangi avtomobil ishlab chiqarib jahon bozoriga sotishni niyat qildi. Unda o'zi ishlab chiqarmoqchi bo'layotgan avtomobil xarakteristikasi haqida ma'lumotlar bor. Jahon bozorida bu avtomobilga qancha narx belgilash haqida ikkilanmoqda

 **Telegram:** [@firdavs_yusupov_official](https://t.me/firdavs_yusupov_official)

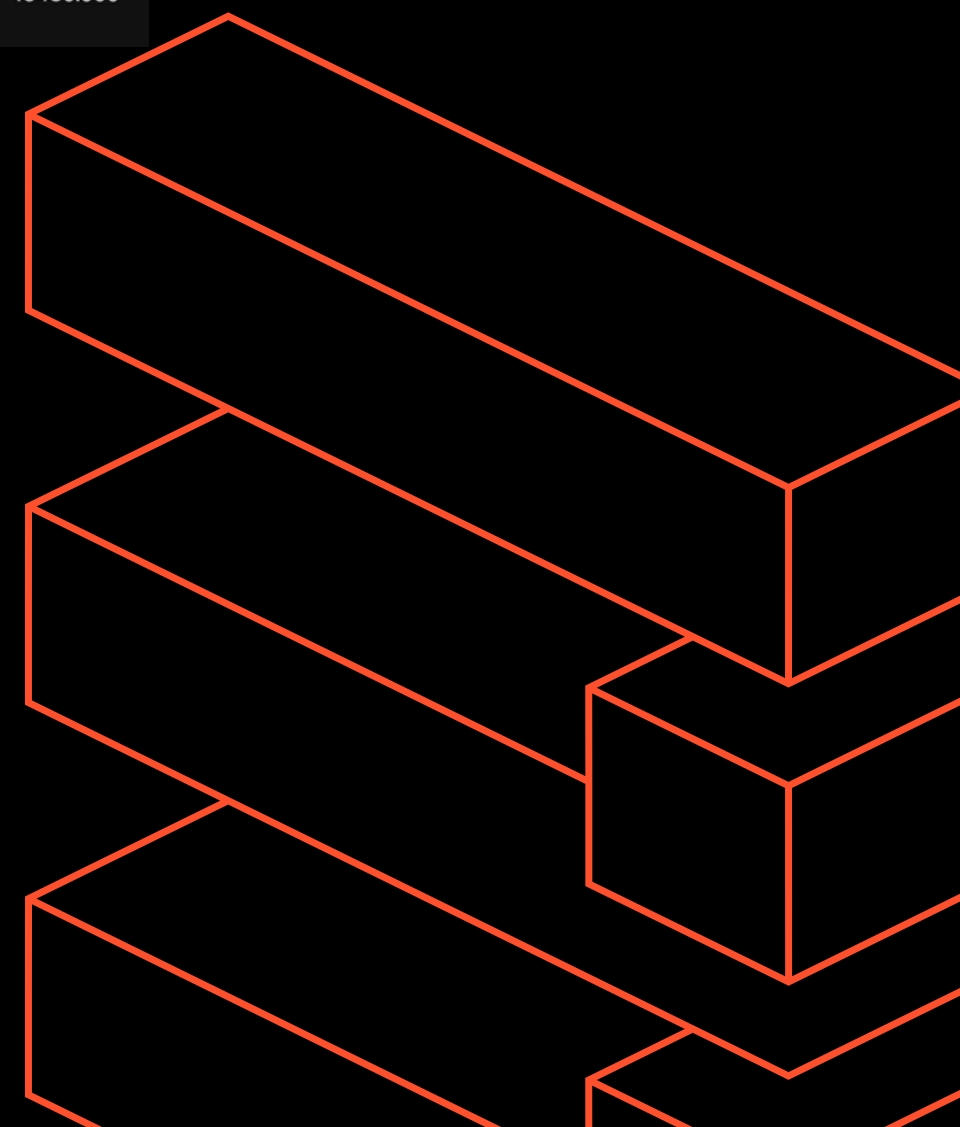
 **GitHub:** <https://github.com/firdavsyusupov>

 **LinkedIn:** <https://www.linkedin.com/in/firdavs-yusupov>

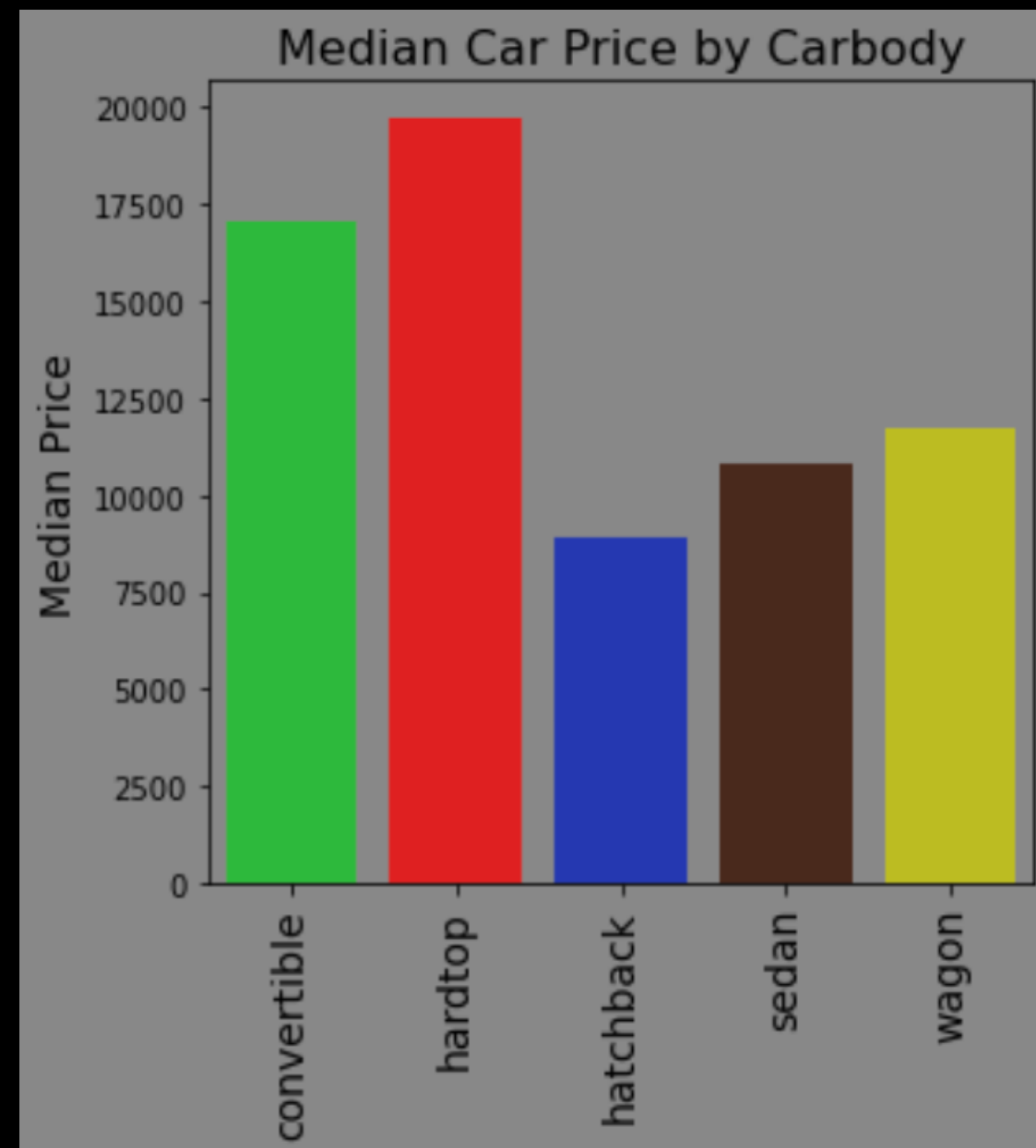
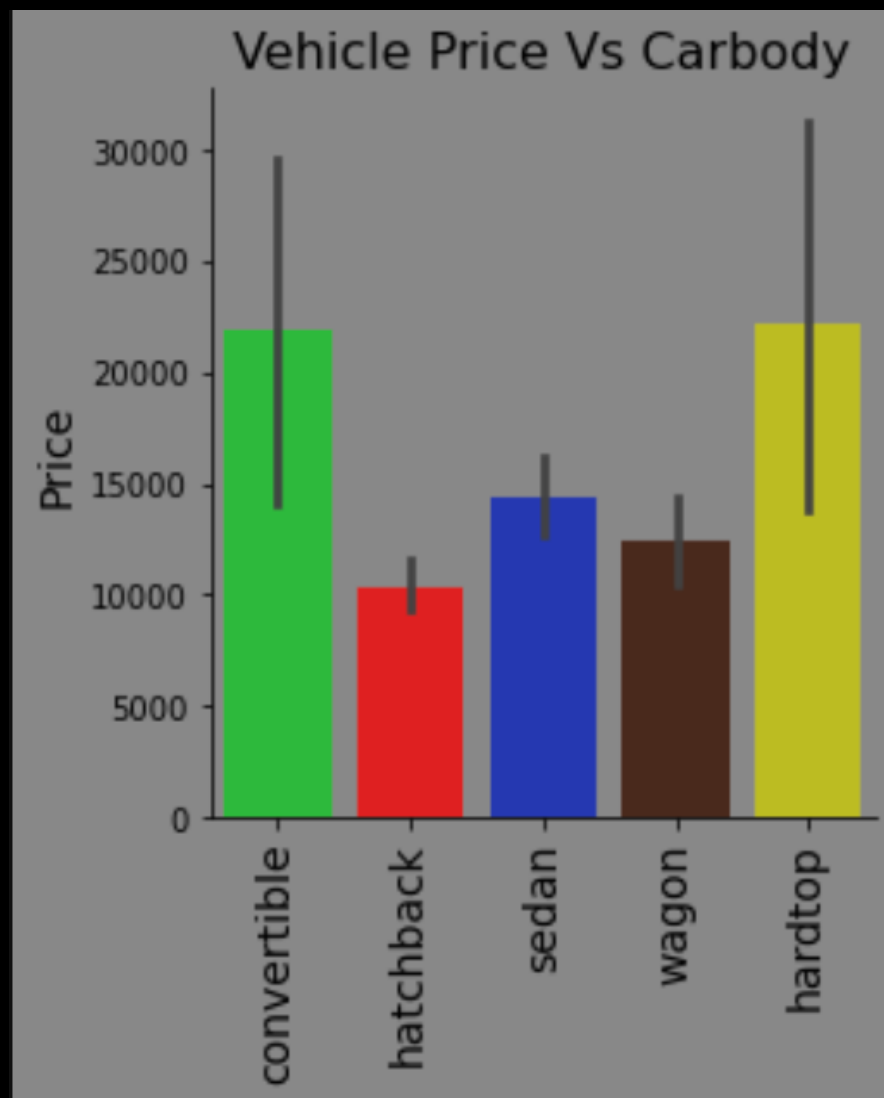
DATASET

	ID	symboling	name	fueltypes	aspiration	doornumbers	carbody	drivewheels	enginelocation	wheelbase	...	enginesize	fuelsystem	boreratio	stroke	compressionratio	horsepower	peakrpm	citympg	highwaympg	price
0	1	3	alfa-romero giulia	gas	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	9.0	111	5000	21	27	13495.000
1	2	3	alfa-romero stelvio	gas	std	two	convertible	rwd	front	88.6	...	130	mpfi	3.47	2.68	9.0	111	5000	21	27	16500.000
2	3	1	alfa-romero Quadrifoglio	gas	std	two	hatchback	rwd	front	94.5	...	152	mpfi	2.68	3.47	9.0	154	5000	19	26	16500.000
3	4	2	audi 100 ls	gas	std	four	sedan	fwd	front	99.8	...	109	mpfi	3.19	3.40	10.0	102	5500	24	30	13950.000
4	5	2	audi 100ls	gas	std	four	sedan	4wd	front	99.4	...	136	mpfi	3.19	3.40	8.0	115	5500	18	22	17450.000
5	6	2	audi fox	gas	std	two	sedan	fwd	front	99.8	...	136	mpfi	3.19	3.40	8.5	110	5500	19	25	15250.000
6	7	1	audi 100ls	gas	std	four	sedan	fwd	front	105.8	...	136	mpfi	3.19	3.40	8.5	110	5500	19	25	17710.000
7	8	1	audi 5000	gas	std	four	wagon	fwd	front	105.8	...	136	mpfi	3.19	3.40	8.5	110	5500	19	25	18920.000
8	9	1	audi 4000	gas	turbo	four	sedan	fwd	front	105.8	...	131	mpfi	3.13	3.40	8.3	140	5500	17	20	23875.000
9	10	0	audi 5000s (diesel)	gas	turbo	two	hatchback	4wd	front	99.5	...	131	mpfi	3.13	3.40	7.0	160	5500	16	22	17859.167
10	11	2	bmw 320i	gas	std	two	sedan	rwd	front	101.2	...	108	mpfi	3.50	2.80	8.8	101	5800	23	29	16430.000

- Datasetni tozalash
- Datasetdagi qaysi ustunlar narxga ta'sir qilishini aniqlang
- GM avtomobil xarakteristikasini kiritisa, jahon bozorida qancha narx belgilash kerakligini haqida ma'lumot beruvchi dastur tuzing

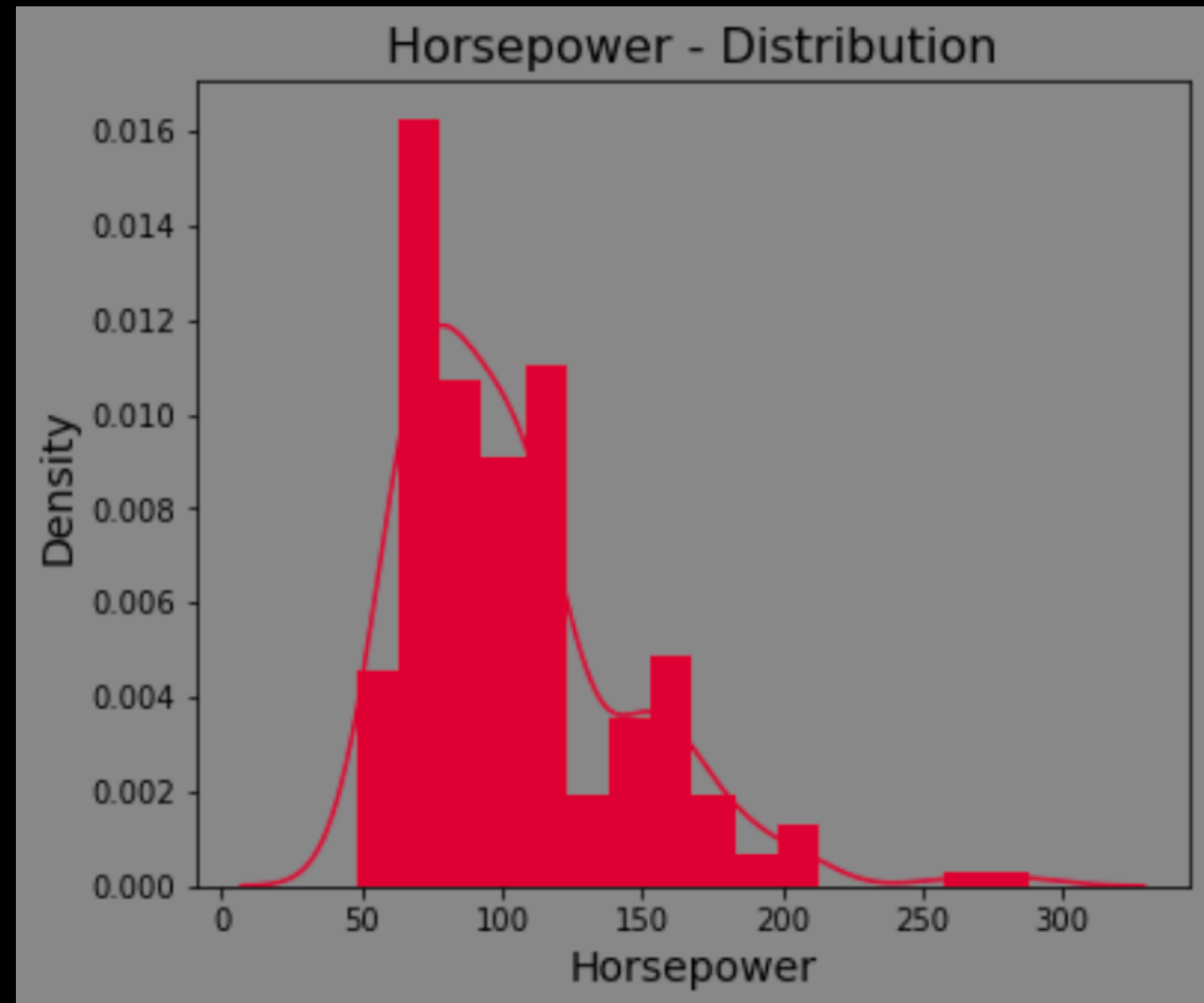
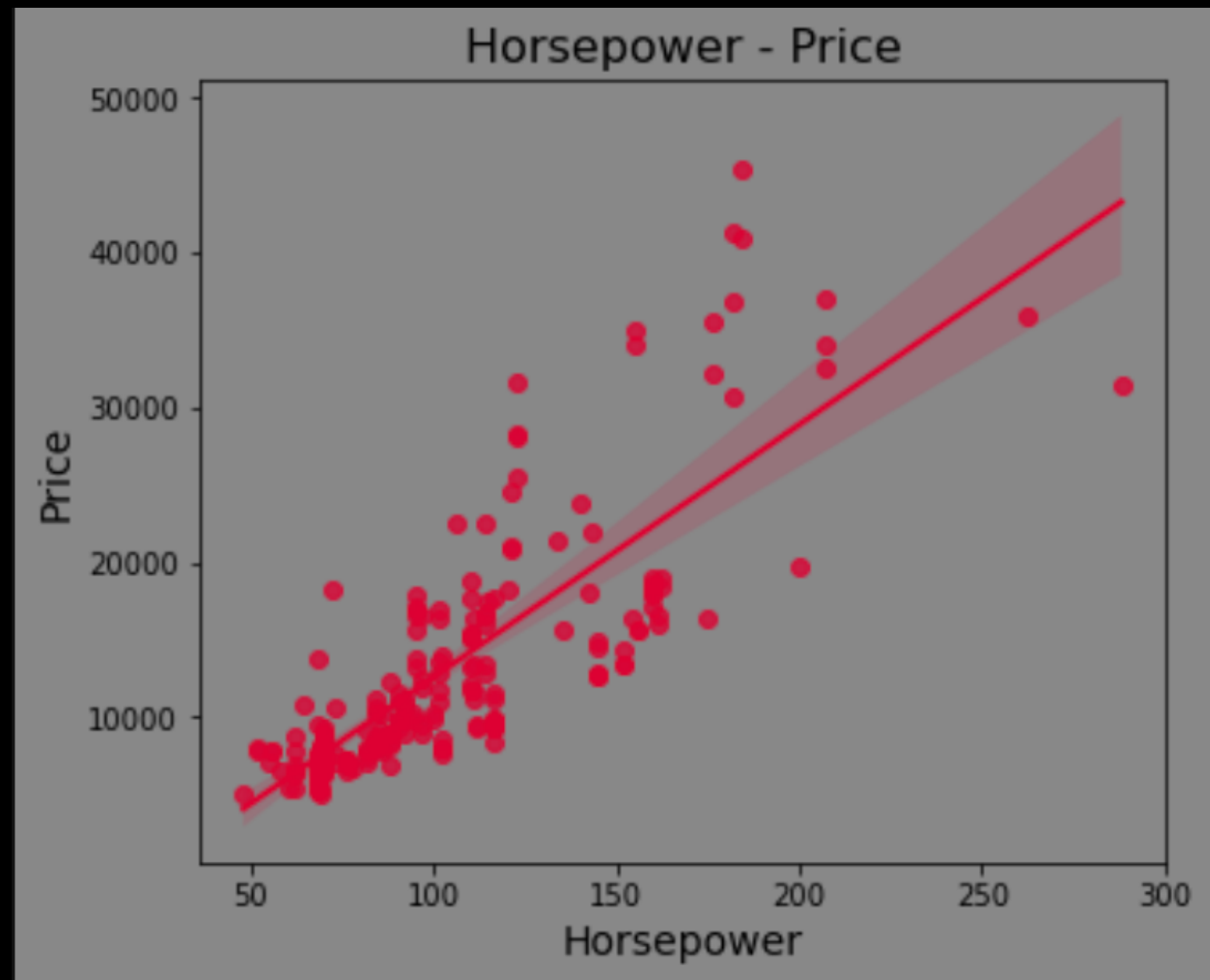


ANALYSIS

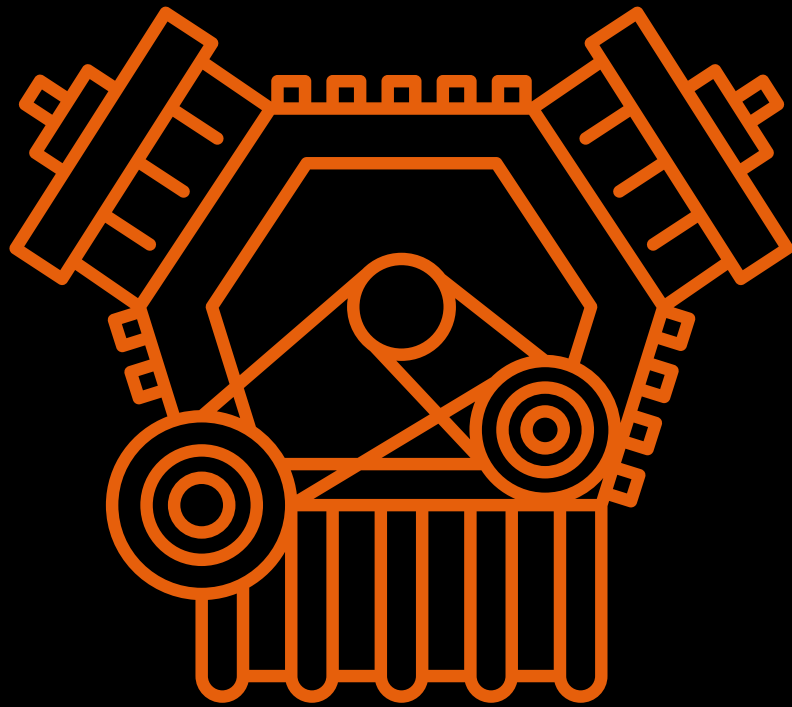
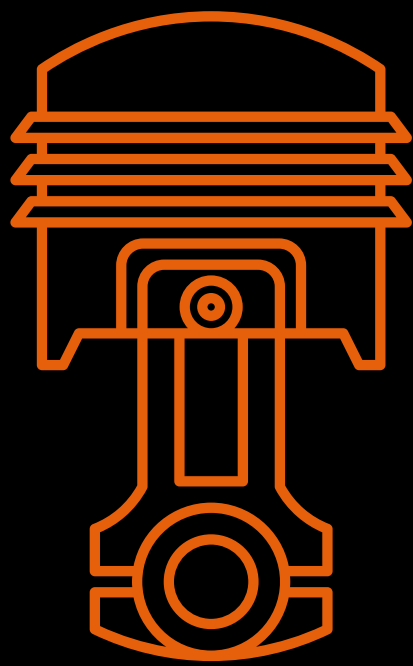
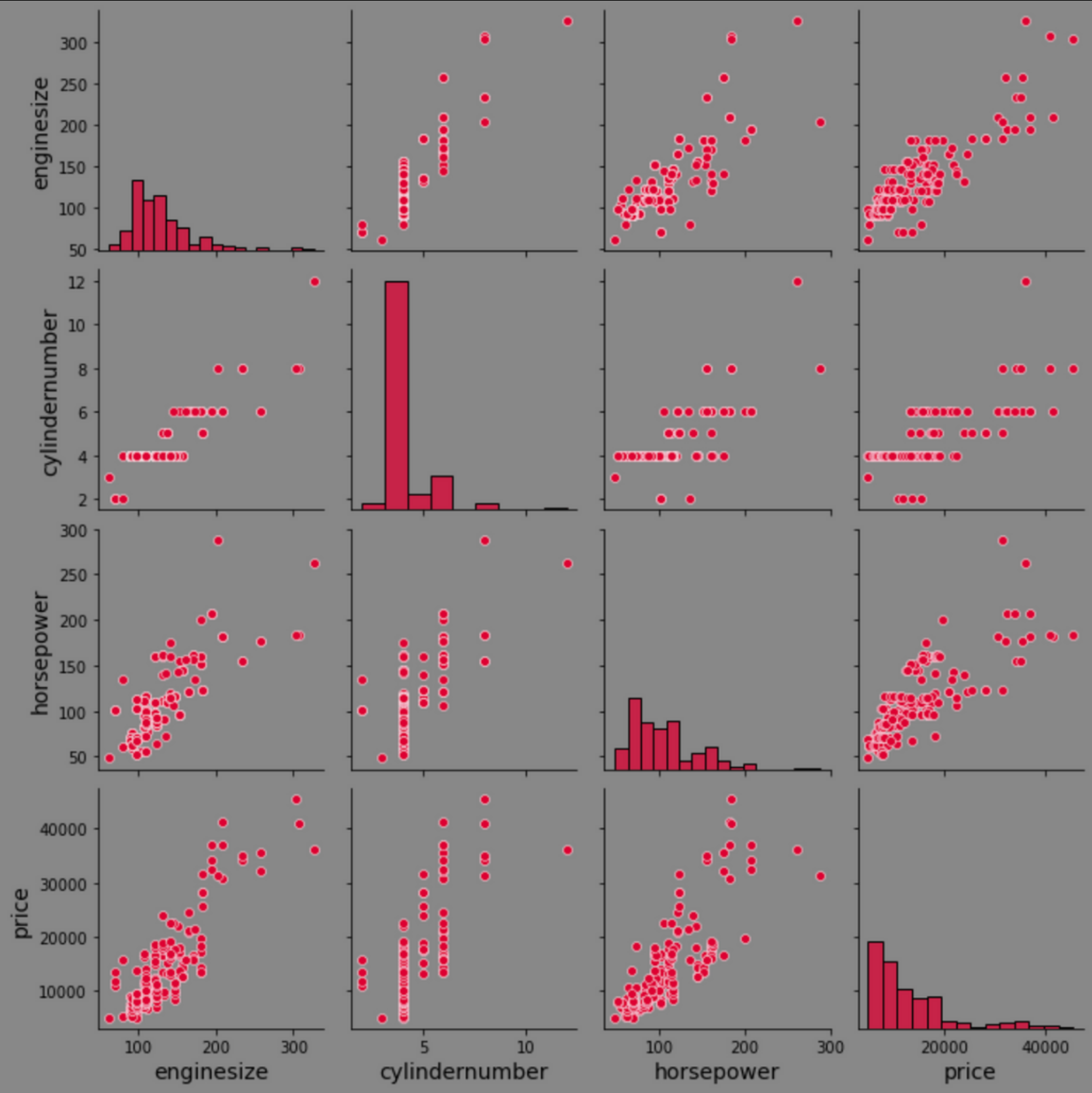


- Avtomobil narxi va kuzov uslubi
- Kuzov turi bo'yicha o'rtacha avtomobil narxi

ANALYSIS



ANALYSIS



PREDICT

```
X = df[['carlength', 'curbweight', 'horsepower']]
y = df['price']

pred = linear_model.LinearRegression().fit(X.values, y).predict([[168.8, 2548, 111]])

x_train, x_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 16)

model = DecisionTreeRegressor()
model.fit(x_train, y_train)
y_pred = model.predict(x_test)
print(f"Model Accuracy: {round(r2_score(y_test, y_pred)*100)}%")
print('Predictions:', pred, '\n\n')
```

Model Accuracy: 93%
Predictions: [13881.3356267]

- Prediction

