



MAAŞ TAHMİNİ PROJESİ

GÖKÇE NUR SÖNMEZ
GAMZE BOZKUŞ
SİMGE LALE
DENİZ ÖZDEMİRLİ

İÇERİK

1

VERİ SETİ

2

ANALİZ

3

MODELLEME

4

WEB ENTEGRASYONU





Step 1

VERİ SETİ

Bu veri seti bir şirketteki çalışanların maaşları hakkında bilgi içermektedir. Her satırda farklı bir çalışan temsil ediliyor.

AGE

GENDER

EDUCATION LEVEL

JOB TITLE

YEARS of EXPERIENCE

SALARY

Step
2

ANALİZ

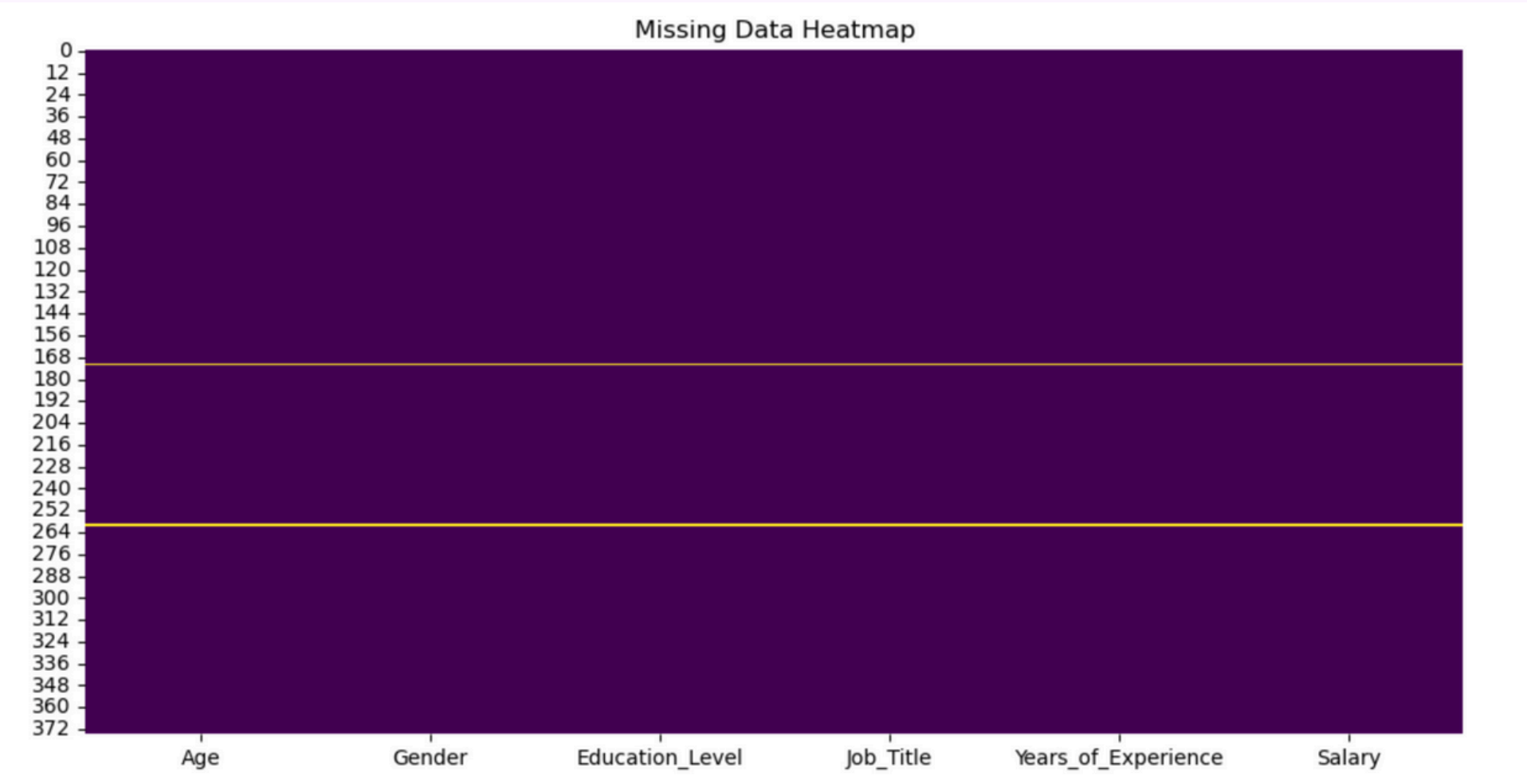
gözlem

(375,6)

öznitelik

outlier

AGE	float64
GENDER	object
EDUCATION_LEVEL	object
JOB_TITLE	object
YEARS_OF_EXPERIENCE	float64
SALARY	float64



	count	mean	std	min	25%	50%	75%	max
Age	373.0	37.431635	7.069073	23.0	31.0	36.0	44.0	53.0
Years_of_Experience	373.0	10.030831	6.557007	0.0	4.0	9.0	15.0	25.0
Salary	373.0	100577.345845	48240.013482	350.0	55000.0	95000.0	140000.0	250000.0

kategorik kolon

- **Gender**
- **Education_Level**

nümerik kolon

- **Age**
- **Years_of_Experience**
- **Salary**

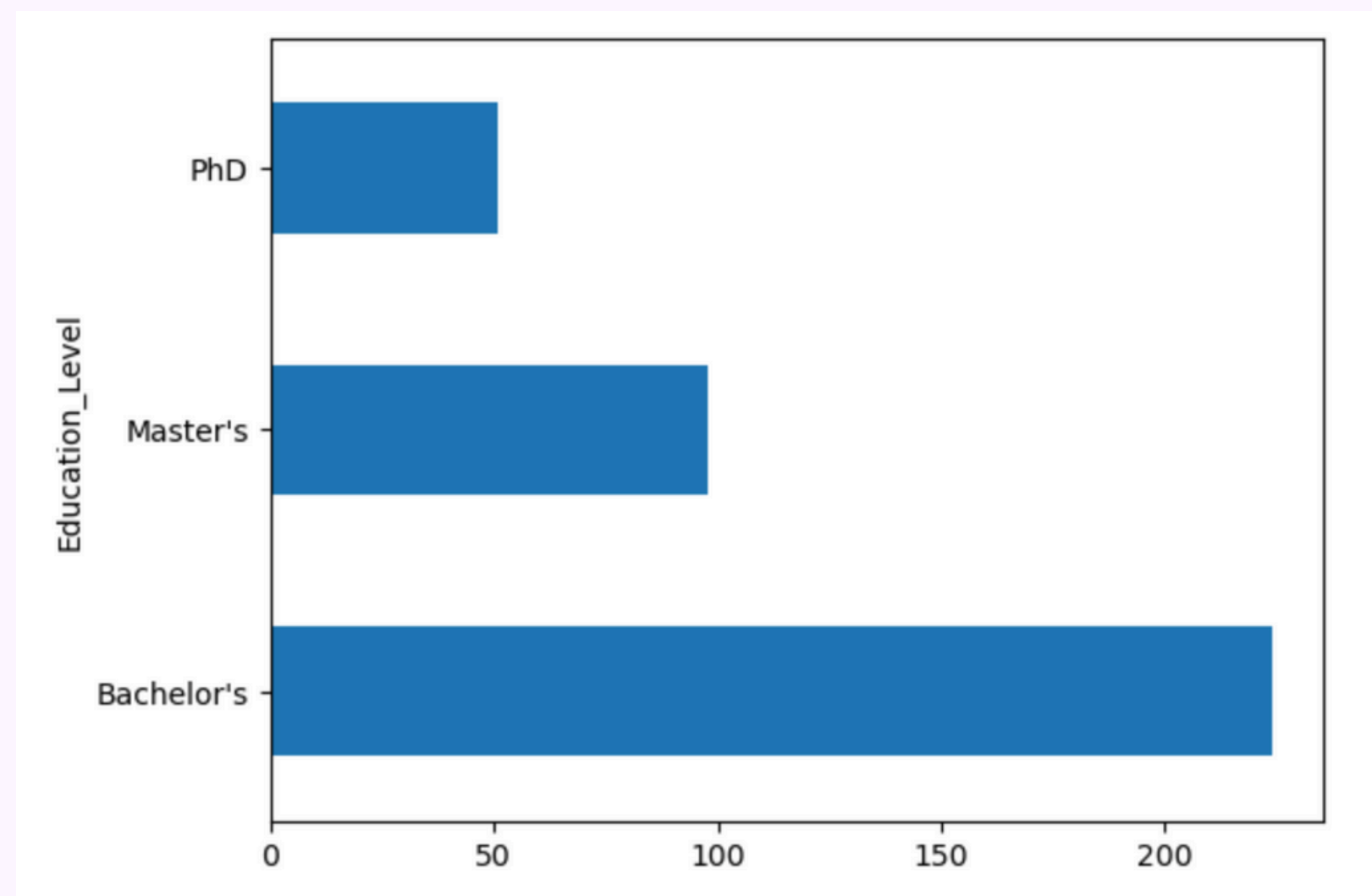
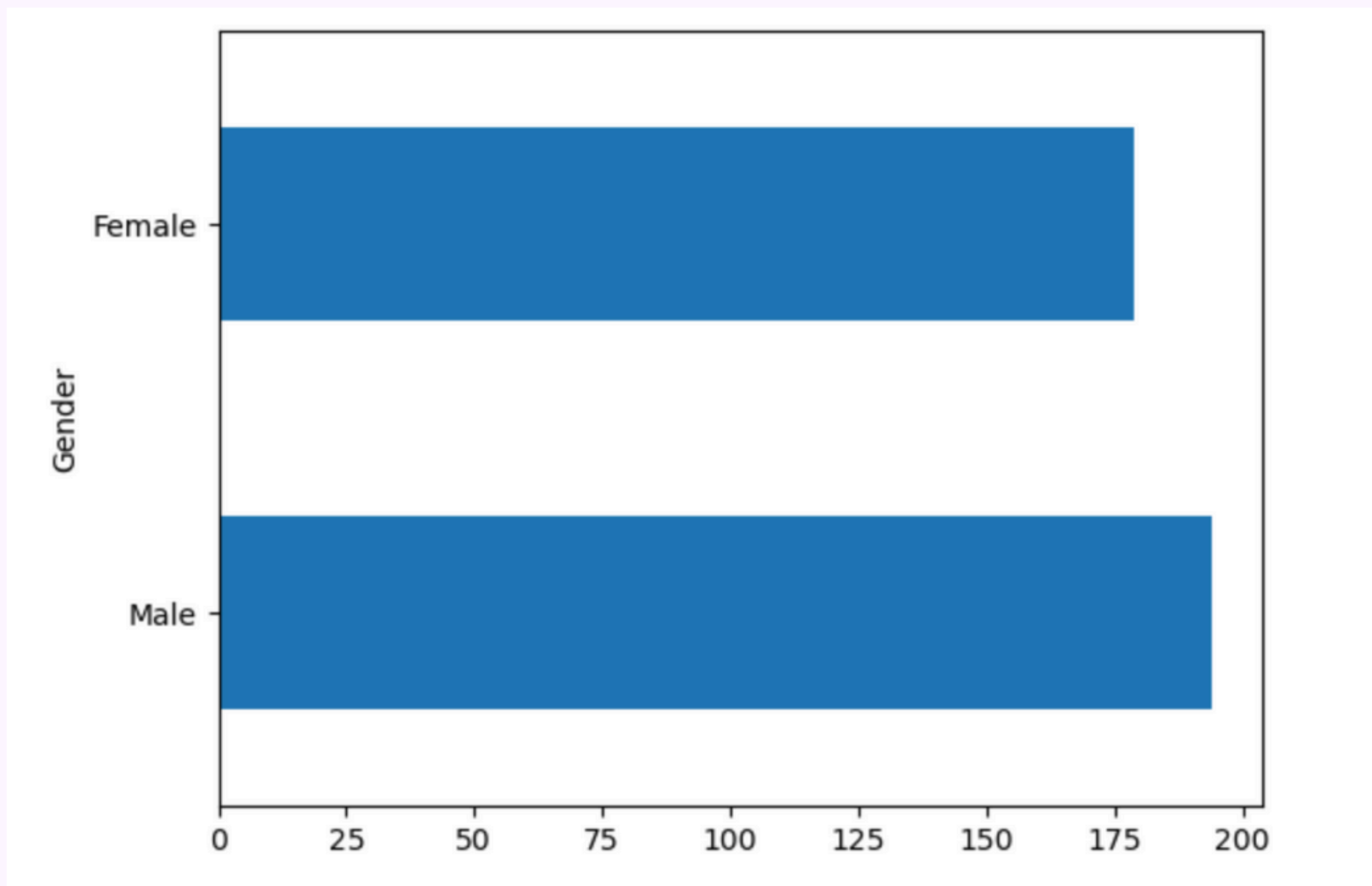
bins = [0, 30, 45, 60]
labels = ['Young', 'Mid', 'Senior']

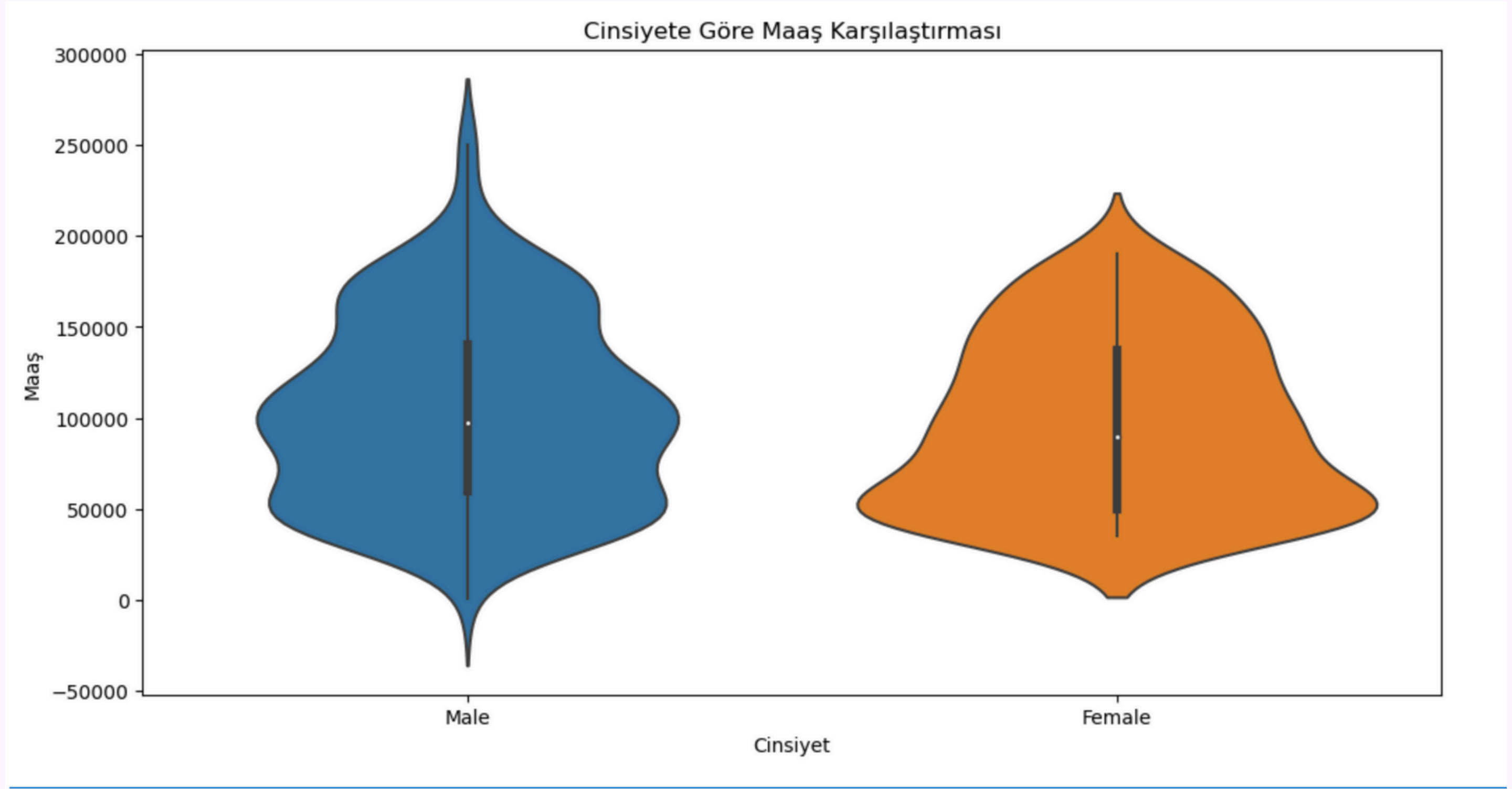
kardinal kolon

- **Job_Title**

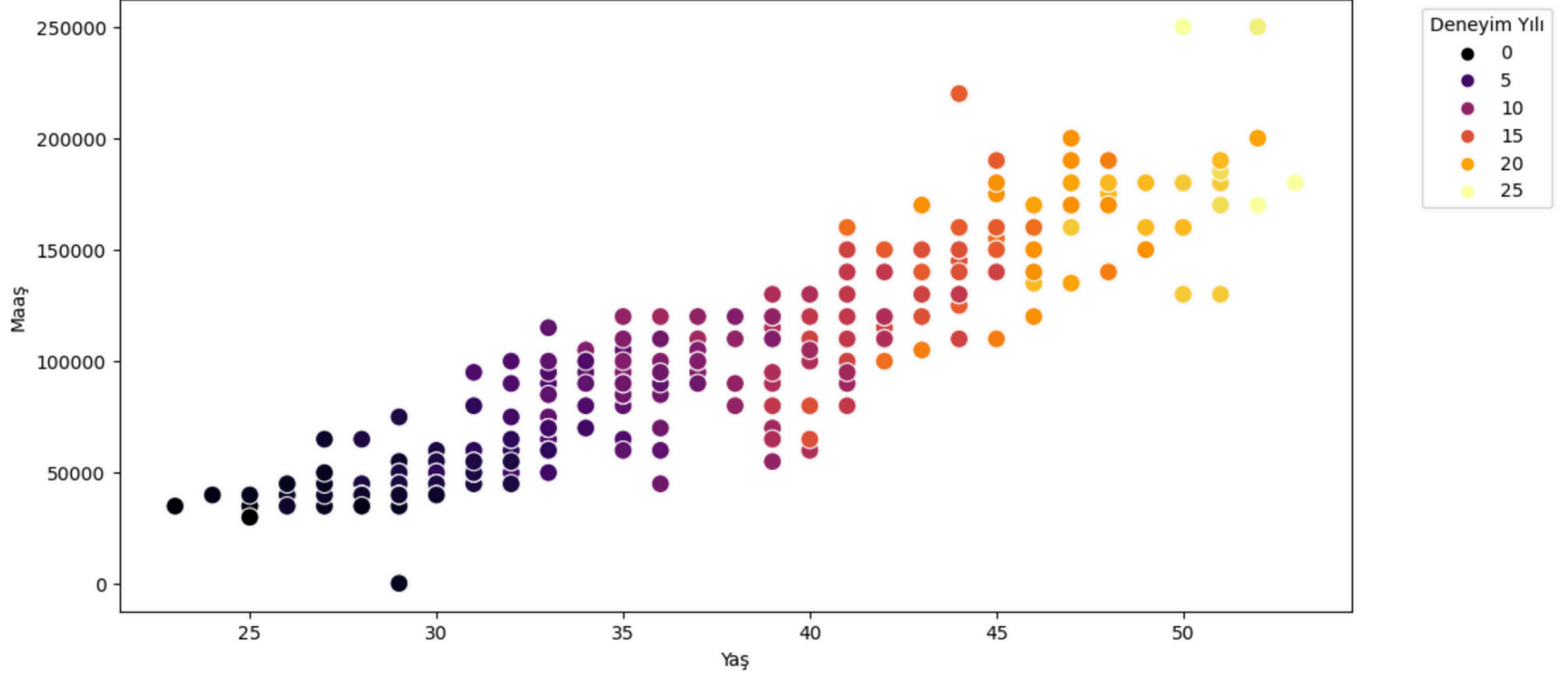


Job_Title	job_title_bert_cluster
Marketing Coordinator	7
Marketing Manager	7
Marketing Specialist	7
Director of Marketing	7
Digital Marketing Manager	7
Content Marketing Manager	7
Marketing Coordinator	7
Senior Marketing Manager	7

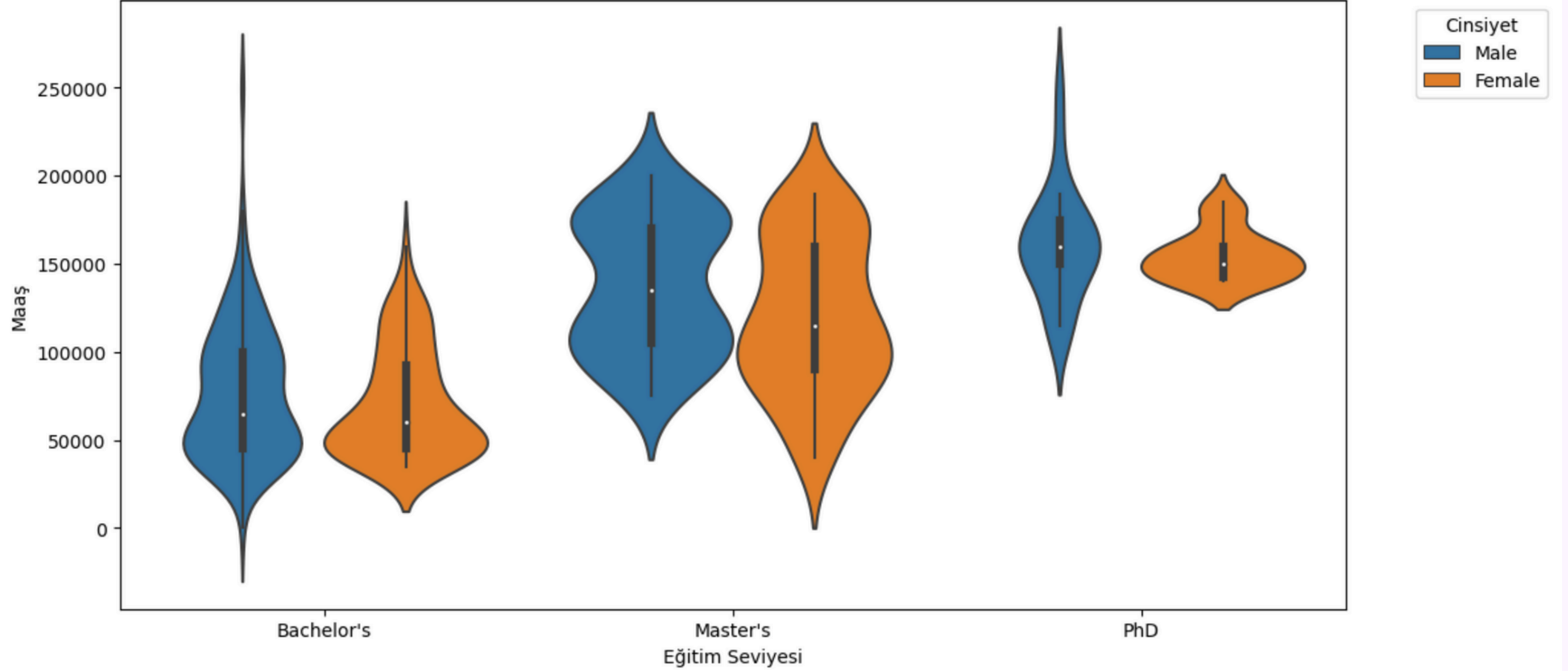


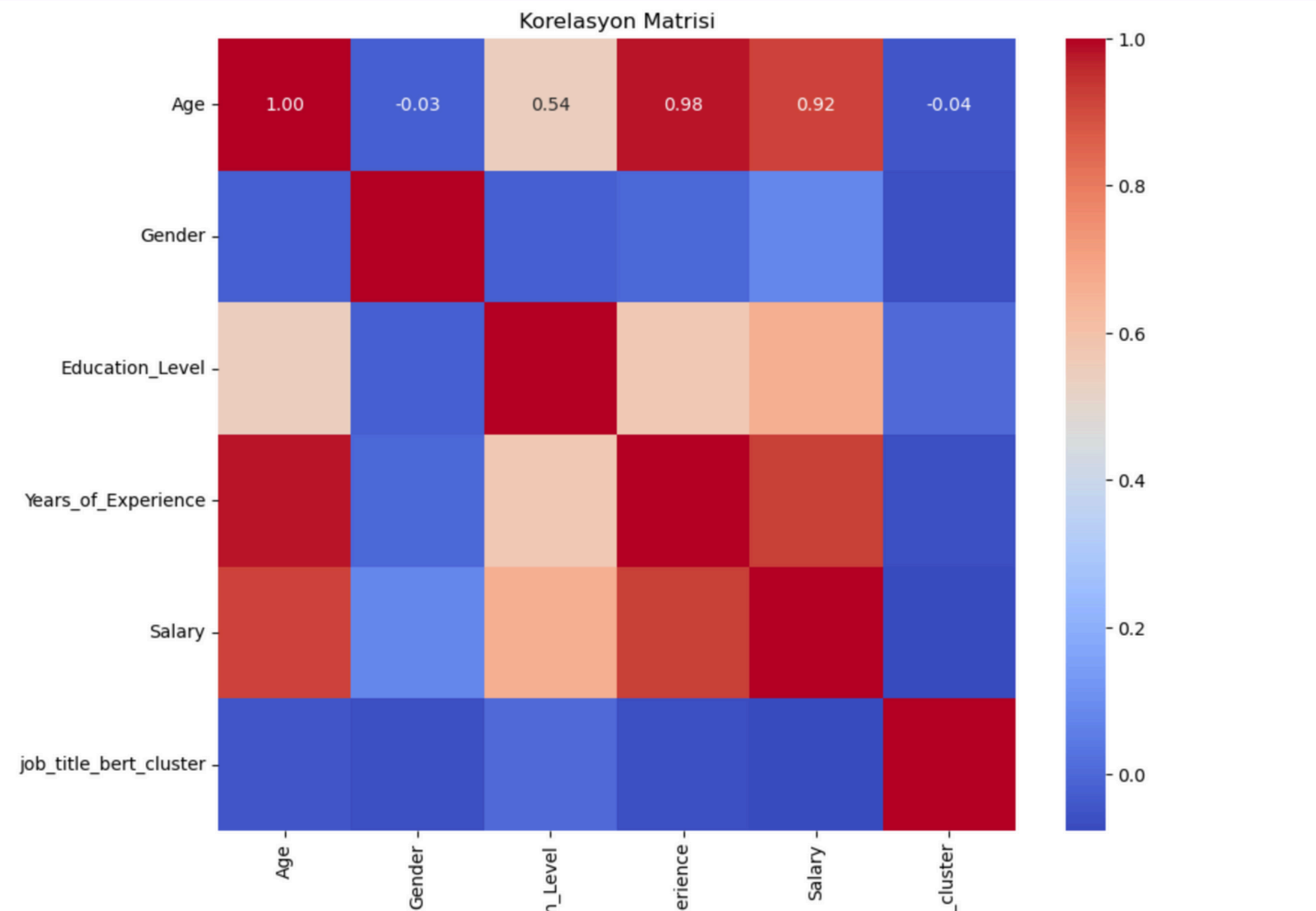


Yaş ve Deneyim Yılına Göre Maaş Analizi



Cinsiyet ve Eğitim Seviyesine Göre Maaş Analizi





Step
3

MODELLEME

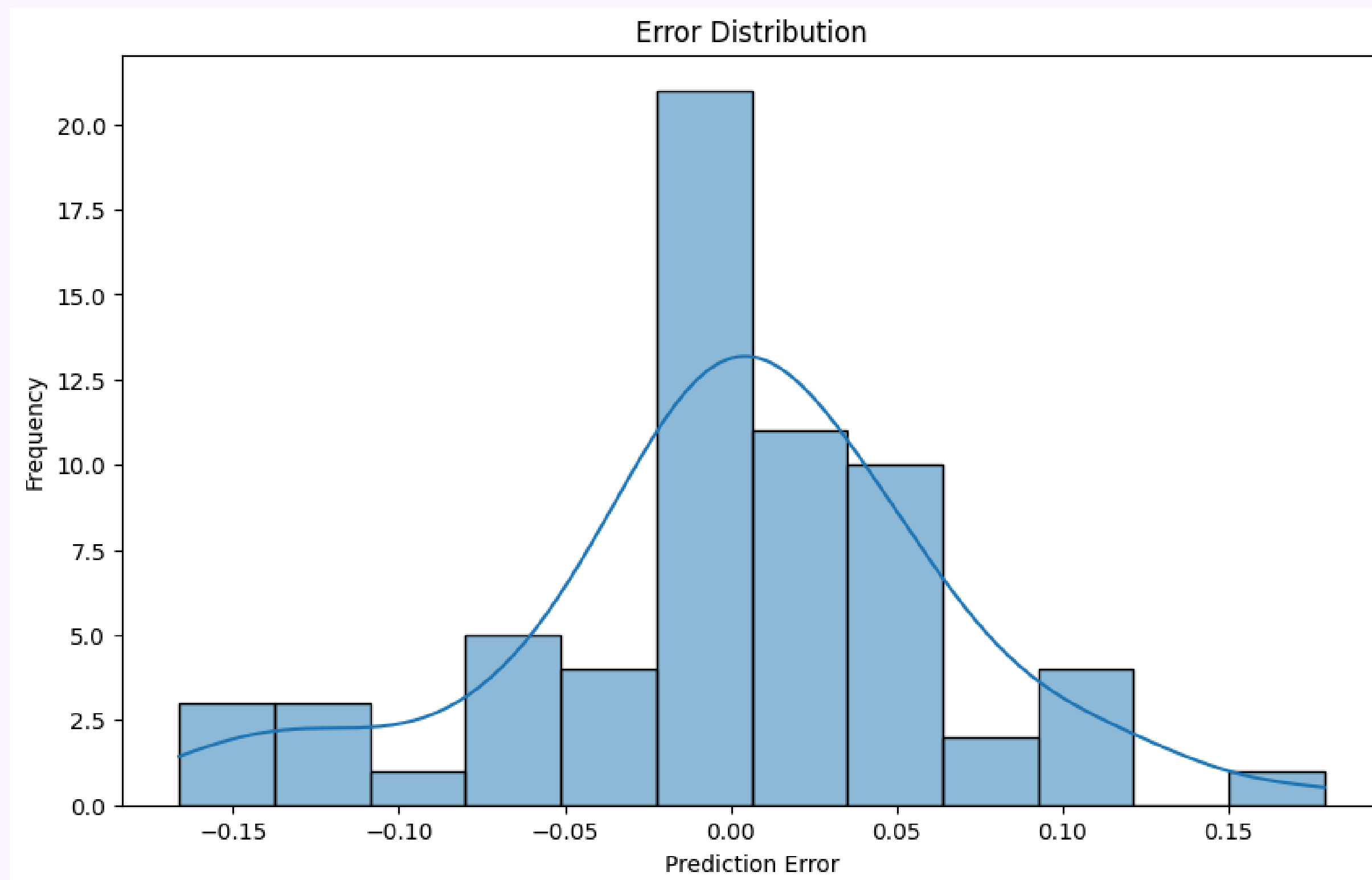
Model	Train MSE	Train R^2	Train Accuracy	Test MSE	Test R^2	Test Accuracy	CV Mean MSE	CV Mean R^2	Fit & Predict Time
Linear Regression	0,004616	0,883585	0,883585	0,00414	0,863468	0,863468	0,005502	0,854744	0,005534
Decision Tree	0,001168	0,970535	0,970535	0,005038	0,833851	0,833851	0,007652	0,798539	0,002068
Random Forest	0,001609	0,959426	0,959426	0,004585	0,848792	0,848792	0,006463	0,831584	0,090306
Support Vector Regre	0,006846	0,827334	0,827334	0,006872	0,77336	0,77336	0,007176	0,811174	0,005641
K-Nearest Neighbors	0,005136	0,870471	0,870471	0,010254	0,66184	0,66184	0,008842	0,768333	0,004515
XGBoost	0,00118	0,970235	0,970235	0,004521	0,850895	0,850895	0,007305	0,80801	0,076865

LabelEncoder

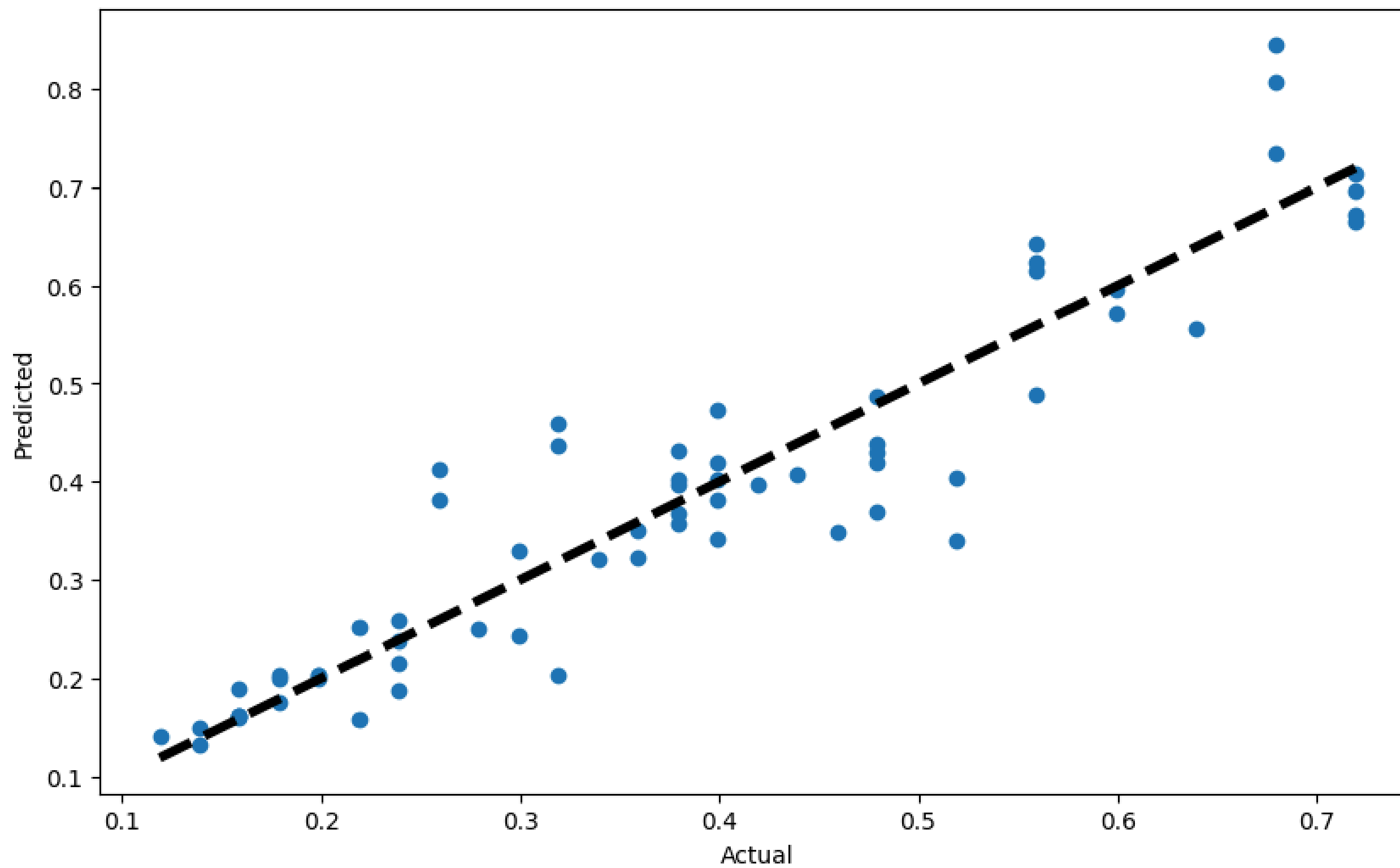
LinearRegression()

MinMaxScaler

86,34



Actual vs Predicted



Step 4

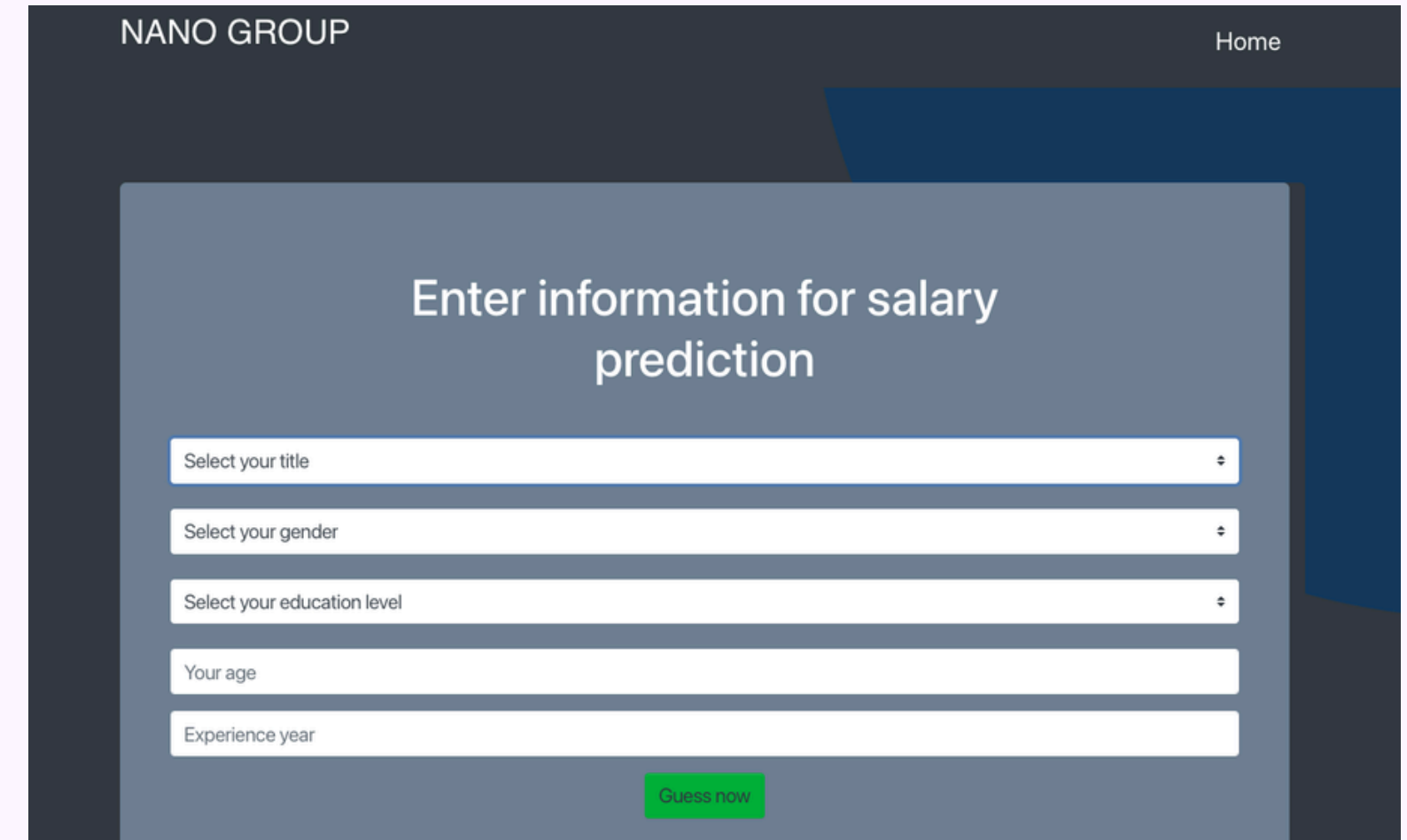
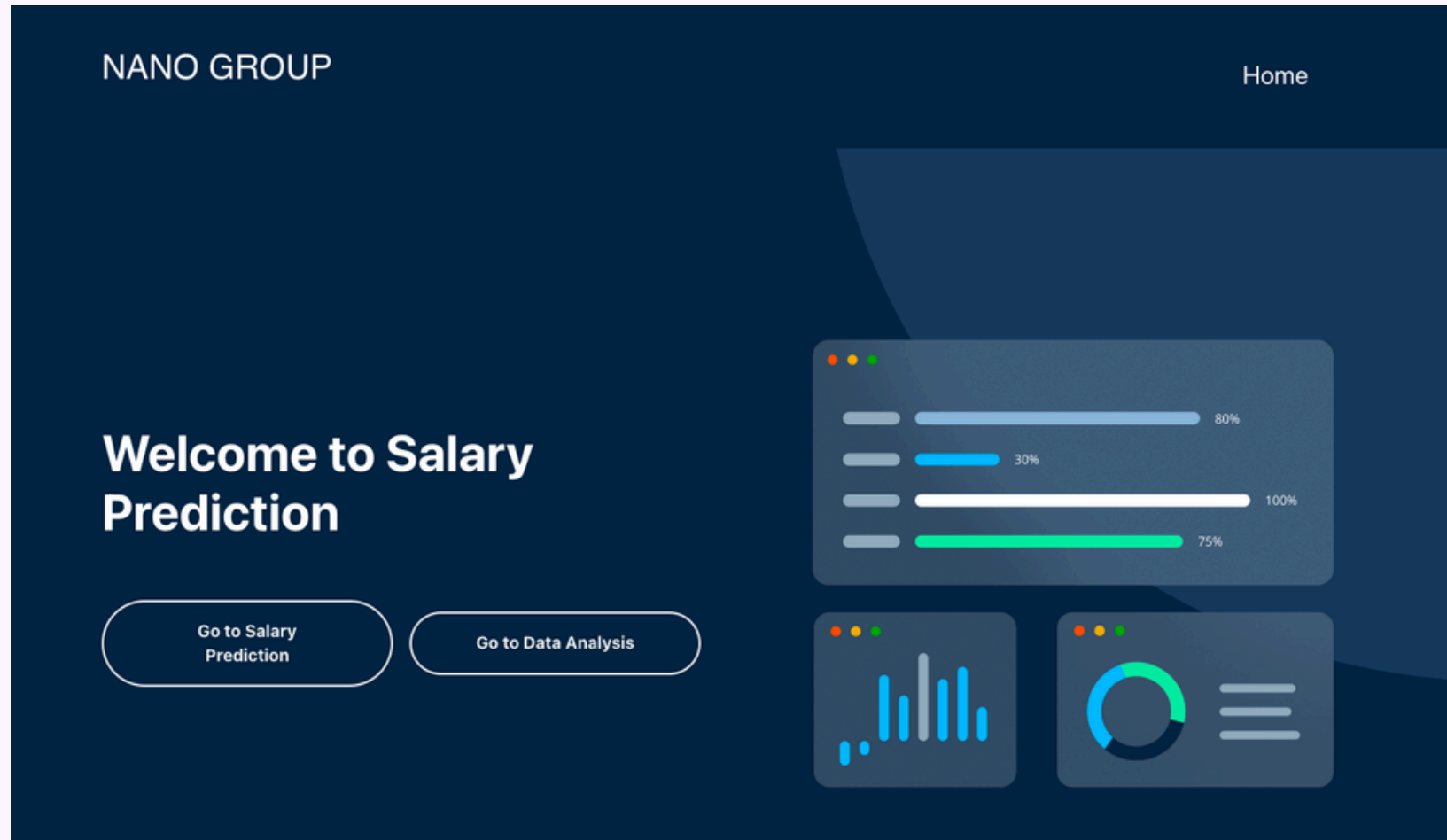
WEB ENTEGRASYONU

Bu proje, Flask kullanarak geliştirilmiş bir web uygulamasıdır.

Uygulama, kullanıcıların belirli bilgiler girerek maaş tahmini yapabilmelerini sağlar.

Kullanıcıdan alınan bilgiler, farklı makine öğrenmesi modelleri kullanılarak işlenir ve en iyi performansı gösteren model ile maaş tahmini yapılır.

PROJEYE GENEL BAKIŞ





DİNLEDİĞİNİZ
İÇİN TEŞEKKÜR
EDERİZ!