

Ulusal Sağlık ve Beslenme Sağlık Araştırması anketi değerleri ile

Veri Tahmini

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İncelenen makaleler ve kullandıkları algoritmalar

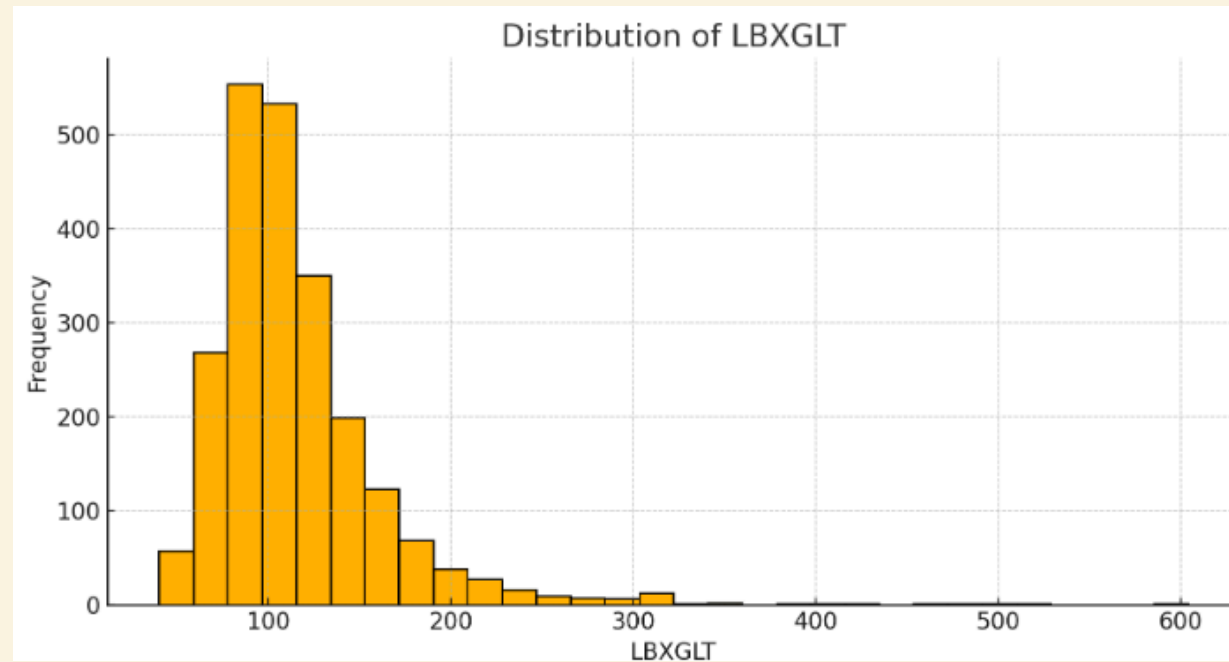
- HCNN-KNN Model Enhances Age Estimation Accuracy in Orthopantomography -----> HCNN-KNN Modeli
- Water quality prediction based on Naive Bayes algorithm -----> Naive Bayes
- Effective Heart Disease Prediction Using Machine Learning Techniques -----> Karar Ağacı
K-nearest Neighbor
- Crime Rate Prediction Using Naive Bayes and KNN Algorithm -----> K-nearest Neighbor
Naive Bayes
- Lung Cancer Risk Prediction with Machine Learning Models -----> Naive Bayes
Destek Vektör Makineleri

Aşağıdaki özellikler, sırasıyla kişinin bilgilerini temsil eder.

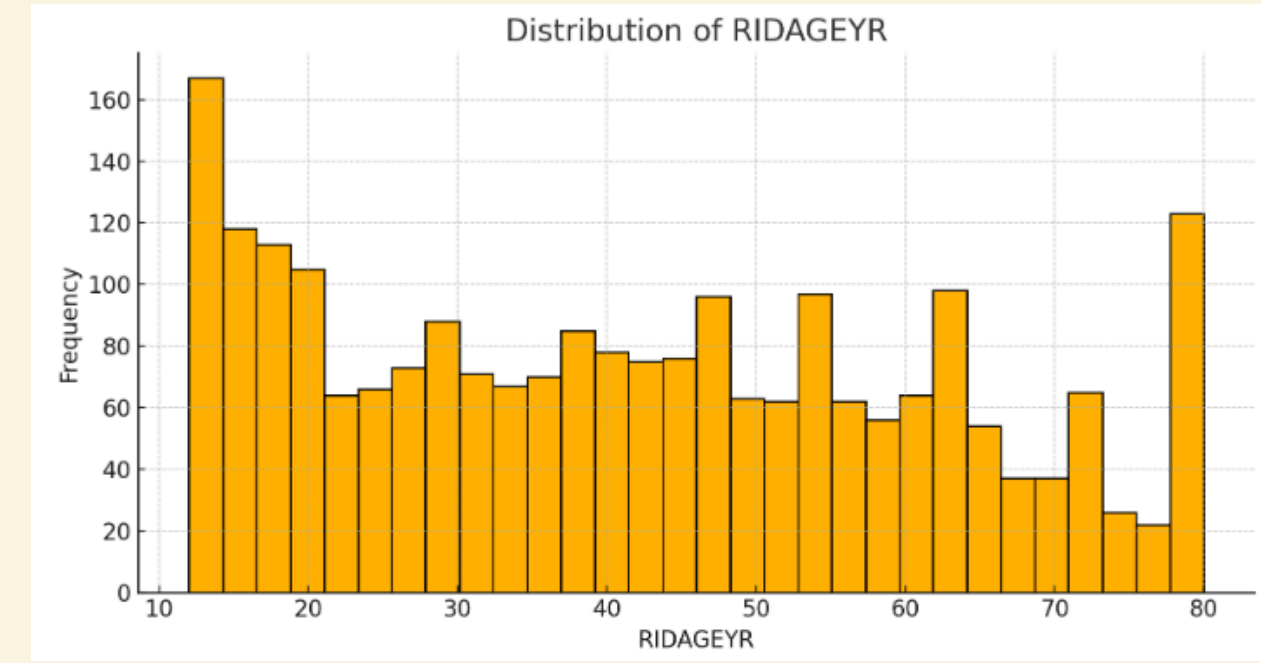
Yaş	Cinsiyet	Fiziksel aktivite düzeti	Vücut kitle endeksi	Kandaki glikoz seviyesi	Diyabet durumu	Glukoz toleransı testi	Kandaki insülin seviyesi
RIDAGEYR	RIAGENDR	PAQ605	BMXBMI	LBXGLU	DIQ010	LBXGLT	LBXIN
12.0	2.0	2.0	15.7	91.0	2.0	94.0	5.01
37.0	2.0	2.0	27.9	94.0	3.0	83.0	14.8
62.0	1.0	2.0	33.8	101.0	2.0	164.0	9.04
15.0	1.0	1.0	41.0	95.0	2.0	113.0	77.27
68.0	1.0	2.0	33.4	117.0	2.0	173.0	40.62
54.0	2.0	2.0	33.4	100.0	2.0	106.0	13.32
18.0	1.0	2.0	22.2	97.0	2.0	89.0	7.71
36.0	2.0	1.0	24.6	103.0	2.0	113.0	8.55
53.0	2.0	2.0	32.4	111.0	1.0	252.0	8.37

Belirtilen dağılımlar,
tahminlerde ağırlıkla
kullanılacak grafiklerdir.

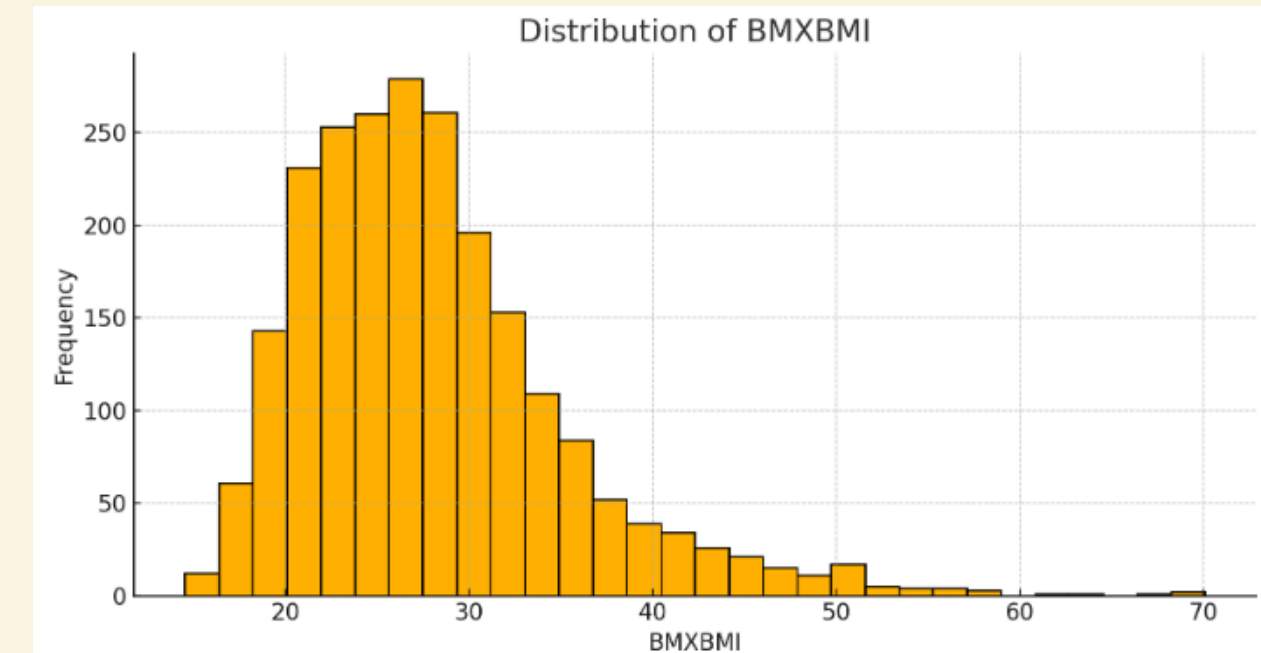
- Glukoz toleransı testi seviyesi



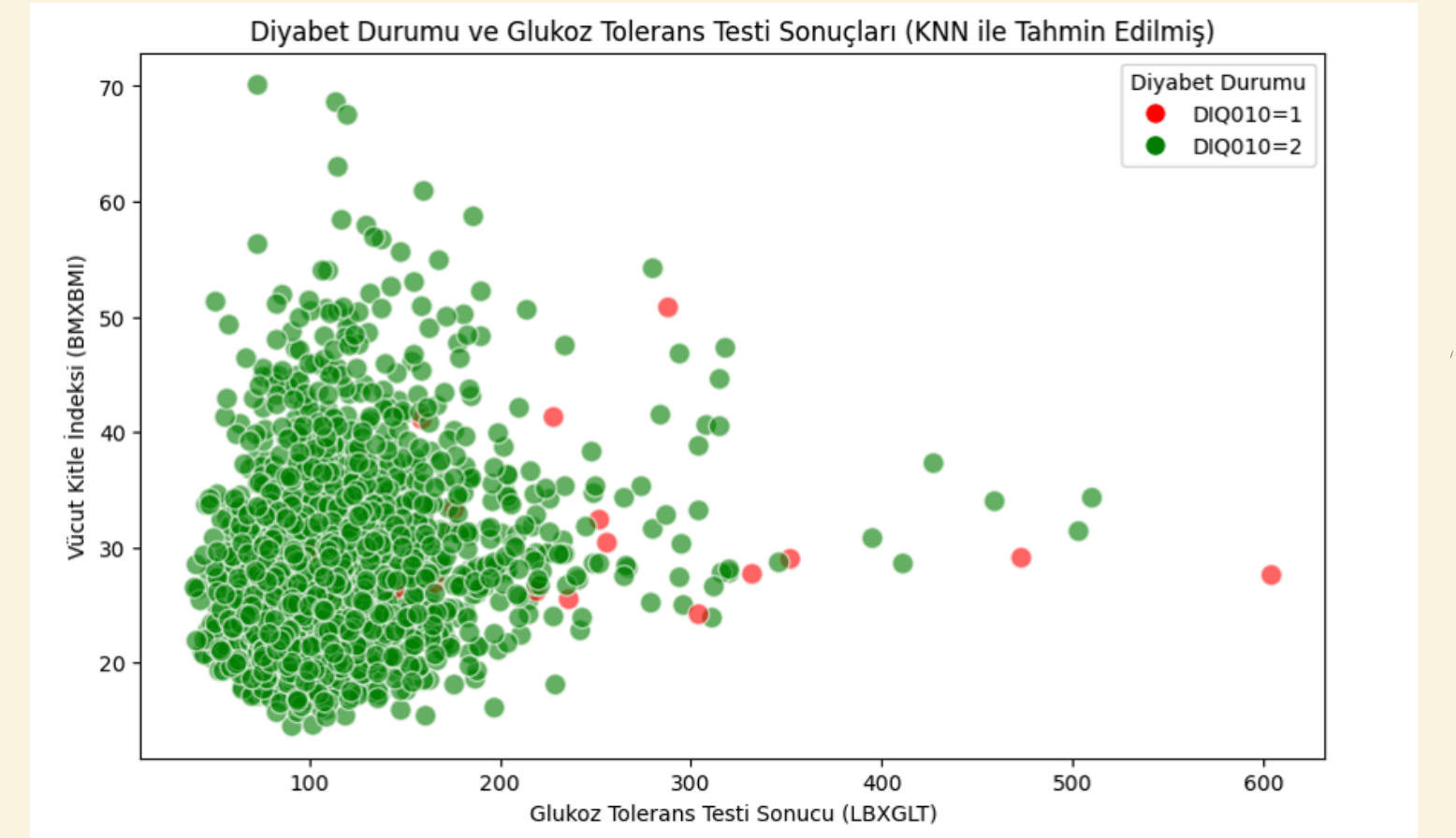
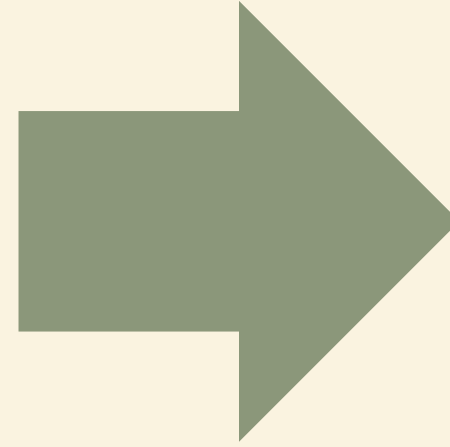
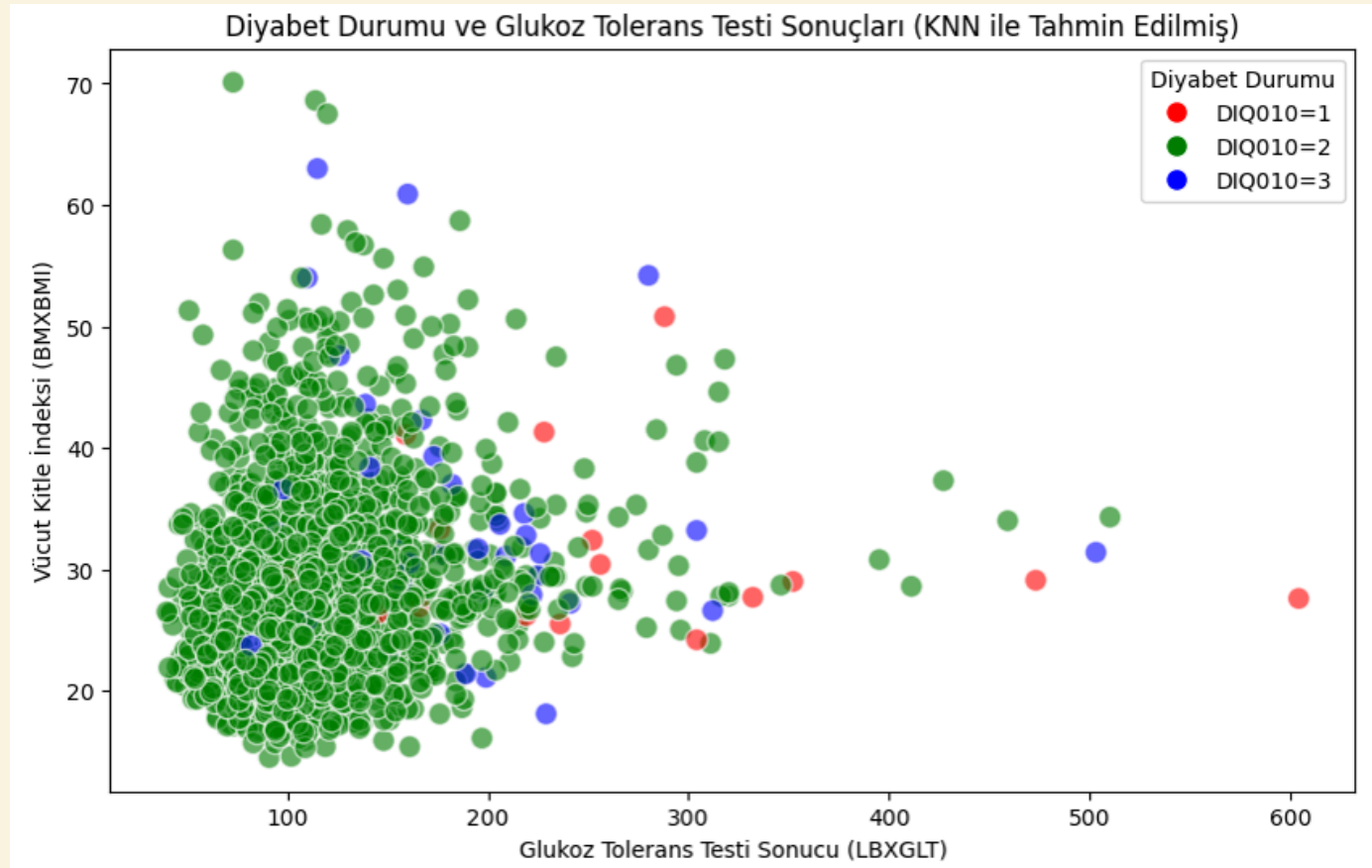
- Yaş dağılımı



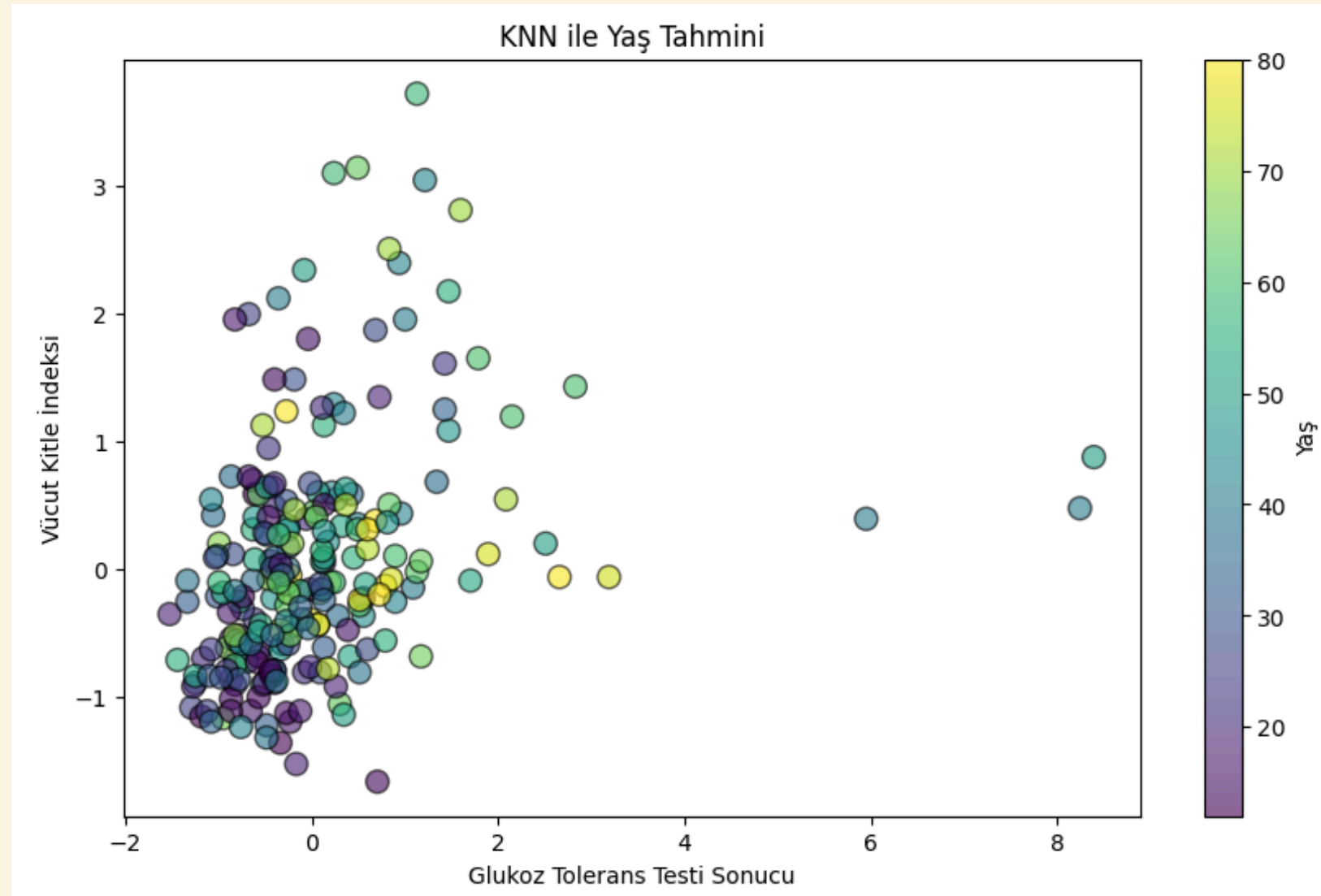
- Vücut kitle endeksi dağılımı



Veri önişleme



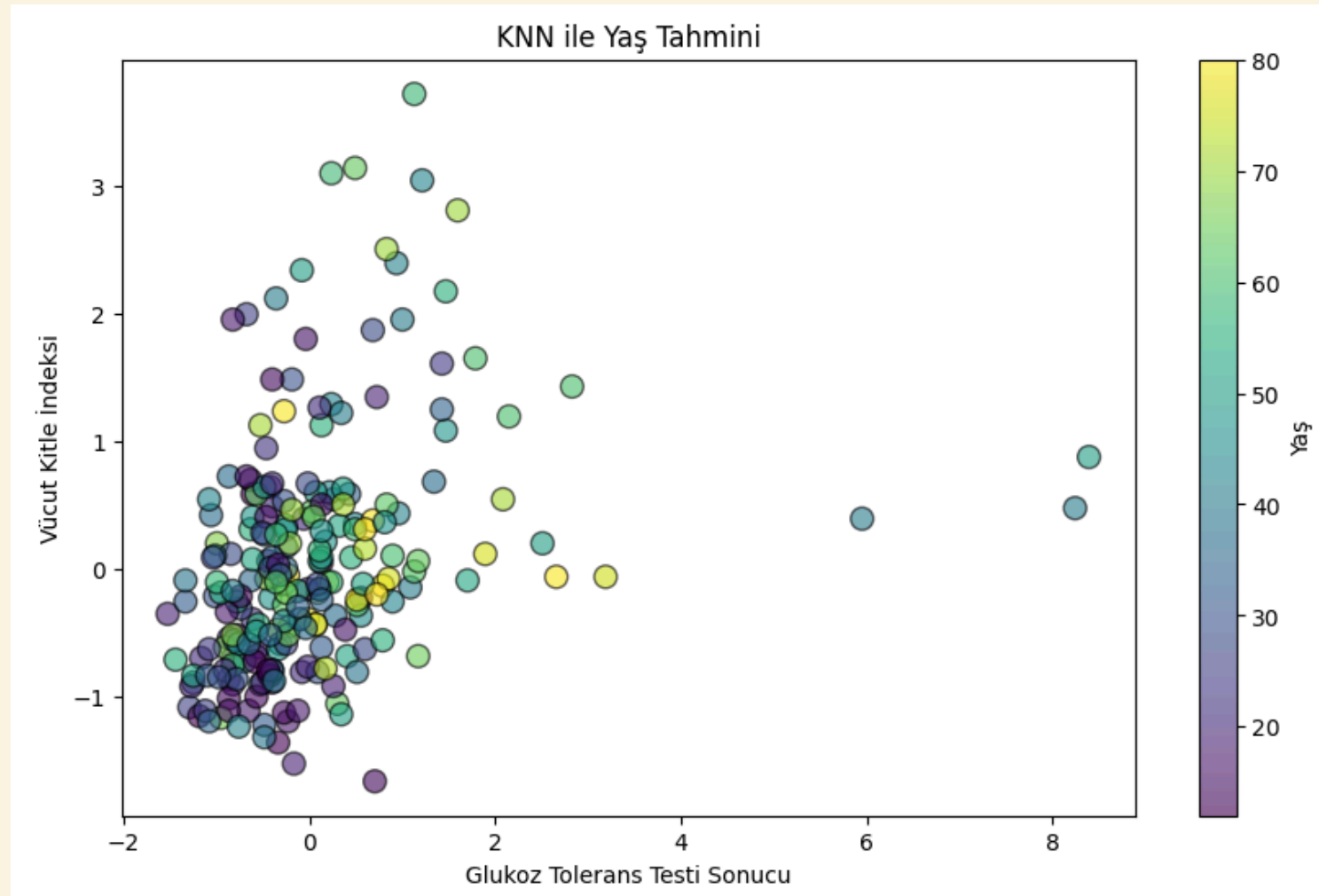
KNN kullanarak yař tahmini



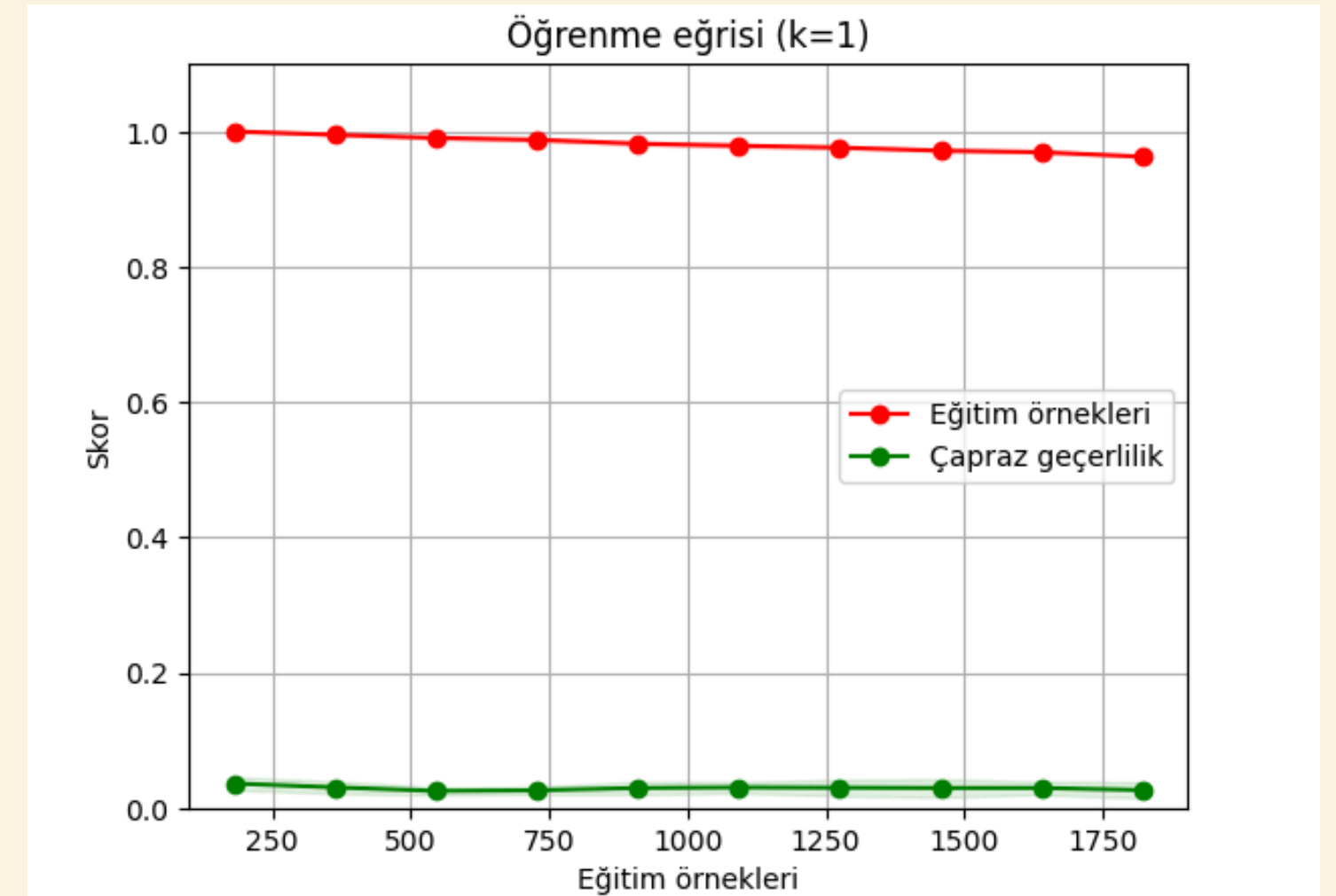
- Glukoz tolerans testi ve vücut kitle endeksi verileriyle yař tahmini

KNN algoritmasında k değeri nin önemi

K=5



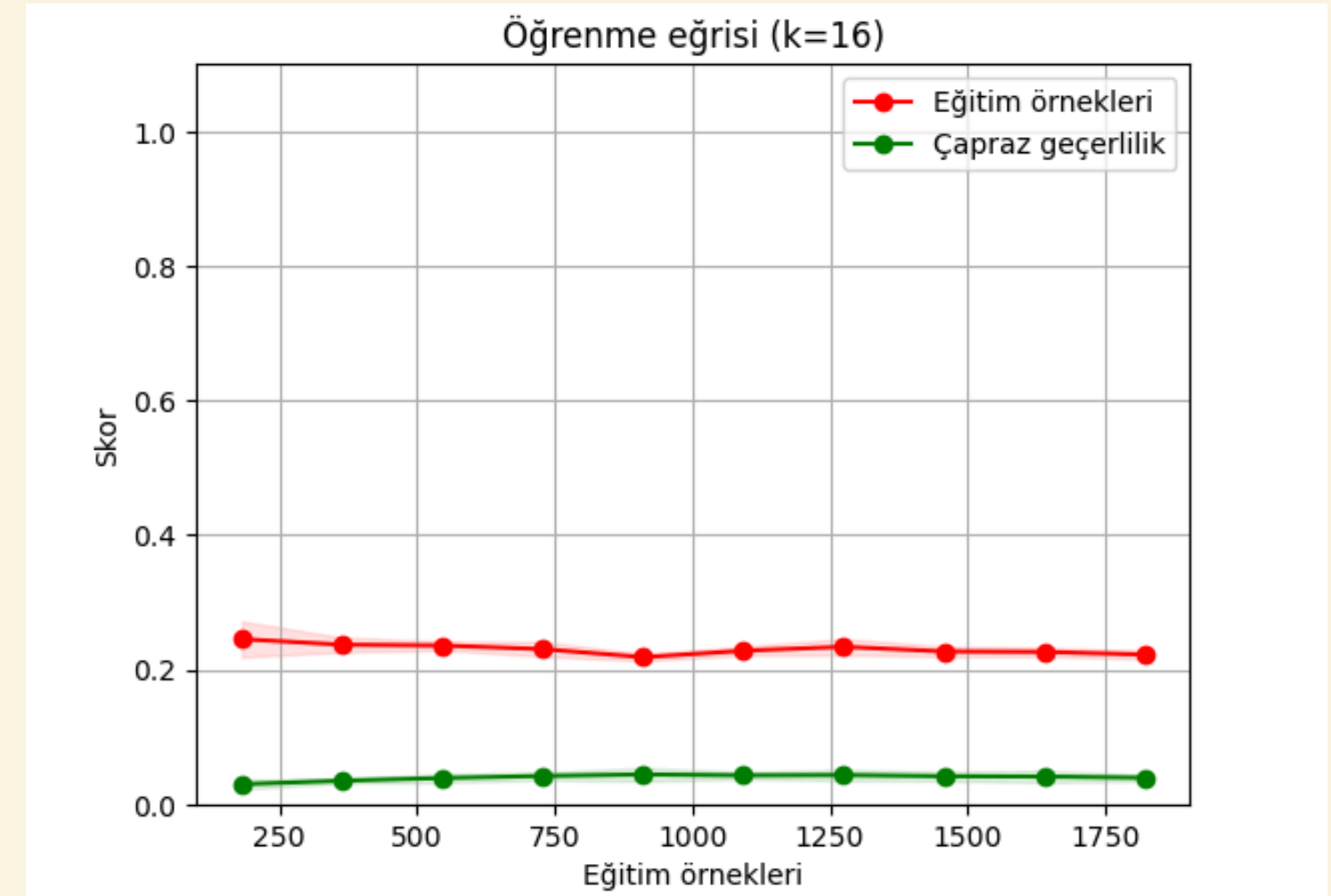
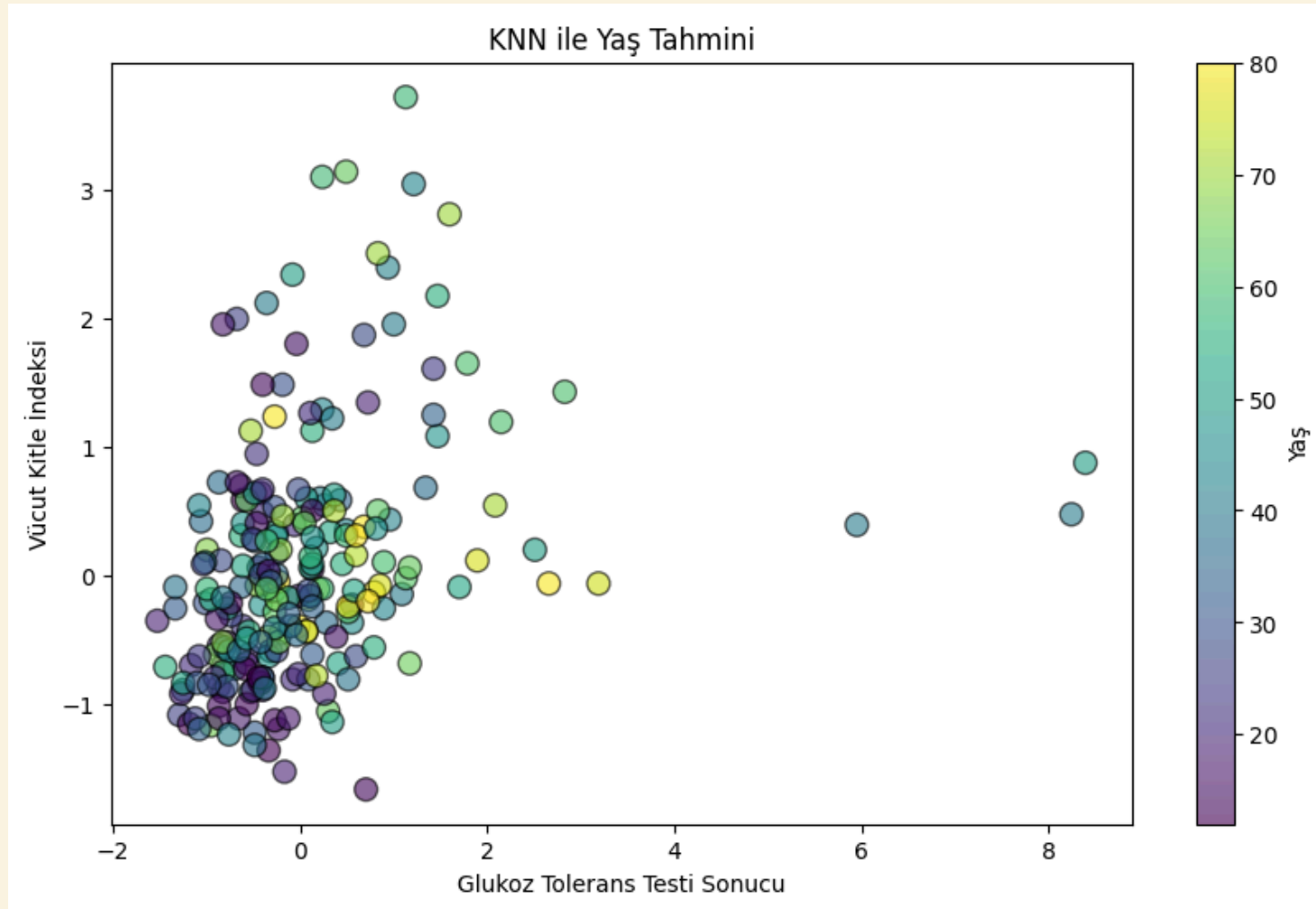
Doğruluk oranı: 95.26



KNN algoritmasında k değeriinin önemi

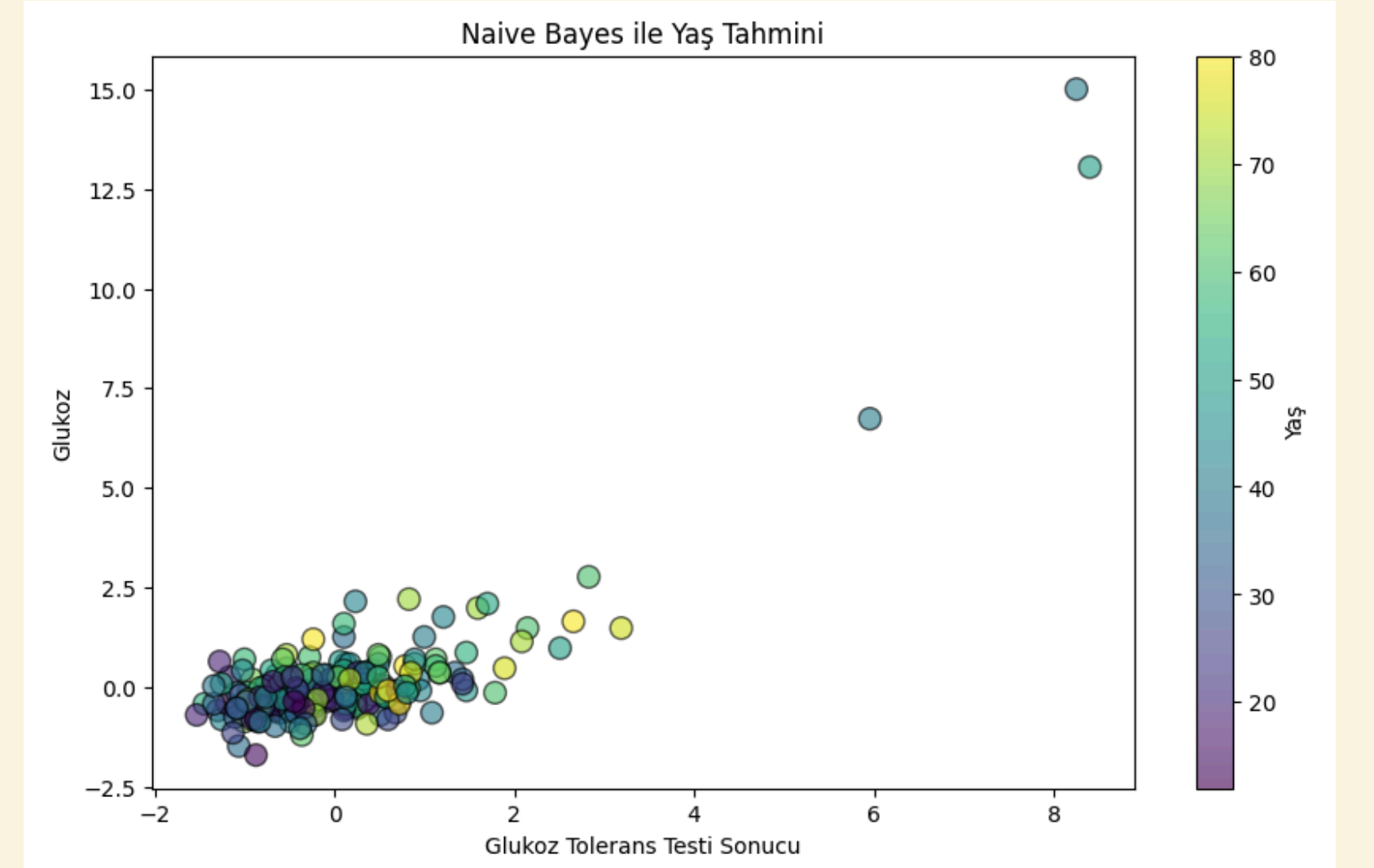
K=16

Doğruluk oranı: 17.16

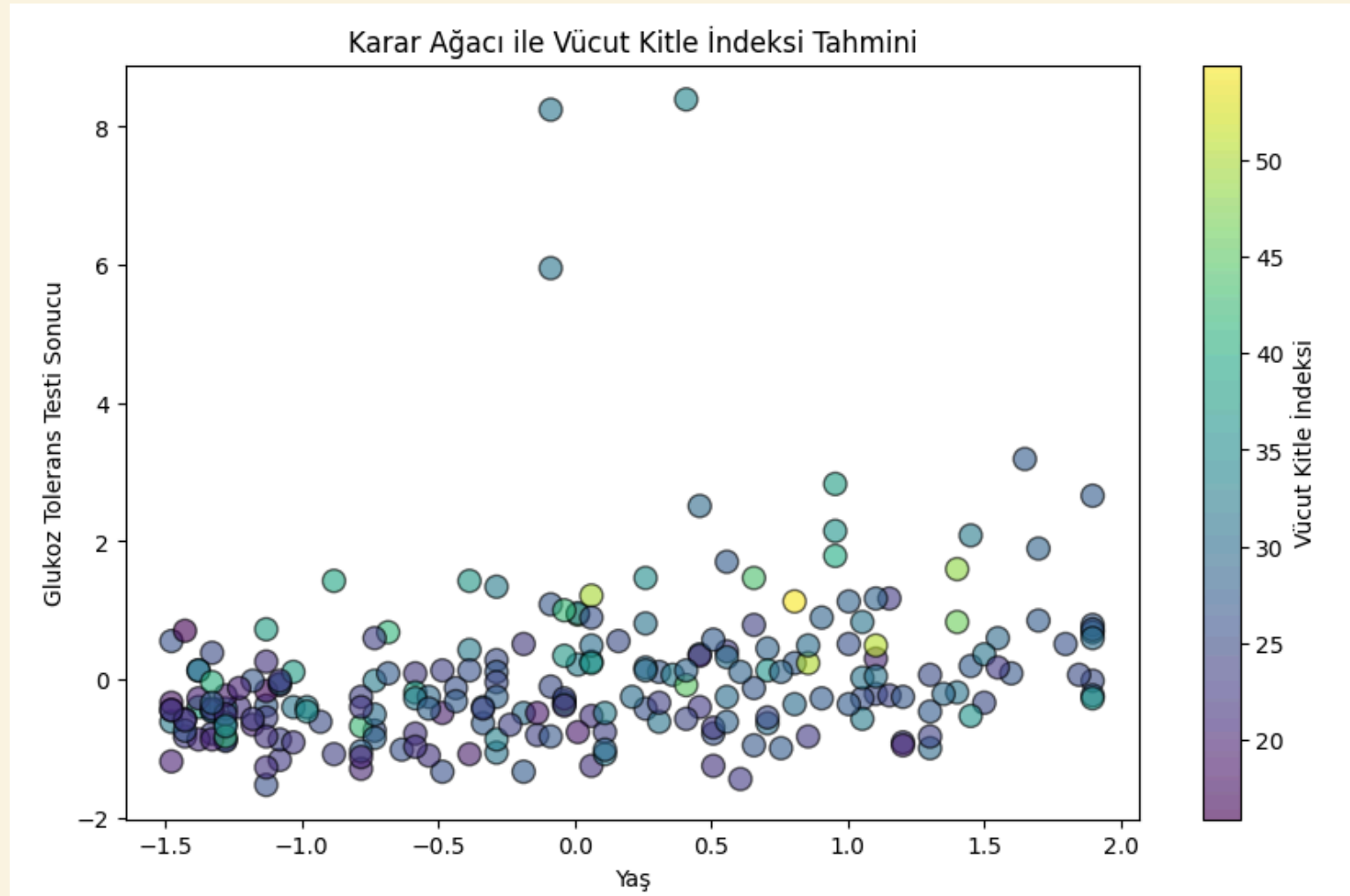


Naive Bayes kullanarak yař tahmini

- Kandaki glukoz deęeri ve glukoz tolerans testi verileriyle yař tahmini
- Modelin doęruluk oranı: 44.88%



Karar ağacı kullanarak vücut kitle endeksi tahmini



- Yaş ve glukoz tolerans testi verileriyle vücut kitle endeksi tahmini
- Modelin doğruluk oranı: 94.04%

Veri analizinde kullanılan sistem

İşlemci: Intel Core i7-11800H

Grafik Kartı: NVIDIA GeForce RTX 3060

Bellek: 32 GB DDR4

Depolama: Samsung MZ-V7S1T0BW 970 EVO Plus SSD

İşletim Sistemi: Windows

Dinlediğiniz için
teşekkürler