



# MACHINE LEARNING MODEL: STROKE CLASSIFICATION

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# RAW DATA:

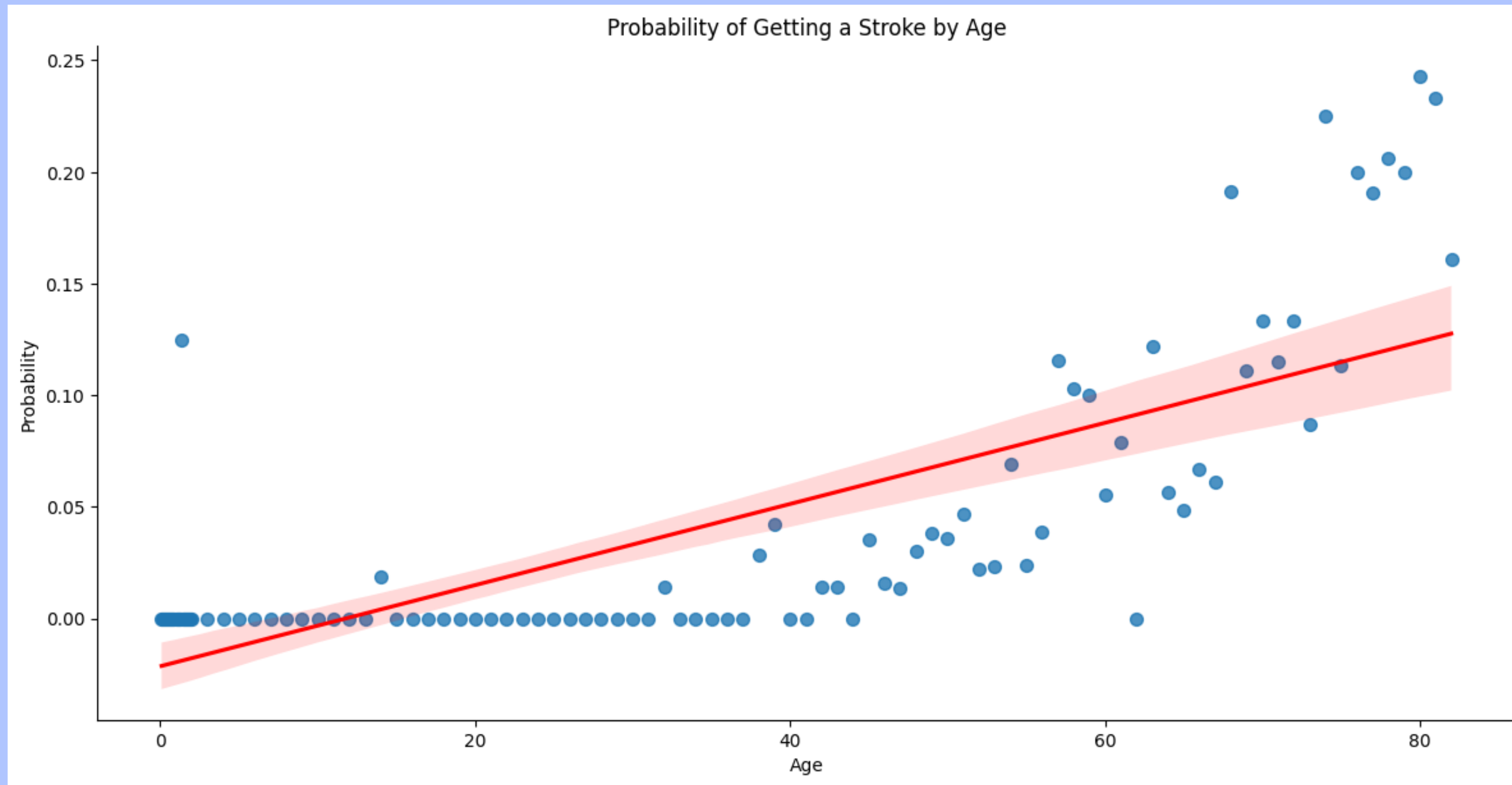


id	gender	age	hypertension	heart_disease	ever_married	work_type	Residence_type	avg_glucose_level	bmi	smoking_status	stroke
9046	Male	67.0	0	1	Yes	Private	Urban	228.69	36.6	formerly smoked	1
51676	Female	61.0	0	0	Yes	Self-employed	Rural	202.21	NaN	never smoked	1
31112	Male	80.0	0	1	Yes	Private	Rural	105.92	32.5	never smoked	1
60182	Female	49.0	0	0	Yes	Private	Urban	171.23	34.4	smokes	1
1665	Female	79.0	1	0	Yes	Self-employed	Rural	174.12	24.0	never smoked	1

# KEY FEATURES:

- BMI
- AGE
- GLUCOSE LEVELS

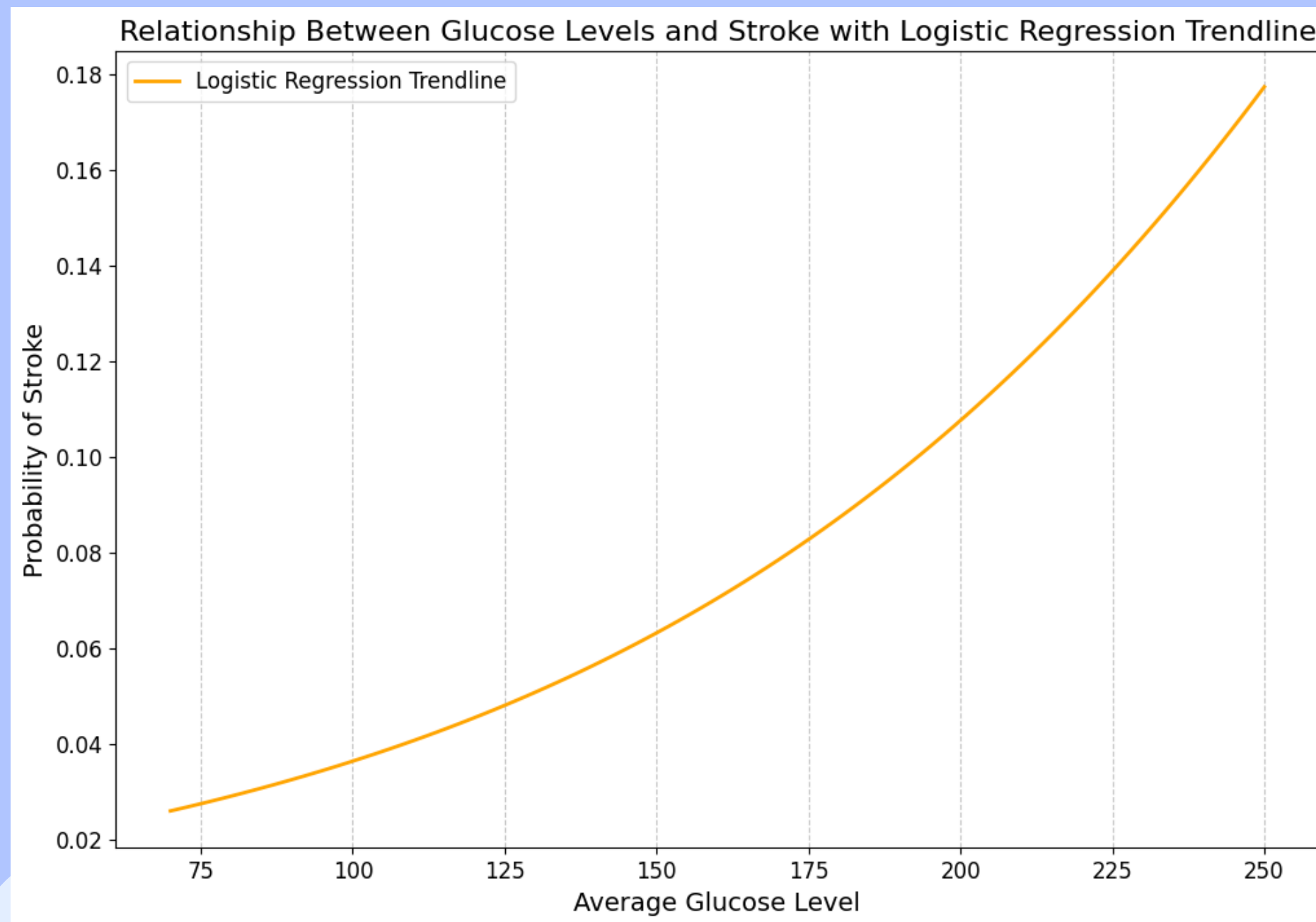
# AGE ANALYSIS



In summary, the trendline provides a visual representation of the relationship between age and stroke probability. It indicates a positive correlation, Note that the risk factor has a sharp increase at 40 years, with almost 0 probability of stroke below that age.



# GLUCOSE LEVEL ANALYSIS

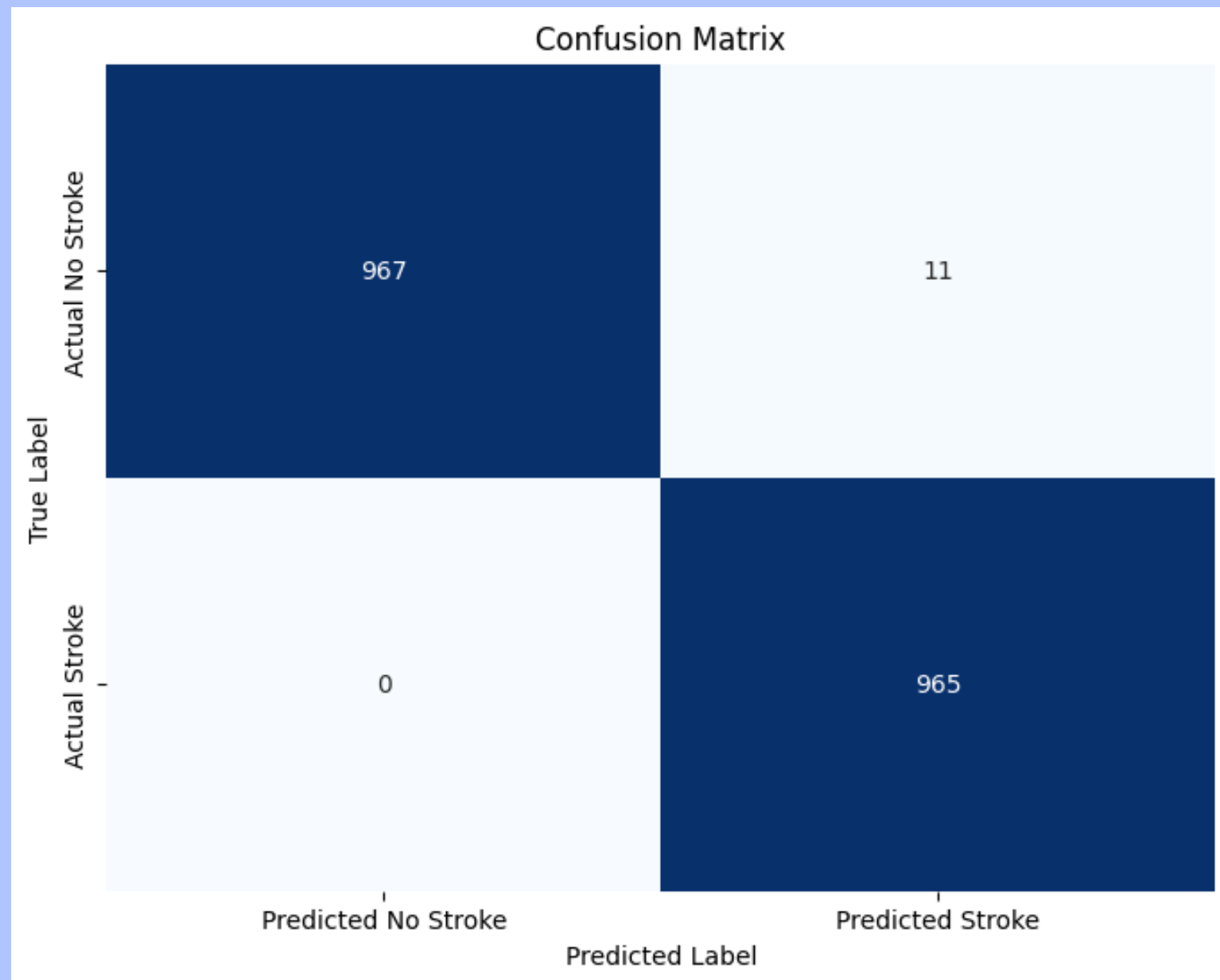


The trendline provides insights into the statistical association between glucose levels and stroke risk in your dataset. It's important to note that it represents a model's estimate based on available data and may not capture all factors influencing stroke risk.

Interpret the trendline as a probabilistic estimate, and individual health decisions should involve consultation with healthcare professionals.



# MODEL ACCURACY



## Key Metrics:

Precision: 98.87%

Among cases predicted as stroke, 98.87% were genuinely strokes.

Recall (Sensitivity): 100%

The model successfully identifies all actual strokes.

F1-Score: 99.43%

A balanced metric indicating high accuracy in predicting strokes.

