

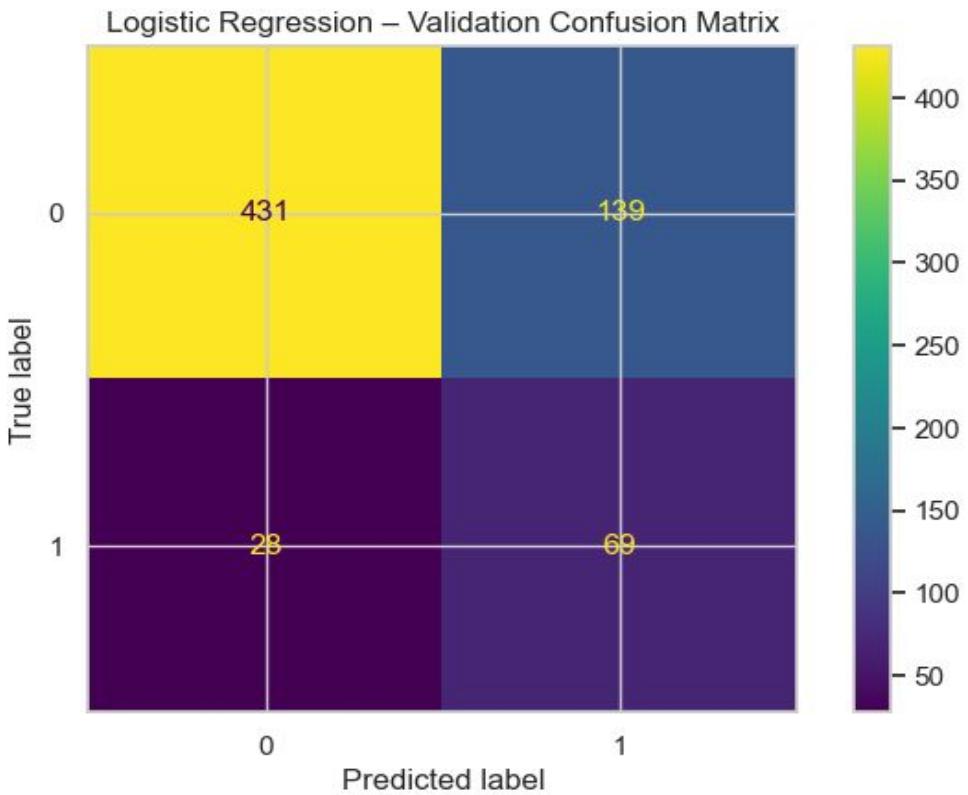
Predicting Customer Churn

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Business Understanding

- Churn impacts company revenue
- Need to understand why customers leave
- Hard to replace lost customers
- Goal is to predict churn risk

Model 1

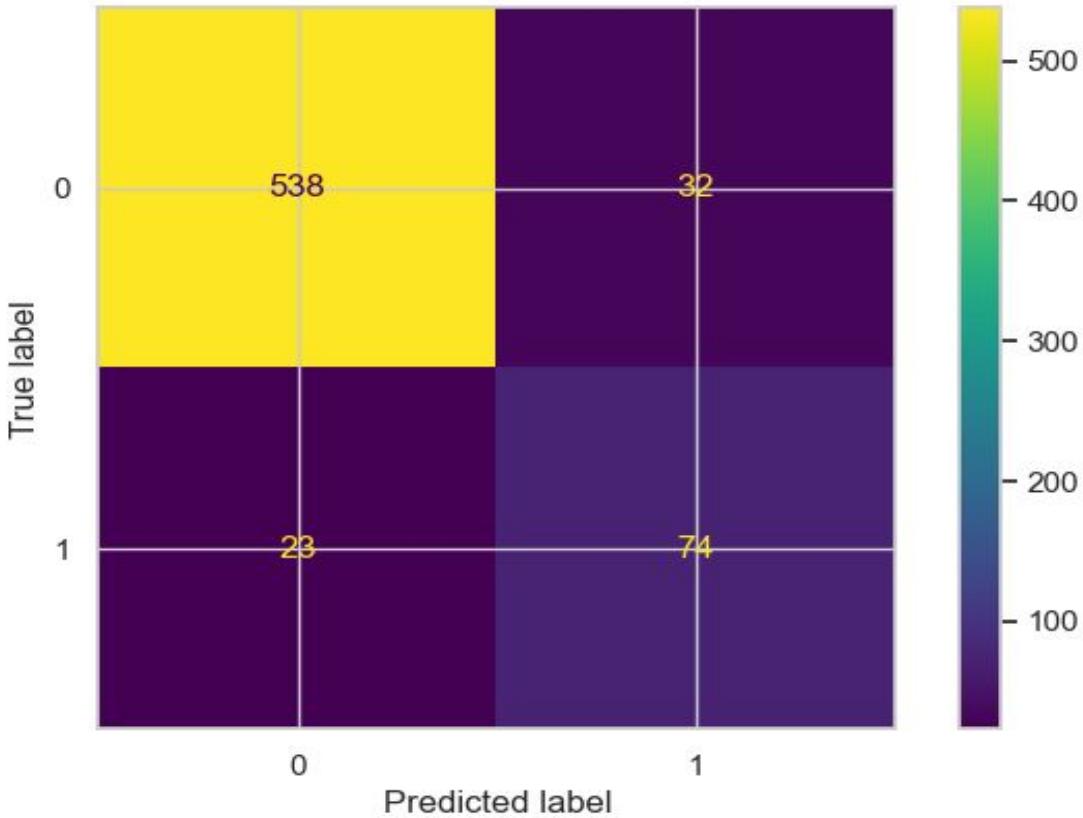


Data Understanding

- Basic model used to set a performance baseline
- Captures simple relationships in the data
- Misses many churners but identifies most non-churners

Model 2

Decision Tree – Validation Confusion Matrix

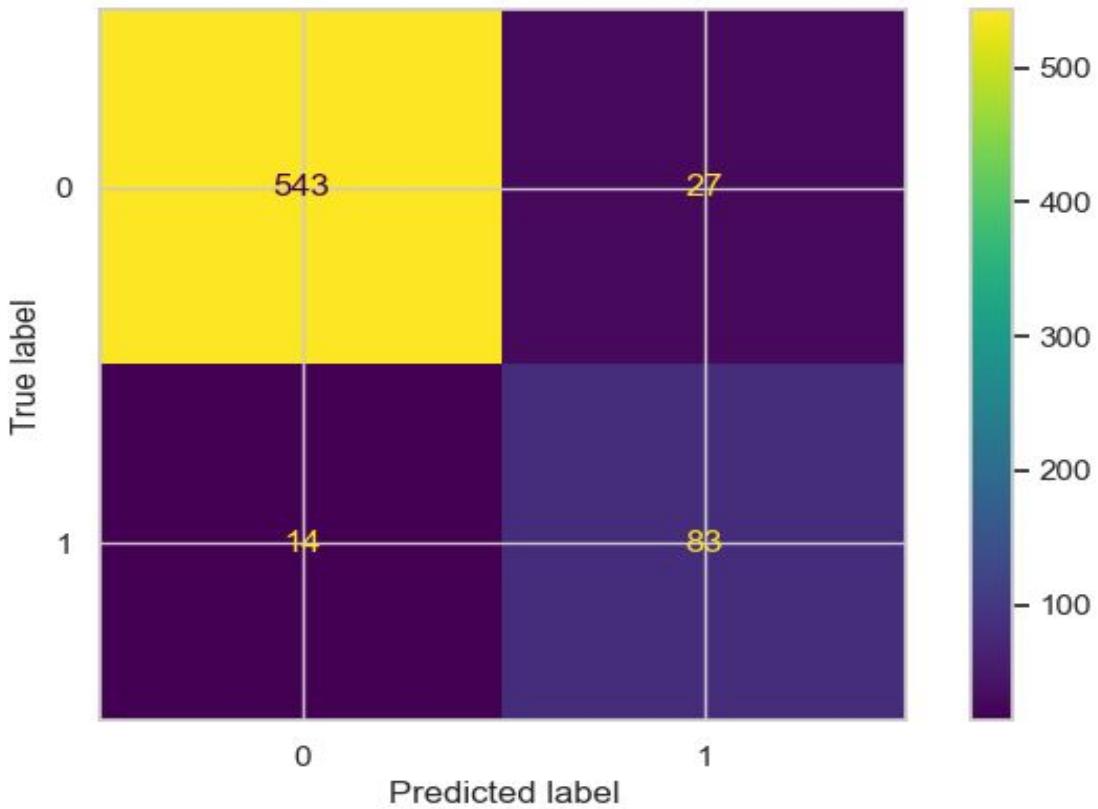


Data Understanding

- Learns more complex patterns than logistic regression
- Improves recall on true churners
- Gives clearer splits based on customer behavior

Final Model

Final Model – Validation Confusion Matrix



Evaluation

- tested on separate holdout set
- recall was main priority
- final model caught most churners
- kept false alarms low

Deployment

- Use model to flag high-risk customers
- Support retention, call center, and marketing teams
- Helps guide data-driven decisions
- retention outreach list
- feature importance to reduce wait times
- high-value churner targeting