LAGUNA STATE POLYTECHNIC UNIVERSITY

College of Business Administration and Accountancy

AI BOARD EXAM PREDICTION SYSTEM

Complete Training Report

Report Generated: December 06, 2025 at 03:07 PM
Department: Business Administration and Accountancy
Data Source: Anonymous Board Passer Records
Total Training Records: 6

Best Model: Lasso Regression
**Model Accuracy (R²):** 0.9997
Training Date: December 06, 2025
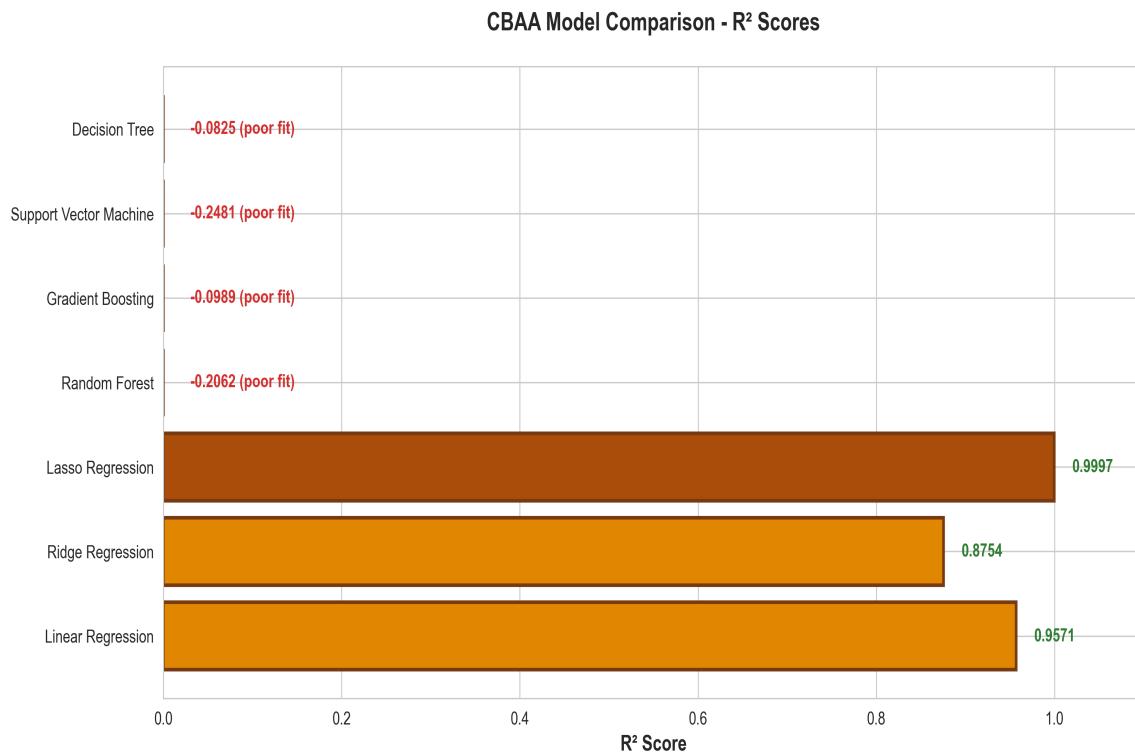
COMPLETE TRAINING DATASET

Exam Type	Year	Takers	Passers	Passing Rate
Certified Public Accountant Li	2021	2	2.0	100.00%
Certified Public Accountant Li	2022	3	0.0	0.00%
Certified Public Accountant Li	2023	15	4.0	26.67%
Certified Public Accountant Li	2023	11	3.0	27.27%
Certified Public Accountant Li	2024	30	7.0	23.33%
Certified Public Accountant Li	2024	18	2.0	11.11%
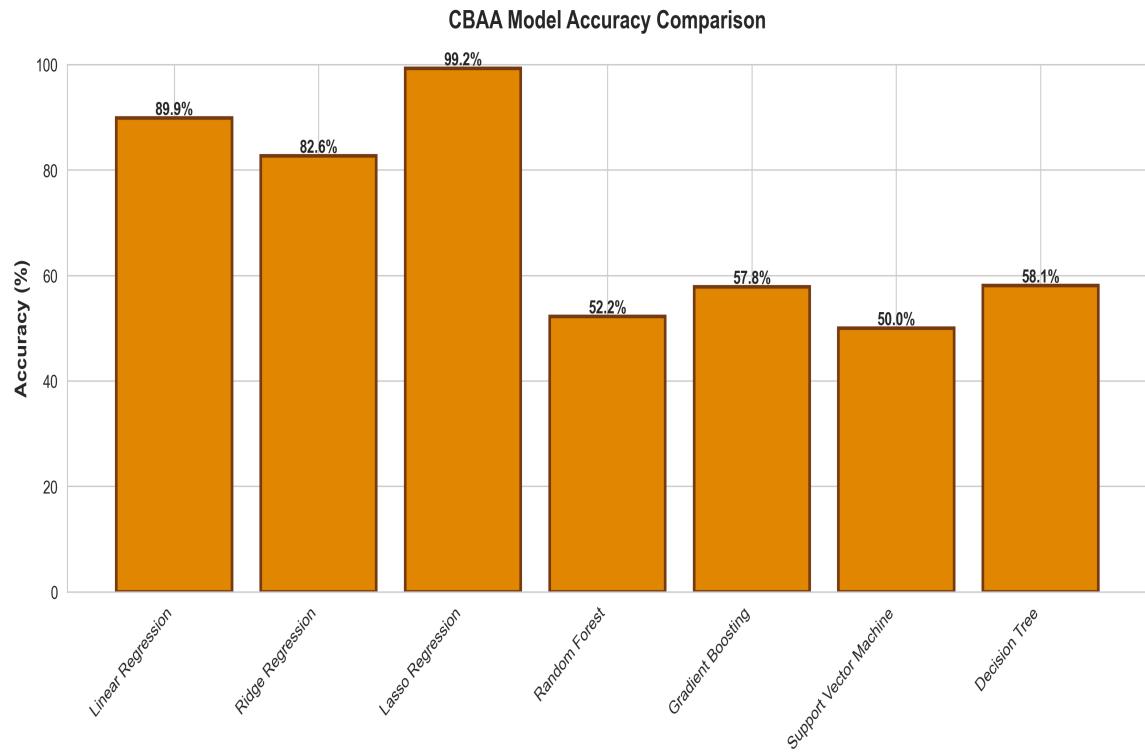
MODEL PERFORMANCE METRICS

Model	R² Score	MAE	Accuracy	Cross-Val
Linear Regression	0.9571	10.14%	89.86%	nan
Ridge Regression	0.8754	17.37%	82.63%	nan
Lasso Regression	0.9997	0.77%	99.23%	nan
Random Forest	-0.2062	47.80%	52.20%	nan
Gradient Boosting	-0.0989	42.20%	57.80%	nan
Support Vector Machine	-0.2481	50.00%	50.00%	nan
Decision Tree	-0.0825	41.92%	58.08%	nan

Model Comparison - R² Scores

CBAA Model Comparison - R² Scores

Model	R² Score
Decision Tree	-0.0825 (poor fit)
Support Vector Machine	-0.2481 (poor fit)
Gradient Boosting	-0.0989 (poor fit)
Random Forest	-0.2062 (poor fit)
Lasso Regression	0.9997
Ridge Regression	0.8754
Linear Regression	0.9571
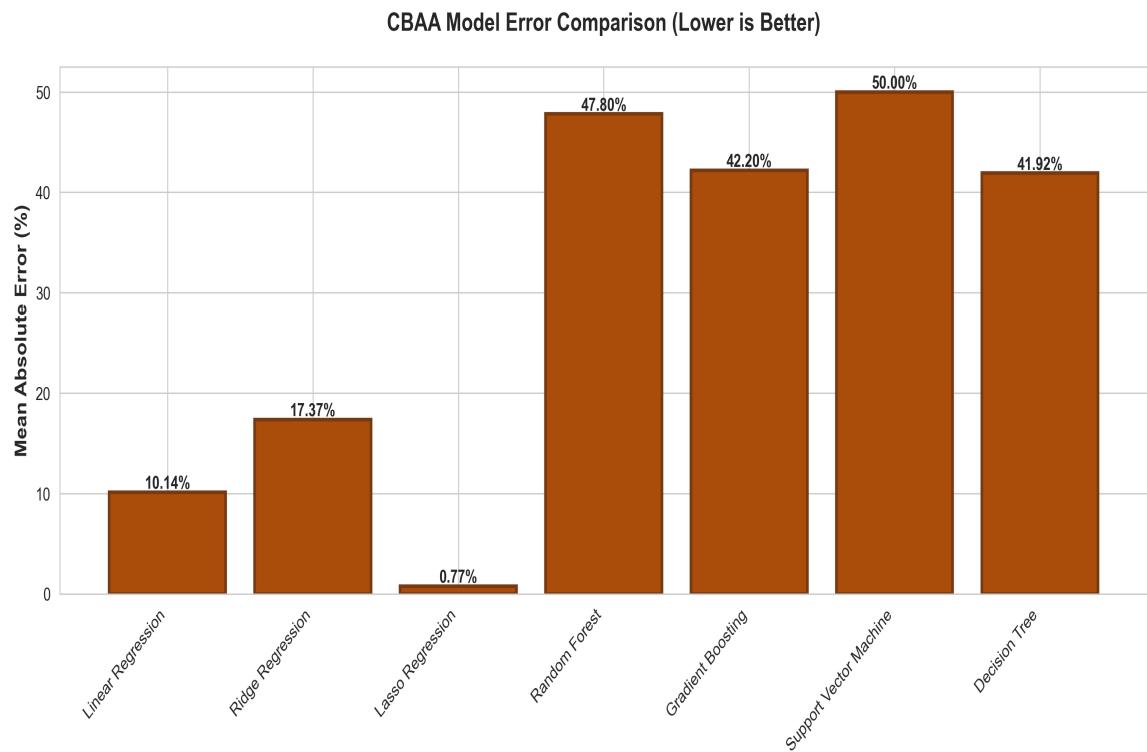
R² Score

Accuracy Comparison
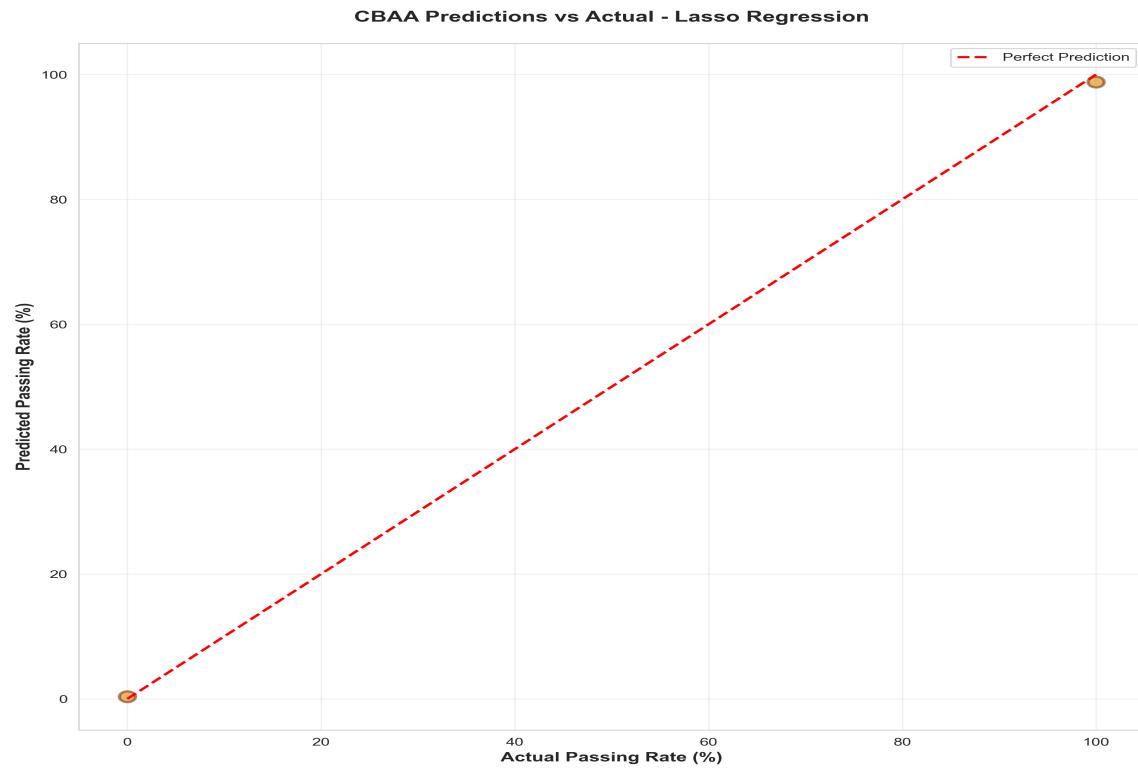
CBAA Model Accuracy Comparison

Error Comparison

CBAA Model Error Comparison (Lower is Better)

Mean Absolute Error (%)

Model	MAE
Linear Regression	10.14%
Ridge Regression	17.37%
Lasso Regression	0.77%
Random Forest	47.80%
Gradient Boosting	42.20%
Support Vector Machine	50.00%
Decision Tree	41.92%

Predictions vs Actual

CBAA Predictions vs Actual - Lasso Regression

Historical Trends

CBAA Historical Passing Rate Trends