import pandas as pd

import numpy as np

from statsmodels.formula.api import logit

# Load the dataset

data = pd.read\_csv("car\_insurance.csv")

# Initialize variables to store the best accuracy and the corresponding feature

best\_accuracy = 0

best\_feature = None

# Loop through each feature and fit a logistic regression model

for feature in data.columns[:-1]: # Exclude the target variable "outcome"

formula = f"outcome ~ {feature}"

model = logit(formula=formula, data=data).fit()

predictions = (model.predict(data[feature]) > 0.5).astype(int)

accuracy = np.mean(predictions == data["outcome"])

if accuracy > best\_accuracy:

best\_accuracy = accuracy

best\_feature = feature

# Create a DataFrame to store the best performing feature and its accuracy

best\_feature\_df = pd.DataFrame({"best\_feature": [best\_feature], "best\_accuracy": [best\_accuracy]})

# Print the best performing feature and its accuracy

print(best\_feature\_df)