**Medical Insurance charge prediction Using Machine Learning Model**

**Objective:**

* Which features are the strongest for insurance charge Prediction
* Which model can predict better if a new dataset of similar kind is provided.

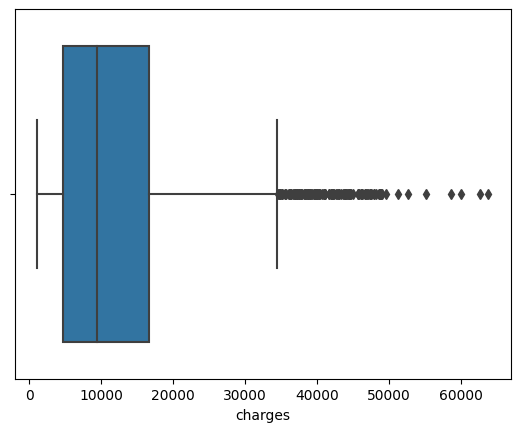
**Target Variable:**

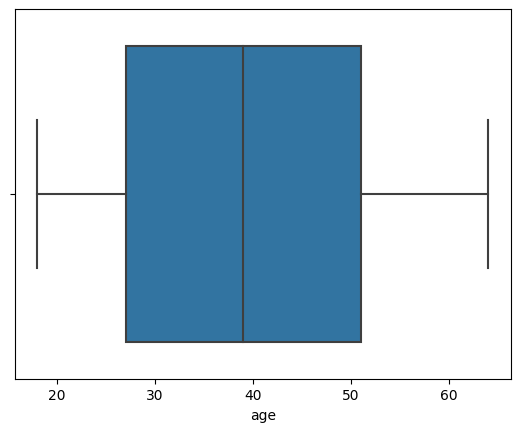
Charges

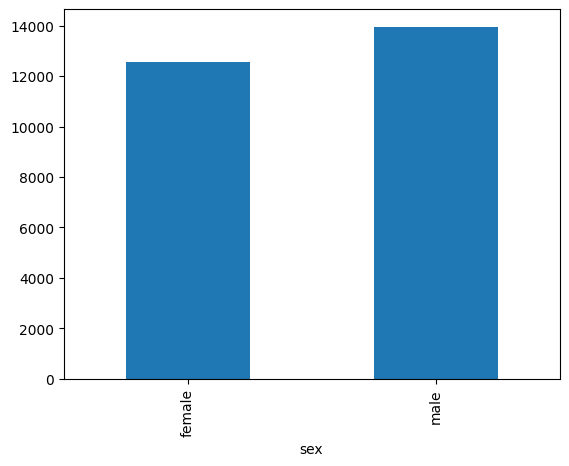
**Predictor Variables:**

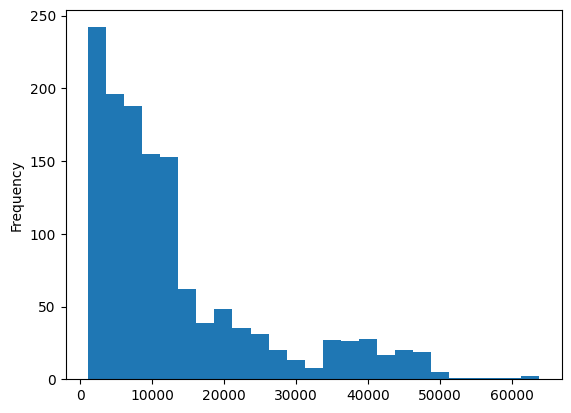
* Age
* Sex
* Bmi
* Children
* Smoker
* Region

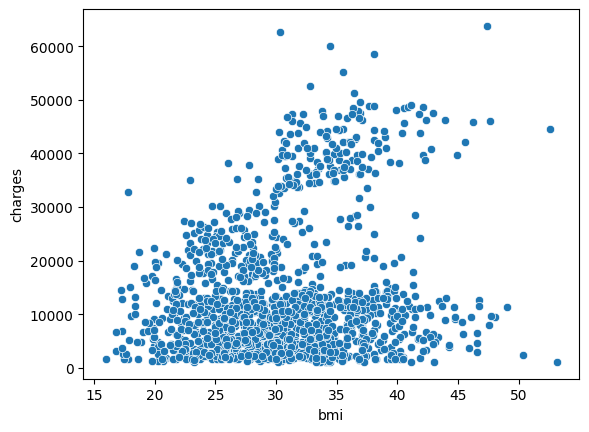
**Exploratory Data ANALYSIS:**







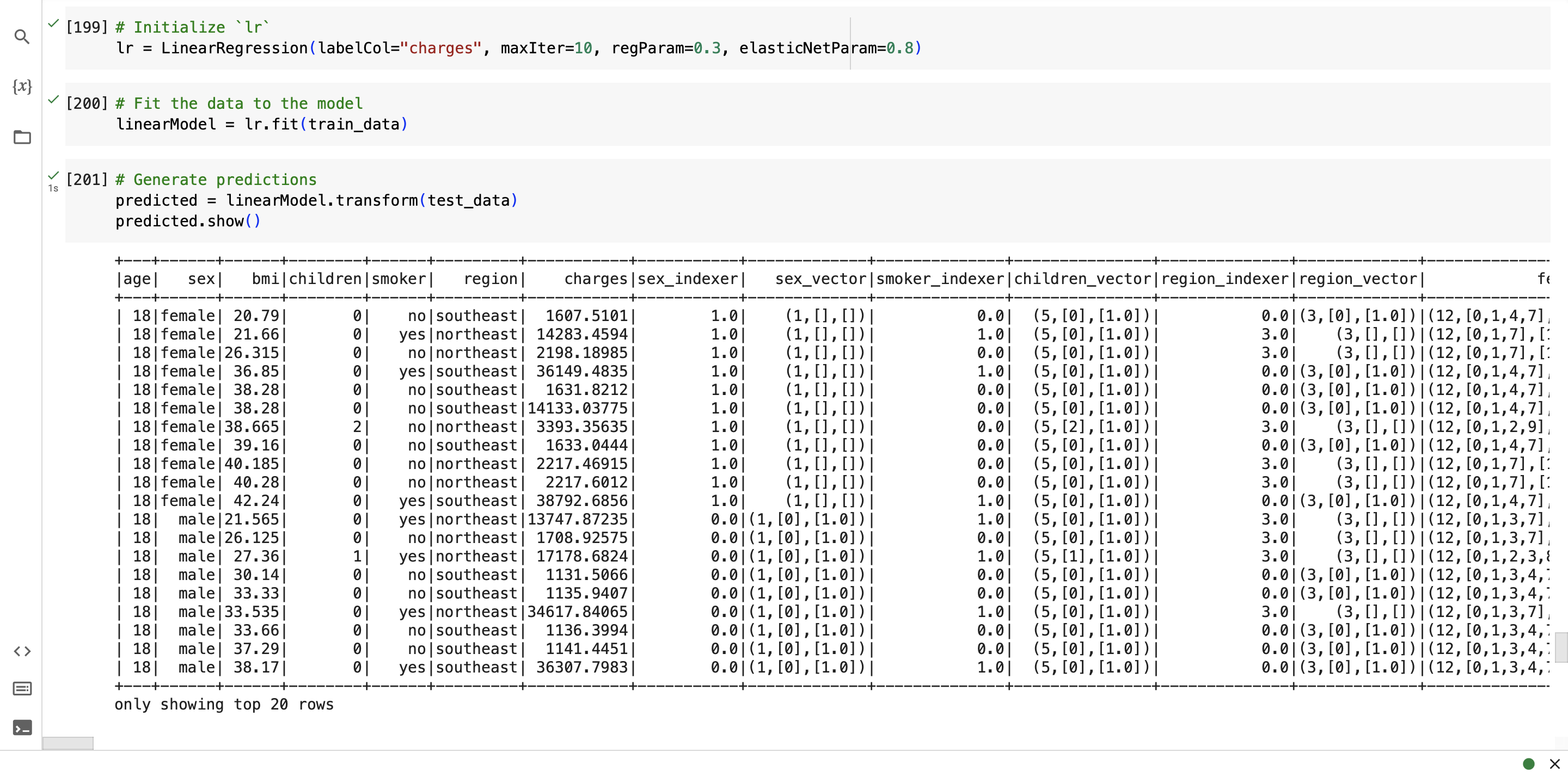


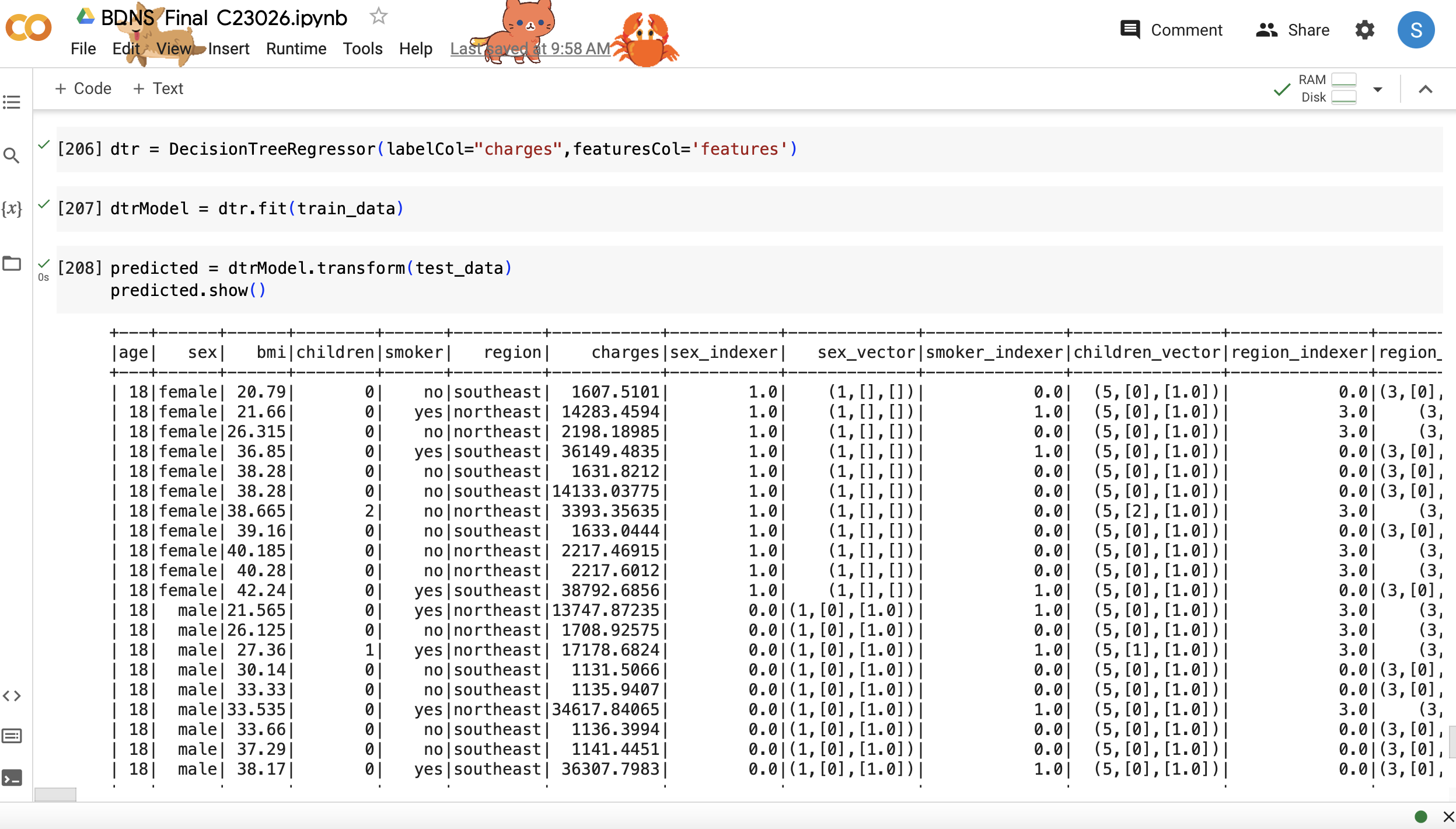


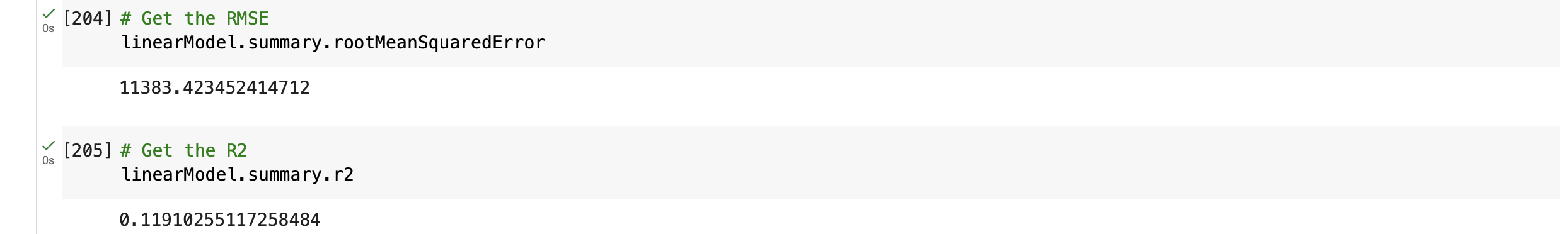
**Feature Engineering:**

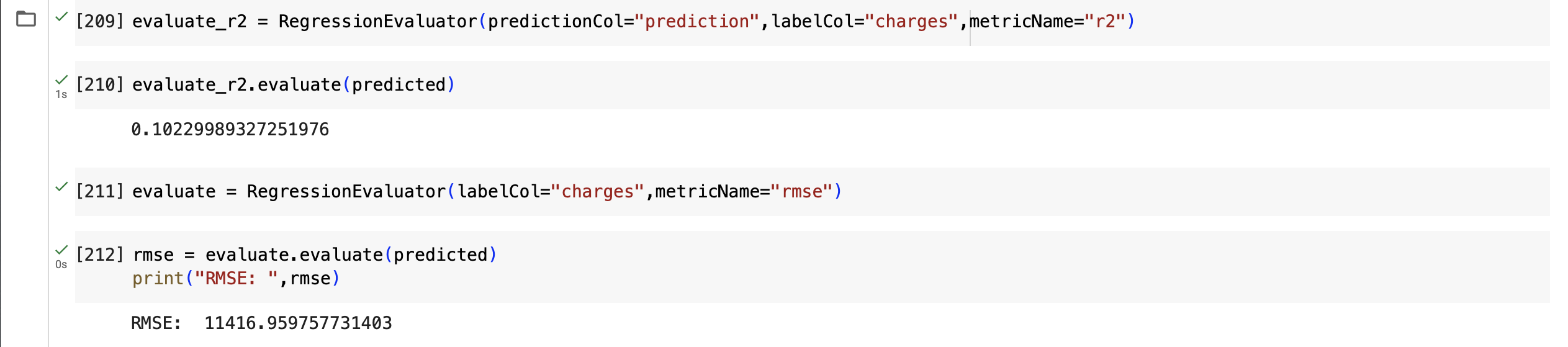
* Indexing Categorical Variables
* Encoding Categorical Variables
* Vectorising
* Scaling

**Modelling:**

**Linear Model**

**Decision Tree**

**Model Comparison**

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**Conclusion:**

Linear Regression Model has given the better result with lower RMSE and higher R2