

# ***Click through rate prediction***

*by*

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# Problem statement

You are required to predict whether a user will click on an ad or not. A classification method usually designed to solve such problems is best suited here. However, as part of this assignment, you will be required to apply any 3 of the classification methods taught in Course 3 – The introduction to Machine Learning.

# Model selection

The problem statement requires us to build three models that can predict whether an user will click an ad or not. Since it is a classification problem, I am using the following three models

1. Logistic regression with RFE
2. Decision tree classification with hyper tuning
3. Random forest

# Inferences from the model

- Logistic regression with RFE = 0.8292
- Decision Tree Classifier with hyperparameter tuning = 0.8303
- Random Forests = 0.82
- As we can see from the results Decision tree classification gives a better accuracy than the other two models with an accuracy of 83%.

THE END