

Group No: 46

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Title: Divorce Prediction**Introduction:**

The main objective of this project is to apply machine learning concepts to predict whether there will be a divorce occur between couples in a certain population. The difficulty that could be faced in here is to read the couples minds which will led to do uncertainty in their relationships due to factors such as economical, emotional, social and mental circumstances. This system would be put forward to clearly predict what would be the outcome that could happen after a marriage between couples.

Defining the ML problem:

- ✦ Task (T): Using relevant data, a regression model needs to be created to predict divorce between couples.
- ✦ Experience(E): A dataset with details about different couples, including their understanding, openness, availability, priority and similarities, will be utilized to train the algorithm.
- ✦ Performance Measure (P): Predict the divorce or marriage life for a couple by considering marriage requirements

Data:

Web link for data set : <https://www.kaggle.com/datasets/andrewmvd/divorce-prediction> Features - 10 features

1. Understanding
2. Acceptance
3. Openness
4. Responsiveness
5. Volubility
6. Time management
7. Connection
8. Time allocating
9. Priority
10. Similarities

No of examples: 170

Possible methods of handling missing data : Imputation

Regression Imputation: Predict missing values using a regression model based on other variables

Algorithms:

1. Logistic Regression
2. Decision tree