

# PREDICTION OF DEMISE

A detailed fingerprint is visible in the center of the image, set against a dark, heavily scratched and textured background. The fingerprint shows clear ridge patterns.

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# Abstract

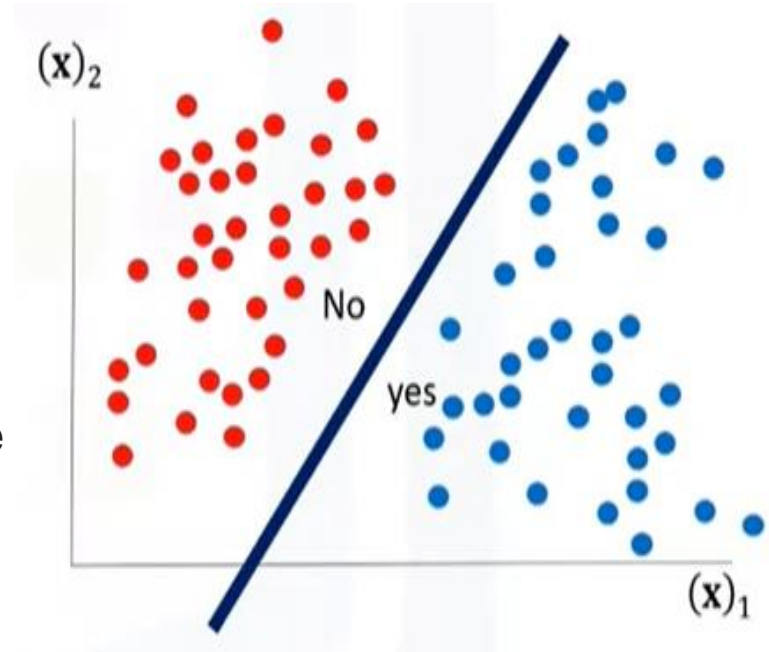
- In this world nearly 3.5 million death cases are still pending without knowing their cause.
- To find its cause, Forensic should go through several reports, old datasets, and reports, which is very difficult and it's a huge process.
- To overcome this problem, we have planned to develop a machine learning model that predicts the cause of death by comparing the current dataset with the previous datasets, therefore reducing the time conception for the forensic team to find the cause of demise.

# Introduction

- Detection and analysis of the demise have always been a major issue for the forensic and the medical research team.
- Demise is difficult to predict because it is a complex problem with many trouble and contributing factors.
- AI may overcome many limitations of traditional demise screening tools and increase the accuracy of predictions.
- This can be done by using Machine Learning algorithms in Neural Networks and logistic regression by comparing the current Forensic report with the Forensic report.

# Logistic regression

- Logistic regression is a statistical and machine learning technique for classifying records of a dataset based on the values of the input fields.
- Logistic regression is a class of regression where **the independent variable is used to predict the dependent variable**
- This type of analysis can help you predict the likelihood of an event happening or a choice being made.



# Types of Logistic regression:

## **Binary Logistic Regression:**

- The categorical response has only two possible outcomes. Example: Spam or Not

## **Multinomial Logistic Regression:**

- Three or more categories without ordering. Example: Predicting which food is preferred more (Veg, Non-Veg, Vegan)

## **Ordinal Logistic Regression:**

- Three or more categories with ordering. Example: Movie rating from 1 to 5

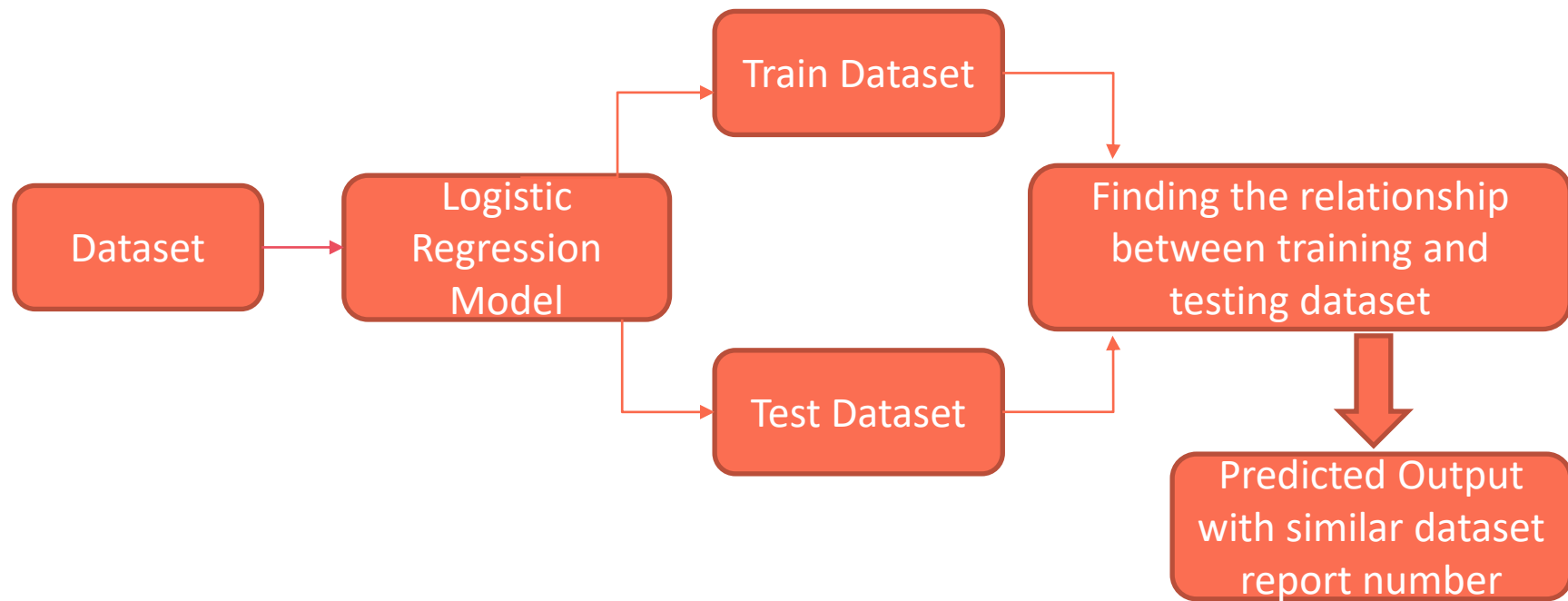
Example Dataset:

Report No.	Gender	Age	Health Condition	Year	State	Suspect	Hazard Objects	Wounds	Prediction
1001	Male	21	Cancer	2014	India	1	Knife	Yes	Murder
1002	Female	53	Illness (Aids/STD)	2016	India	3	None	Yes	Murder
1003	Female	45	None	2006	India	0	Blade	Yes	Suicide
1004	Male	65	None	2004	India	0	Knife	No	Natural Death
1005	Male	15	Bp	2001	India	4	Knife	No	Natural Death
1006	Female	65	None	2015	India	2	None	Yes	Murder
1007	Male	14	Bp	1915	India	1	Poison Bottle	No	?



Murder

# WORKING



- First of all we should collect the previous year forensic report dataset and will be loaded in our logistic regression model so that it will be tested and trained.
- Once testing and training is done, we will be loading a new report of the new crime and our model will be comparing the current crime scenario with the old crime scenario dataset that will be already stored.
- The comparison will be done using this logistic regression in machine learning technique, Once the comparison is done our model will come to a conclusion that it is a natural death, murder or Suicide.
- Addition to it our model will also provide previous Forensic report ID which matches with current forensic report, so that the forensic team can also access previous Forensic reports for further verification.



# Conclusion

By this method forensics team can easily predict that it is a natural death, murder or Suicide. And this method also reduces time consumption.

Thank You

