**WEEK1**

1. WHAT IS ML?

**Machine learning is like training a model to learn patterns based on the given data or pattern we feed to a machine without programming and rules, just like a robot identifying models of cars or anime characters once to tell it which character is obito, which is nezuko ,which is chise or which one is McLaren , Alphine etc it will likely figure it out the next time which one is who!! Interesting right**

1. WHAT IS SUPERVISED ML ALGORITHM?

Supervised ML algorithms learn from labelled data meaning, they are trained on examples where the correct answers are already provided.

After enough training, they can predict outcomes for new, unseen data.

Like for ex: if a person like anime and builds a model for anime recommendation then based on the preferences that person watches it will likely appear in its next searches or recommendation.

Ex: if you visit ice-cream shop frequently and buys coco ice-cream in a pattern based on alternative days then the person selling the ice-cream would definitely be recommending you the coco ice-cream the alternative day.

1. WHAT IS REGRESSION?

Regression is a method in Machine leaning which learns based on the previous results of any past experience.  
Regression is used to predict numerical values based on patterns. Some examples:  
House Prices – Predicting the price of a house based on its size and location.  
Weather Forecast – Estimating tomorrow’s temperature based on past trends.  
Salary Prediction – Guessing someone's salary based on experience and education.

Test score prediction💀- predicting exam scores based on the last scores a person has on their test results

1. WHAT IS CLASSIFICATION?

**Classification is like sorting things into groups based on their features. So its** a type of supervised machine learning where an algorithm learns to categorize data into distinctgroupsorlabels. It's like sorting things into different buckets based on their characteristics!

It analyses features to understand differences between categories. When given new data, the model assigns it to the most appropriate category.