1)What is Machine Learning

Machine Learning is a way for computers to learn from data without being directly programmed.  
It finds patterns in the data and uses them to make predictions or decisions.  
For example, it can learn to recognize faces in photos or suggest movies you might like.  
The more data it sees, the better it can learn and improve over time.  
It's like teaching a computer by showing examples instead of giving step-by-step instructions.

2)What is supervised machine learning algorithm

Supervised machine learning is a type of learning where the model is trained on labeled data.  
Each training example includes both the input and the correct output (label).  
The model learns to map inputs to the correct outputs by finding patterns in the data.  
It is called "supervised" because the learning process is guided by known answers.  
Examples include classification (like spam detection) and regression (like price prediction).

3)What is Regression and Classification

**Regression** and **Classification** are two types of supervised machine learning tasks:

* **Regression** is used when the output is a continuous value, like predicting house prices or temperature.
* **Classification** is used when the output is a category or class, like identifying emails as "spam" or "not spam".
* In regression, the model predicts numbers; in classification, it predicts labels or categories.
* Both use labeled data to learn from examples and make future predictions.