**Quiz for Week 1 – Start of Class**

1. What is the key difference between predictive and generative AI?

A. Predictive AI focuses on interpreting existing data to make predictions, while generative AI is designed to create new, synthetic data or content.

B. Predictive AI requires more computational power than generative AI.

C. Generative AI is used exclusively in robotics, whereas predictive AI is not.

D. Predictive AI can learn from data autonomously, while generative AI requires manual programming for each task.

E. Generative AI algorithms are simpler in structure compared to predictive AI algorithms.

1. What is the key difference between supervised and unsupervised learning?

A. Unsupervised learning is only used for classification tasks, while supervised learning is used for regression tasks.

B. In supervised learning, the model makes predictions without any guidance, while in unsupervised learning, the model receives feedback during training.

C. Supervised learning is used for clustering, while unsupervised learning is used for making predictions.

D. Supervised learning requires labeled training data, while unsupervised learning does not rely on labeled data.

E. Unsupervised learning requires a validation set, whereas supervised learning does not.

1. Sentiment analysis helps you predict the following?

A. The probability of a system failure in IT networks.

B. The emotional tone behind a series of words, used to gain an understanding of the attitudes, opinions, and emotions expressed.

C. Future trends in stock market prices.

D. The accuracy of GPS systems in navigation devices.

E. The nutritional content of food items based on their ingredients.

1. If we do sentiment analysis using labeled data, which category does it fall into?
2. Predictive AI
3. Generative AI
4. If we do sentiment analysis using Naïve Bayes algorithm, which learning algorithm did we use?
5. Supervised learning algorithm
6. Unsupervised learning algorithm