## **Assignment-1**

- 1. How would you define Machine Learning?
- 2. What are the two most common supervised tasks?
- 3. Can you name four common unsupervised tasks?
- 4. What type of Machine Learning algorithm would you use to allow a robot to walk in various unknown terrains?
- 5. What type of algorithm would you use to segment your customers into multiple groups? Explain your answer?
- 6. Would you frame the problem of spam detection as a supervised learning problem or an unsupervised learning problem? Explain your answer?
- 7. Can you name (with Example) four of the main challenges in Machine Learning?
- 8. What type of learning algorithm relies on a similarity measure to make predictions?
- 9. If your model performs great on the training data but generalizes poorly to new instances, what is happening? Can you name three possible solutions?
- 10. What is the difference between overfitting and underfitting
- 11. What is a test set and why would you want to use it?

## What to Submit: Canvas Classroom.

Assignment1YourName.pdf (e.g., Assignment-1AliAburas.pdf). That contains all the answers to the above questions.