Python Q1 answer:

<https://github.com/raghotham-336/iNeuron_assesment1/blob/6dcd44ab75fb2260d748c343cd3b83a818d257e5/Q1_Python_search%20a%202D%20matrix.ipynb>

Python Q2 answer:

<https://github.com/raghotham-336/iNeuron_assesment1/blob/5e31b517de8a217b4d38d270311d80d263969da8/Q2_Python.ipynb>

Machine Learning Q1 Answer:

<https://github.com/raghotham-336/iNeuron_assesment1/blob/e35e2dadcbbfb545832f47de810f6049bb6044a1/Q1_Instagram_Reach_Prediction.ipynb>

**Machine Learning Q2 Answer:**

Machine learning is an application of artificial intelligence that uses statistical techniques to enable computers to learn and make decisions without being explicitly programmed. It is predicated on the notion that computers can learn from data, spot patterns, and make judgments with little assistance from humans.

It is a subset of Artificial Intelligence. It is the study of making machines more human-like in their behaviour and decisions by giving them the ability to learn and develop their own programs. This is done with minimum human intervention, i.e., no explicit programming. The learning process is automated and improved based on the experiences of the machines throughout the process.

Good quality data is fed to the machines, and different algorithms are used to build ML models to train the machines on this data. The choice of algorithm depends on the type of data at hand and the type of activity that needs to be automated.

There are 7 steps to apply machine learning to the real-world problem. First of all, we need to decide the domain problem in which we are going to work. Based on the research of the domain and understand various challenges of the domain facing and choose a problem statement to implement the ML solution.

1. Gathering Data
2. Preparing that data
3. Choosing a model
4. Training
5. Evaluation
6. Hyperparameter Tuning
7. Prediction

Support vector regressor implementation is given below.

<https://github.com/raghotham-336/iNeuron_assesment1/blob/5bf29cda6555884794a858ddf5ba94edf23a7a8e/house-price-prediction.ipynb>