Machine Learning assignment 1-

1. *Do you think DL is going to replace ML in the near future? Why?*

--Deep learning can replace ML in many fields. As in Deep learning everything is automated. To go for an easy example, I will take driverless car. Deep learning can detect objects on its own hence reduces the risk of accidents due to negligence. But providing a large number of photographs is also a challenge in deep learning. But actually huge data can also improve accuracy. In ML there are only a few labelled pictures based on them others are classified, so some dangers may not be included. Also in deep learning the machine starts identifying new objects as it stumbles upon new objects in the pictures while the car is taken on road. But ML uses only those which are already labelled and fed to the system. So Deep learning is more flexible and evolving than Machine learning. So I think DL is going to replace ML in near future.

2. *Pros and Cons Of various types of learning?*

a) Supervised learning:

Pros- You know what is right or wrong before starting. So when the system encounters something it can lead to respective algorithms as designated before. There is no need to learn from the activity of user. Also it can correct the user.

Cons- when it encounters new things which are not specified before, it doesn't detect it ever. It does not have many ways to deal with an issue unlike unsupervised and reinforced learning.

b) Unsupervised learning:

Pros- We can have numerous and unspecified inputs unlike supervised learning. It just accepts whatever inputs we give and there is no output.

Cons- It does not know whether the input is right or wrong. It may analyze the input but only to certain extent.

c) Reinforced learning:

Pros- The input are not specified neither the outputs for the inputs are fed to the system. It takes an input then tries all the possible outputs in order to choose the right output. So it learns from every new inputs, hence the data it stores is huge.

Cons- When it is trying out all the ways it might lead the wrong one and so one may incur loses. It takes time for the system to analyze the output for particular inputs.