Problem 2

Deep reinforcement learning is a useful technique for realizing goal-oriented algorithms. It combines the idea of reinforcement algorithm with deep learning and has been shown to be very effective in many different application scenarios. Answer the following questions:

1) Please provide a detailed review of deep reinforcement learning.

2) How would you apply deep reinforcement learning for tuning the performance of a DB system? (i.e., like what OtterTune does, but using deep reinforcement learning). Please outline your problem formulation, overview of your approach, and a sketch analysis.