## FROZEN LAKE EVALUATION AND RESULTS

The evaluation of the models was conducted using the FrozenLakeAPI over 100 episodes. The results are as follows:

**DQN**:

**Mean reward**: 0.73

**Standard deviation**: 0.44

**PPO**:

**Mean reward**: 0.50

**Standard deviation**: 0.50

### Analysis

From these results, it is evident that the DQN model outperforms the PPO model in this specific reinforcement learning task. The higher mean reward achieved by the DQN model indicates a better performance in navigating the Frozen Lake environment and obtaining greater rewards.

In contrast, the PPO model, while still effective, did not perform as well as the DQN model, as reflected in its lower mean reward. The standard deviation values suggest that the DQN model's performance is more consistent compared to the PPO model.

### Conclusion

The DQN model demonstrates superior performance for the Frozen Lake task, making it a more suitable choice for this particular environment. Further analysis and tuning could potentially enhance the performance of both models.

