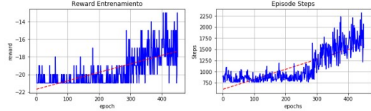


1 of 3

[illegible]

```
462069/500000: episode: 429, duration: 13.954s, episode steps: 1621, steps per second: 116, episode reward: -17.000, mean reward: -0.010 [-1.000, 1.000], mean action: 2.397 [0.000, 5.000], mean observation: 105.579 [87.000, 236.000], loss: 0.005578, mean_absolute_error: 0.378647, mean_q: -0.376931, mean_mse: 0.100000
463979/500000: episode: 430, duration: 16.488s, episode steps: 1910, steps per second: 116, episode reward: -15.000, mean reward: -0.008 [-1.000, 1.000], mean action: 2.528 [0.000, 5.000], mean observation: 105.536 [87.000, 236.000], loss: 0.005571, mean_absolute_error: 0.378443, mean_q: -0.375177, mean_mse: 0.100000
465972/500000: episode: 431, duration: 15.512s, episode steps: 1793, steps per second: 116, episode reward: -18.000, mean reward: -0.010 [-1.000, 1.000], mean action: 2.644 [0.000, 5.000], mean observation: 105.567 [87.000, 236.000], loss: 0.005630, mean_absolute_error: 0.381220, mean_q: -0.376668, mean_mse: 0.100000
467172/500000: episode: 432, duration: 13.128s, episode steps: 1600, steps per second: 117, episode reward: -17.000, mean reward: -0.011 [-1.000, 1.000], mean action: 2.445 [0.000, 5.000], mean observation: 105.586 [87.000, 236.000], loss: 0.005380, mean_absolute_error: 0.374919, mean_q: -0.370502, mean_mse: 0.100000
468892/500000: episode: 433, duration: 12.388s, episode steps: 1510, steps per second: 116, episode reward: -19.000, mean reward: -0.013 [-1.000, 1.000], mean action: 2.495 [0.000, 5.000], mean observation: 105.585 [87.000, 236.000], loss: 0.005665, mean_absolute_error: 0.381156, mean_q: -0.381792, mean_mse: 0.100000
470247/500000: episode: 434, duration: 13.718s, episode steps: 1595, steps per second: 116, episode reward: -18.000, mean reward: -0.011 [-1.000, 1.000], mean action: 2.291 [0.000, 5.000], mean observation: 105.558 [87.000, 236.000], loss: 0.005881, mean_absolute_error: 0.380531, mean_q: -0.378211, mean_mse: 0.100000
472173/500000: episode: 435, duration: 14.733s, episode steps: 1761, steps per second: 115, episode reward: -17.000, mean reward: -0.010 [-1.000, 1.000], mean action: 2.420 [0.000, 5.000], mean observation: 105.554 [87.000, 236.000], loss: 0.005835, mean_absolute_error: 0.374132, mean_q: -0.369841, mean_mse: 0.100000
473977/500000: episode: 436, duration: 15.362s, episode steps: 1804, steps per second: 116, episode reward: -15.000, mean reward: -0.008 [-1.000, 1.000], mean action: 2.518 [0.000, 5.000], mean observation: 105.551 [87.000, 236.000], loss: 0.005253, mean_absolute_error: 0.376122, mean_q: -0.372517, mean_mse: 0.100000
475426/500000: episode: 437, duration: 12.392s, episode steps: 1449, steps per second: 117, episode reward: -19.000, mean reward: -0.013 [-1.000, 1.000], mean action: 2.435 [0.000, 5.000], mean observation: 105.545 [87.000, 236.000], loss: 0.005567, mean_absolute_error: 0.376460, mean_q: -0.373567, mean_mse: 0.100000
477117/500000: episode: 438, duration: 14.569s, episode steps: 1691, steps per second: 116, episode reward: -16.000, mean reward: -0.009 [-1.000, 1.000], mean action: 2.556 [0.000, 5.000], mean observation: 105.548 [87.000, 236.000], loss: 0.005457, mean_absolute_error: 0.381570, mean_q: -0.378654, mean_mse: 0.100000
479100/500000: episode: 439, duration: 17.033s, episode steps: 1983, steps per second: 116, episode reward: -14.000, mean reward: -0.007 [-1.000, 1.000], mean action: 2.532 [0.000, 5.000], mean observation: 105.537 [87.000, 236.000], loss: 0.005484, mean_absolute_error: 0.379764, mean_q: -0.376129, mean_mse: 0.100000
481246/500000: episode: 440, duration: 18.468s, episode steps: 2164, steps per second: 116, episode reward: -14.000, mean reward: -0.006 [-1.000, 1.000], mean action: 2.515 [0.000, 5.000], mean observation: 105.570 [87.000, 236.000], loss: 0.005630, mean_absolute_error: 0.376241, mean_q: -0.369505, mean_mse: 0.100000
482857/500000: episode: 441, duration: 13.743s, episode steps: 1593, steps per second: 116, episode reward: -19.000, mean reward: -0.012 [-1.000, 1.000], mean action: 2.420 [0.000, 5.000], mean observation: 105.496 [87.000, 236.000], loss: 0.005290, mean_absolute_error: 0.373009, mean_q: -0.364684, mean_mse: 0.100000
484430/500000: episode: 442, duration: 13.564s, episode steps: 1579, steps per second: 116, episode reward: -17.000, mean reward: -0.011 [-1.000, 1.000], mean action: 2.358 [0.000, 5.000], mean observation: 105.548 [87.000, 236.000], loss: 0.005188, mean_absolute_error: 0.376221, mean_q: -0.368124, mean_mse: 0.100000
486755/500000: episode: 443, duration: 19.888s, episode steps: 2319, steps per second: 117, episode reward: -15.000, mean reward: -0.006 [-1.000, 1.000], mean action: 2.617 [0.000, 5.000], mean observation: 105.546 [87.000, 236.000], loss: 0.005460, mean_absolute_error: 0.376324, mean_q: -0.369420, mean_mse: 0.100000
488494/500000: episode: 444, duration: 14.833s, episode steps: 1739, steps per second: 117, episode reward: -19.000, mean reward: -0.011 [-1.000, 1.000], mean action: 2.533 [0.000, 5.000], mean observation: 105.574 [87.000, 236.000], loss: 0.005169, mean_absolute_error: 0.375029, mean_q: -0.367852, mean_mse: 0.100000
490429/500000: episode: 445, duration: 16.388s, episode steps: 1935, steps per second: 115, episode reward: -19.000, mean reward: -0.010 [-1.000, 1.000], mean action: 2.452 [0.000, 5.000], mean observation: 105.422 [87.000, 236.000], loss: 0.005267, mean_absolute_error: 0.377122, mean_q: -0.371409, mean_mse: 0.100000
492447/500000: episode: 446, duration: 16.530s, episode steps: 1918, steps per second: 116, episode reward: -15.000, mean reward: -0.008 [-1.000, 1.000], mean action: 2.452 [0.000, 5.000], mean observation: 105.564 [87.000, 236.000], loss: 0.005355, mean_absolute_error: 0.377612, mean_q: -0.371072, mean_mse: 0.100000
493560/500000: episode: 447, duration: 10.386s, episode steps: 1213, steps per second: 115, episode reward: -21.000, mean reward: -0.017 [-1.000, 0.000], mean action: 2.469 [0.000, 5.000], mean observation: 105.442 [87.000, 236.000], loss: 0.005068, mean_absolute_error: 0.376343, mean_q: -0.372363, mean_mse: 0.100000
495170/500000: episode: 448, duration: 13.944s, episode steps: 1610, steps per second: 115, episode reward: -20.000, mean reward: -0.012 [-1.000, 1.000], mean action: 2.623 [0.000, 5.000], mean observation: 105.621 [87.000, 236.000], loss: 0.005204, mean_absolute_error: 0.382274, mean_q: -0.377230, mean_mse: 0.100000
497138/500000: episode: 449, duration: 17.760s, episode steps: 2068, steps per second: 116, episode reward: -13.000, mean reward: -0.004 [-1.000, 1.000], mean action: 2.396 [0.000, 5.000], mean observation: 105.552 [87.000, 236.000], loss: 0.005266, mean_absolute_error: 0.376189, mean_q: -0.371446, mean_mse: 0.100000
498770/500000: episode: 450, duration: 13.389s, episode steps: 1532, steps per second: 116, episode reward: -18.000, mean reward: -0.012 [-1.000, 1.000], mean action: 2.555 [0.000, 5.000], mean observation: 105.511 [87.000, 236.000], loss: 0.005326, mean_absolute_error: 0.380002, mean_q: -0.375463, mean_mse: 0.100000
done, took 4338.117 seconds
Pease guardaino m = 202001051045_dqn_PongDeterministic-v0_weights.h5f
```



Testing for 10 episodes ...

```
Episode 1: reward: -18.000, steps: 1852
Episode 2: reward: -18.000, steps: 1885
Episode 3: reward: -18.000, steps: 1816
Episode 4: reward: -17.000, steps: 2111
Episode 5: reward: -12.000, steps: 2282
Episode 6: reward: -17.000, steps: 2195
Episode 7: reward: -16.000, steps: 1859
Episode 8: reward: -14.000, steps: 1920
Episode 9: reward: -12.000, steps: 2451
Episode 10: reward: -12.000, steps: 2275
mean reward: -15.4
mean_steps: 2059.4
(-15.4, 2059.4)
```