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1 "D:\Files\Desktop\Git Repo\Reinforcement_Learning\.
  venv\Scripts\python.exe" "D:\Files\Desktop\Git Repo\
  Reinforcement_Learning\Atari DQN Project\Linear.py"
2 Starting Training
3 layer weights: Parameter containing:
4 tensor([[ 0.7310],
5          [-0.1011]], dtype=torch.float64,
   requires_grad=True)
6 layer weights: Parameter containing:
7 tensor([[ 0.2021],
8          [-0.4569]], dtype=torch.float64,
   requires_grad=True)
9 =====
10 Summary BEFORE training
11
12 =====
13 Summary:
14 State   Action   Next State   Reward
15 0        0        Q(s,a)= tensor(-0.0161, dtype=
   torch.float64, grad_fn=<SelectBackward0>)
16 0        1        Q(s,a)= tensor(0.2504, dtype=torch
   .float64, grad_fn=<SelectBackward0>)
17 1        0        Q(s,a)= tensor(0.1860, dtype=torch
   .float64, grad_fn=<SelectBackward0>)
18 1        1        Q(s,a)= tensor(-0.2065, dtype=
   torch.float64, grad_fn=<SelectBackward0>)
19 2        0        Q(s,a)= tensor(0.3880, dtype=torch
   .float64, grad_fn=<SelectBackward0>)
20 2        1        Q(s,a)= tensor(-0.6633, dtype=
   torch.float64, grad_fn=<SelectBackward0>)
21 =====
22
23 Best trajectory:
24 Best trajectory from Test Environment
25 State: tensor([0.], dtype=torch.float64) Action: 1
   Reward Received: 0
26 State: tensor([0.], dtype=torch.float64) Action: 1
   Reward Received: 0
27
28 Total Reward Received: 0
29 Taking a look at model parameters to see if weights

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29 are changing
30 Parameter containing:
31 tensor([[ 0.2021],
32         [-0.4569]], dtype=torch.float64,
    requires_grad=True)
33 Parameter containing:
34 tensor([-0.0161,  0.2504], dtype=torch.float64,
    requires_grad=True)
35 =====
36
37 Done Training
38 Summary AFTER training
39
40 =====
41 Summary:
42 State   Action   Next State   Reward
43 0        0      Q(s,a)= tensor(-2.7185e-17, dtype=
    torch.float64, grad_fn=<SelectBackward0>)
44 0        1      Q(s,a)= tensor(-4.1734e-76, dtype=
    torch.float64, grad_fn=<SelectBackward0>)
45 1        0      Q(s,a)= tensor(1.0000, dtype=torch
    .float64, grad_fn=<SelectBackward0>)
46 1        1      Q(s,a)= tensor(-2.0140e-74, dtype=
    torch.float64, grad_fn=<SelectBackward0>)
47 2        0      Q(s,a)= tensor(2.0000, dtype=torch
    .float64, grad_fn=<SelectBackward0>)
48 2        1      Q(s,a)= tensor(-3.9864e-74, dtype=
    torch.float64, grad_fn=<SelectBackward0>)
49 =====
50
51 Best trajectory:
52 Best trajectory from Test Environment
53 State: tensor([0.], dtype=torch.float64) Action: 1
    Reward Received: 0
54 State: tensor([0.], dtype=torch.float64) Action: 1
    Reward Received: 0
55
56 Total Reward Received: 0
57 Taking a look at model parameters to see if weights
    are changing
58 Parameter containing:

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59 tensor([[ 1.0000e+00],
60         [-1.9723e-74]], dtype=torch.float64,
    requires_grad=True)
61 Parameter containing:
62 tensor([-2.7185e-17, -4.1734e-76], dtype=torch.
    float64, requires_grad=True)
63
64 Process finished with exit code 0
65
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