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Assignment-02

CSE-377 (Neural Network)

Input:

Given,

Stride = 1, Padding = 1, Max polling = (2,2)

Input:

```
0  1  1  0  1          0  0  0  0  0  0  0
0  1  1  0  1          0  0  1  1  0  1  0
0  1  1  0  1          0  0  1  1  0  1  0
0  1  1  0  1          0  0  1  1  0  1  0
0  1  1  0  1          0  0  1  1  0  1  0
                       0  0  1  1  0  1  0
                       0  0  1  1  0  1  0
                       0  0  0  0  0  0  0
```

Here,

Padding + Filter 1

```
1 0 1         2  3  2  3  1
1 1 1    =    3  4  3  5  1
0 0 1         3  4  3  5  1
              3  4  3  5  1
              2  3  3  4  1
```

Padding:

```
0  0  0  0  0  0  0              0  0  1
0  0  1  1  0  1  0              1  0  0
0  0  1  1  0  1  0      *       0  1  1
0  0  1  1  0  1  0
0  0  1  1  0  1  0
0  0  1  1  0  1  0
0  0  0  0  0  0  0
```

After filter 2:

1	2	2	2	1
2	3	2	3	1
2	3	2	3	1
2	3	2	3	1
1	1	1	2	0

+

Filter -1:

2	3	2	3	1
3	4	3	5	1
3	4	3	5	1
3	4	3	5	1
2	3	3	4	1

,

=

3	5	4	5	2
5	7	5	8	2
5	7	5	8	2
5	7	5	8	2
3	4	4	6	1

∴ Max pooling   2×2   Stride = 1

7	7	8	8
7	7	8	8
7	7	8	8
7	7	8	8

Ans.