

### Exercise 3: A matter of life and death

#### Instructions

Calculate the next iteration of the game of life. Here are the rules:

- A new inhabitant is born into an empty cell that has exactly 3 neighbours
- An inhabitant of a cell survives if it has 2 or 3 neighbours.

Input:

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

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Output:

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