

## Quiz 8

COMP9021 Principles of Programming

2016 session 2

### Sample outputs

We print out a list (we pass a list as argument to `print()`).  
So this list is printed out on one line.

```
$ python3 quiz_8.py
Enter one integer: 1
Here is the grid that has been generated:
  0  0  1  0  1  1  1  1  0  0
  1  0  1  1  0  1  1  0  0  1
  0  0  0  0  1  0  1  0  0  1
  1  0  1  0  0  1  1  0  1  0
  0  1  0  1  1  0  1  1  1  1
  0  1  0  1  1  0  1  1  0  1
  0  0  1  1  1  0  1  0  1  1
  0  0  0  0  0  0  1  1  1  1
  1  0  1  0  0  1  0  1  1  0
  1  1  1  1  1  0  1  1  0  0
```

There is no path from the top left corner

```
$ python3 quiz_8.py
Enter one integer: 7
Here is the grid that has been generated:
  1  0  1  0  0  0  1  0  0  0
  0  1  1  0  0  0  1  0  0  0
  0  1  0  0  0  0  1  1  0  0
  1  0  0  0  1  0  0  0  0  1
  1  1  1  1  1  1  0  0  0  0
  1  1  1  1  1  0  0  1  0  1
  0  1  1  0  0  1  1  1  1  1
  0  0  1  1  0  0  1  1  1  1
  1  0  1  1  0  0  1  0  0  1
  0  0  1  1  1  0  0  1  1  1
```

The leftmost longest path from the top left corner is `[(0, 0)]`

```
$ python3 quiz_8.py
Enter one integer: 0
Here is the grid that has been generated:
```

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

The leftmost longest path from the top left corner is [(0, 0), (0, 1), (1, 1)]

```
$ python3 quiz_8.py
Enter one integer: 9
Here is the grid that has been generated:
```

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

The leftmost longest path from the top left corner is [(0, 0), (0, 1), (0, 2)]

```
$ python3 quiz_8.py
```

```
Enter one integer: 16
```

```
Here is the grid that has been generated:
```

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

```
The leftmost longest path from the top left corner is [(0, 0), (0, 1),
(0, 2), (0, 3), (0, 4), (1, 4), (1, 5), (2, 5), (3, 5), (3, 4), (4, 4)]
```

```
$ python3 quiz_8.py
```

```
Enter one integer: 17
```

```
Here is the grid that has been generated:
```

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

```
The leftmost longest path from the top left corner is [(0, 0), (0, 1), (1, 1),
(1, 2), (0, 2), (0, 3), (1, 3), (2, 3), (2, 4), (3, 4), (4, 4), (5, 4), (6, 4),
(6, 5), (7, 5), (8, 5), (8, 6), (8, 7), (7, 7), (7, 6), (6, 6), (5, 6), (4, 6),
(3, 6), (2, 6)]
```