

## QUIZ 5

### COMP9021 PRINCIPLES OF PROGRAMMING

For clarifications on expected outputs, see Ed or program stub.

```
$ 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 0 1 0 0
1 0 0 0 1 1 0 1 1
1 1 0 1 1 0 1 0 1
0 0 1 0 1 0 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 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 0 0 1
1 0 1 0 0 1 1 0 0
1 0 0 0 0 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)]