

Solution Exercise 1

Visualize ComplexCity
Chair of Information Architecture
ETH Zürich

February 22, 2013

2 Loops

We only show one solution of all the possible ones.

a)

```
lines = 3
for i in range(0, lines):
    print("###")
```

b)

```
lines = 4
for i in range(0, lines):
    if i % 2 == 0:
        p = "###"
    else:
        p = "000"
    print(p)
```

c)

```
lines = 5
for i in range(0, lines):
    p = ""
    for j in range(-1, i):
        p = p + "#"
    print(p)
```

d)

```
lines = 3
i = 0
while i < lines:
    print("#0#0#0#")
    i = i + 1
```

e)

```
lines = 3
symb = ["#", "0"]
ind = 0
for i in range(0, lines):
    p = ""
    for j in range(0, 7):
        p = p + symb[ind]
        ind = (ind + 1) % 2
    print(p)
```

f)

```
lines = 5
zero = False
for i in range(0, lines):
    p = ""
    for j in range(-1, i):
        if zero:
            p = p + "0"
        else:
            p = p + "#"
        zero = not zero
    print(p)
```

g) To solve the exercises for user input, use the above solutions and change the lines

```
lines = ...
```

to

```
lines = int(input("Number of lines? "))
```

For example a) should then look like

```
lines = int(input("Number of lines? "))
for i in range(0, lines):
    print("###")
```