

# **Tute 03**

## **COMP1511 22T3**

### **Jack Robbers**

# content

- while loops
- enums and structs
- variable names

# 1D while loops

easiest to look at

<https://cgi.cse.unsw.edu.au/~cs1511/22T3/tut/03/questions>

# 2D while loops

```
void a(void) {
    int row = 0;
    while (row < SIZE) {
        int col = 0;
        while (col < SIZE) {
            if (row == col) {
                printf("O");
            } else {
                printf("X");
            }
            col++;
        }
        row++;
        printf("\n");
    }
}
```

```
void c(void) {
    int row = 0;
    while (row < SIZE) {
        int col = 0;
        while (col < SIZE) {
            if (col != 1 && row != 1) {
                printf("O");
            } else {
                printf("X");
            }
            col++;
        }
        row++;
        printf("\n");
    }
}
```

```
void b(void) {
    int row = 0;
    while (row < SIZE) {
        int col = 0;
        while (col < SIZE) {
            if (col % 2 == 0) {
                printf("O");
            } else {
                printf("X");
            }
            col++;
        }
        row++;
        printf("\n");
    }
}
```

```
void d(void) {
    int row = 0;
    while (row < SIZE) {
        printf("X");
        int col = 1;
        while (col < 3) {
            if (row == 0 || row == 3) {
                printf("X");
            } else {
                printf("O");
            }
            col++;
        }
        printf("X");
        row++;
        printf("\n");
    }
}
```

0XXX  
X0XX  
XX0X  
XXX0

0X0X  
0X0X  
0X0X  
0X0X

0X00  
XXXX  
0X00  
0X00

XXXX  
X00X  
X00X  
XXXX

# enums and structs

```
struct person {  
    int shoe_size;  
    double height;  
    char first_name_initial;  
};  
  
enum opal_card_type {  
    ADULT,  
    STUDENT,  
    CONCESSION  
};
```

# variable names

In your groups come up with at least 5 variable names of which some are:

- valid
- invalid
- bad style
- good style