

Lab 11 : 2D Dynamic Array & Dynamic Array in C programming

For UNT CSCE1030 Fall 2021

TA Poli Nemkova

Poli.Nemkova@unt.edu

Syntax for dynamic 2D arrays in C++

Recall that a 2D array is basically a 1D array of pointers, where every pointer is pointing to a 1D array, which will hold the actual data.

```
int** grades = new int*[number_of_student];
```

*Good source to read more is [here](#).

Memory allocation and deleting in C

1) Allocate memory for dynamic array in C using malloc():

```
double *ptr=(double*)malloc(sizeof(double));
```

2) Realloc() is used to change the size of memory block:

```
ptr=realloc(ptr, (count+1)*sizeof(double));
```

3) Delete pointers using free():

```
free (ptr)
```

Compiling C program

Gcc Lab.c

(instead of g++ Lab.cpp)

Don't forget the headers

- `#include "stdio.h"`
- `#include "stdlib.h"`