***CS 162 Assignment 05*** *(****Pointers/Dynamic Arrays****)*

## For the current week’s assignment, you will do the following:

1. ***Review the program below and complete the parts outlined in red:***

#include <iostream> #include <string> #include <iomanip> using namespace std;

struct employee{ string emp\_name; int emp\_id;

string emp\_group;

*};*

void init\_ee\_employee(employee\* ee\_ptr){

//Write the body of the init\_ee\_employee function

*}*

void init\_mgr\_employee(employee\* mgr\_ptr){

//Write the body of the init\_mgr\_employee function

*}*

int main(){

employee \*ee\_emp = nullptr; employee \*mgr\_emp = nullptr;

employee engineer; employee general\_manager;

ee\_emp=&engineer; mgr\_emp=&general\_manager;

init\_ee\_employee(ee\_emp); init\_mgr\_employee(mgr\_emp);

//Print the contents of the engineering employee’s details. Your output should be of the form: Engineering Employee Name = Josh

Engineering Employee ID = 100 Engineering Employee Group = Software

// /Print the contents of the General Manager employee’s details. Your output should be of the form:

Engineering Employee Name = Tom Engineering Employee ID = 101

Engineering Employee Group = Management

//\*\*\*\*\*\*\* return 0;

*}*

# Review the code below and then complete the functions mentioned in red:

# include <iostream> #include <string> #include <iomanip> using namespace std;

struct building{ string building\_type;

string building\_location; int number\_of\_floors;

void setNumberofFloors(int floors){ number\_of\_floors = floors;

*}*

int getNumberofFloors(){ return number\_of\_floors;

*}*

*};*

int main(){

building \*apartment\_complex = nullptr; building high\_rise;

apartment\_complex = &high\_rise;

init\_apartment\_complex(apartment\_complex); print\_building(apartment\_complex);

//Define and complete the body of the init\_apartment\_complex function AND

*//the print\_building function. (Pick any values you prefer for building type and location and number of floors.* ***(Note: use the getter function (getNumberofFloors) to print the value for number of floors)***

return 0;

*}*

***Extra Credit: (Note that number\_of\_floors is now a pointer to an int)***

## Update the the init\_apartment\_complex function AND print\_building function to work with the struct below

struct building{ string building\_type;

string building\_location;

## int\* number\_of\_floors; //number\_of\_floors is a pointer to an int

void setNumberOfFloors(int\* floors){ number\_of\_floors = floors;

*}*

int getNumberOfFloors(){ return \*number\_of\_floors;

*}*

*};*