**COSC 330 Week 4 Code**

#include <stdio.h>

#include <stdlib.h>

typedef struct Professor {

char FirstName[21];

char LastName[21];

double salary;

} Professor;

int main() {

Professor ProfessorArr1[100];

printf("Size of Professor Structure is %zu\n", sizeof(Professor));

printf("Size of ProfessorArr1 array is %zu\n", sizeof(ProfessorArr1));

Professor \*ProfessorArr2 = (Professor \*)malloc(200 \* sizeof(Professor));

if (ProfessorArr2 == NULL) {

fprintf(stderr, "Memory allocation failed for ProfessorArr2\n");

return 1;

}

printf("Size of ProfessorArr2 array is %zu\n", 200 \* sizeof(ProfessorArr1));

printf("Address of ProfessorArr1[0] is %p\n", (void \*)&ProfessorArr1[0]);

printf("Address of ProfessorArr1[99] is %p\n", (void \*)&ProfessorArr1[99]);

printf("Address of ProfessorArr2[0] is %p\n", (void \*)&ProfessorArr2[0]);

printf("Address of ProfessorArr2[99] is %p\n", (void \*)&ProfessorArr2[99]);

free(ProfessorArr2);

return 0;

}

**Output**

**A screenshot of a computer

AI-generated content may be incorrect.**