

Quiz #5b

CS 211

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December 6, 2017

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Question 1

- A snippet of code is presented below.

At arrow #1, declare a dynamic array of strings called books (use the context of the provided code).

At arrows 2 & 3, the program is nearly finished executing, write the necessary commands to return the array to the heap and avoid dangling pointers.

```
int size;  
cout << "How many books will be recorded? ";  
cin >> size;
```

1->

```
// Program does stuff
```

2->

3->

```
return 0;
```

Question 1

- A snippet of code is presented below.

At arrow #1, declare a dynamic array of doubles called books (use the context of the provided code).

At arrows 2 & 3, the program is nearly finished executing, write the necessary commands to return the array to the heap and avoid dangling pointers.

```
int size;  
cout << "How many books will be recorded? ";  
cin >> size;
```

```
1-> string *books = new string[size];
```

```
// Program does stuff
```

```
2-> delete [] books;
```

```
3-> books = NULL;
```

```
return 0;
```

Question 2

- List the three principles of designing recursive algorithms.
Descriptions are not necessary.

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- List the three principles of designing recursive algorithms.
Descriptions are not necessary.
 - No infinite recursion
 - The base case returns the correct value (or does the correct action)
 - If all recursive cases return the correct value (or do the right thing), then the entire function is correct

Question 3

- Define a struct called `Student`. Give it three data members (use at least two different data types)

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- ```
struct Student {
 string name;
 string ID;
 double gpa;
};
```

## Question 4

- Declare an `Album` object and assign values to the data members of the struct (the values don't have to be accurate, but assignments should be correct).



## Question 4

- Declare an Album object and assign values to the data members of the struct (the values don't have to be accurate, but assignments should be correct).
- Student sweeney;  
sweeney.name = "Adam Sweeney";  
sweeney.ID = "a555a555";  
sweeney.gpa = 3.3;