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Pointers II

CS 124 – Intro to Software Development

Macbeth – Lesson 9.2

Agenda

- Opening Prayer
- Spiritual Thought
- Pointer Arithmetic
- MadLib Project
- Looking Ahead

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Spiritual Thought

Elder Dallin H. Oaks

"[B]ecause it is broken and torn, each piece of bread is unique, just as the individuals who partake of it are unique. We all have different sins to repent of. We all have different needs to be strengthened through the Atonement of the Lord Jesus Christ, whom we remember in this ordinance."

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Pointer Quiz

Which of these will give me the address of integer variable x?

A) *x
B) &x
C) int *x
D) int &x

B

Pointer Quiz

Which of these will give me the value stored in address y:

A) &y
B) address(y)
C) *y
D) int &y

C

Pointer Quiz

What is the output of this code:

```
int x = 42;
int *xPtr = &x;
*xPtr = x - *xPtr
cout << x;
```

A) 42
B) -42
C) 0
D) Compiler Error

C

Pointer Quiz

What is the output of this code:

```
int x = 1;
int y = 0;
int *xPtr = &x;
int *yPtr = &y;
xPtr = yPtr;
cout << *xPtr;
```

B

A) 1
B) 0
C) Some strange address number
D) Compiler Error

Pointer Quiz

What is the output of this code:

```
int x = 12;
float *xPtr = &x;
x = 14;
cout << *xPtr;
```

A) 12
B) 14
C) Some strange address number
D) Compiler Error

D

Pointer Quiz

What is the output of this code:

```
int *xPtr = 0;
int x = 7;
cout << x << " " << *xPtr;
```

A) 7 0
B) 7
C) Segmentation Fault
D) Compiler Error

C

Pointer Quiz

What is the output of this code:

```
int data[10] = {2, 4, 6, 8, 10, 12, 14, 16, 18, 20};
cout << *data;
```

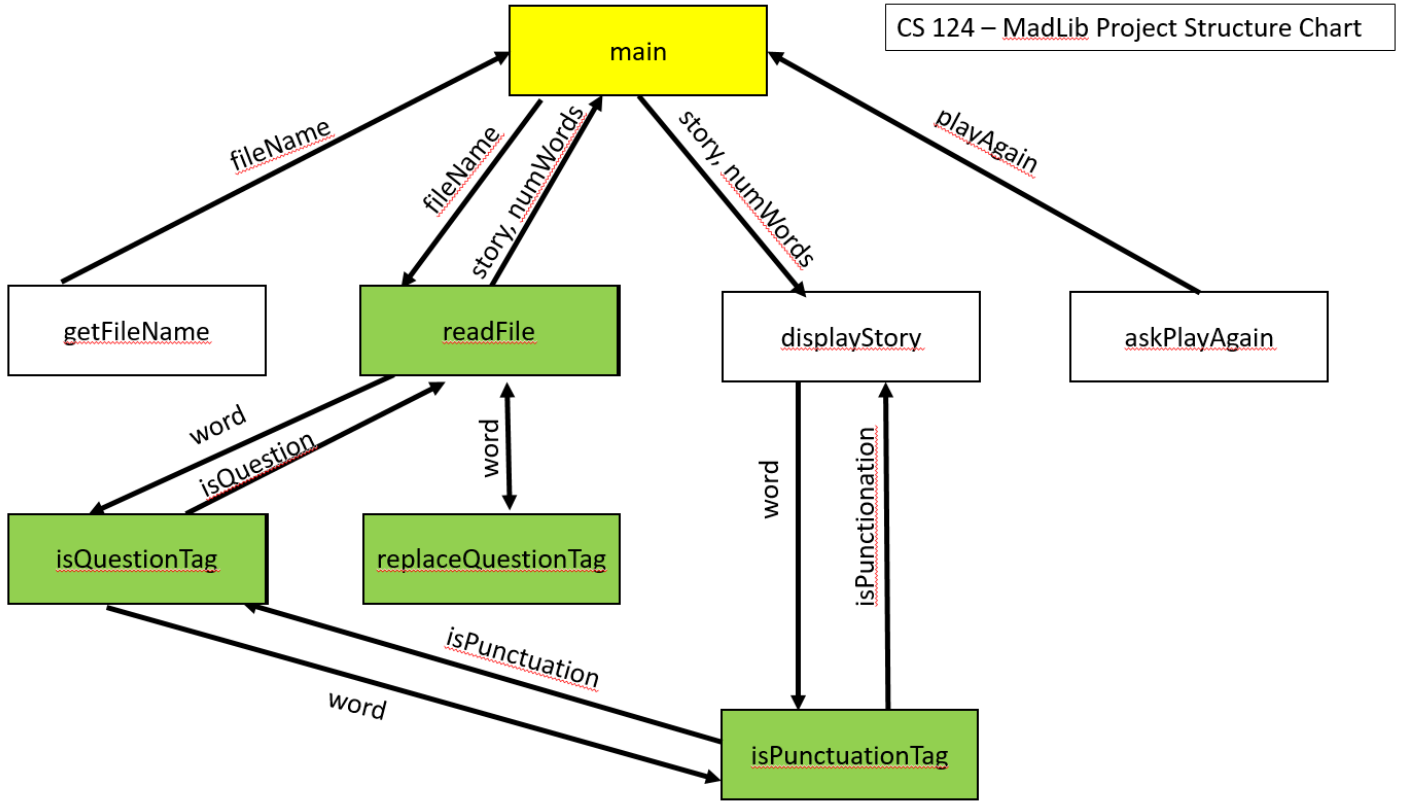
A) 2
B) Segmentation Fault
C) {2, 4, 6, 8, 10, 12, 14, 16, 18, 20}
D) Some strange address number

A

MadLib Project

- Implement the following functions by Saturday (there is a testbed):
  - readFile
  - isQuestionTag
  - isPunctuationTag
  - replaceQuestionTag
  - Enough of the main function to run readFile.

- You should have some of this written by next class. We will be spending part of next class reviewing it.



Looking Forward

- Work on MadLib Code
- Read the textbook chapter shown in I-Learn
- Attempt the next assignment and bring your questions to class. They will be answered either by what we do in class or by you asking a question.