CS 105

Week 15

No Lab Sections Today

CS 105 Final Exam

Wednesday, May 14, 2014
1:30pm – 4:30pm

CS 105 Final Exam Review Session

Reading Day
Tomorrow, Thursday, May 8, 2014
2:00pm – 3:30pm
Location: 100 Greg Hall

```
function foo(var a)
{
    a = a * a;
    return a;
}
```

What does the function `foo()` return?
A) A 2D array of size **a** by **a**
B) An array twice as large as the original
C) An array with all the values doubled
D) The square root of the original value, **a**
E) The square of the original value, **a**

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{
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	1	2	3	4	5
	Chicago	Cubs	NL	1876	A
B	Atlanta	Braves	NL	1871	East
C	San Fran.	Giants	NL	1883	West

Object

A variable that contains related functions and associated data

```
Person:
    FirstName: Wade
    LastName: Fagen
    NetID: waf
```

Object

A variable that contains related functions and associated data

```
var cs105 = ┌─────────────────┐ ;
            │ Person:         │
            │  FirstName: Wade │
            │  LastName: Fagen │
            │  NetID: waf      │
            └─────────────────┘

print(cs105.FirstName);
```

Class

A definition describing the contents of an object.

An object is an instance of a class.

Clicker Review #1

In programming, an object is which of the following:

A) An instance of a class
B) A collection of records in a database
C) A programming language like SQL
D) A special type of function call
E) A special type of an array

Clicker #2

Given the array, `var a = [20, 40, 60, 80, 100]`, which line of code accesses the value 40?

A) a[0]
B) a[1]
C) a[2]
D) a[3]
E) a[4]

[20, 40, 60, 80, 100]

Clicker #2

Given the array, `var a = [20, 40, 60, 80, 100]`, which line of code accesses the value 40?

A) a[0]
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E) a[4]

Clicker #3

Which of the following array(s) can be searched using a linear search?

A) ["apple", "banana", "blackberry", "grape", "kiwi"]

B) ["city", "country", "cow"]

C) ["university", "of", "illinois", "at", "urbana", "champaign"]

D) Both (A) and (B), but not (C)

E) (A), (B), and (C)

Clicker #3

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A) ["apple", "banana", "blackberry", "grape", "kiwi"]

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D) Both (A) and (B), but not (C)

E) (A), (B), and (C)

Clicker #4

In lecture, Prof. Cinda Heeren spoke on visualizing literature. What is the **primary** way visualizations are done in "viz lit"?

A) By using machine learning to learn the story and projecting the events.
B) By using artificial intelligence to project the expected ending.
C) By allowing the user to select her favorite chapter in the book.
D) By using the sentences and words only.

Clicker #4

In lecture, Prof. Cinda Heeren spoke on visualizing literature. What is the **primary** way visualizations are done in "viz lit"?

A) **By using machine learning to learn the story and projecting the events.**
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C) **By allowing the user to select her favorite chapter in the book.**
D) **By using the sentences and words only.**

Scratch

JavaScript

Variables

Variables
Conditionals

Variables
Conditionals
Loops

Variables
Conditionals
Loops
Arrays

Variables
Conditionals
Loops
Arrays
Strings

Variables
Conditionals
Loops
Arrays
Strings
Searching / Sorting

Excel

SUM / AVERAGE / COUNT

SUM / AVERAGE / COUNT
IF

SUM / AVERAGE / COUNT
IF
VLOOKUP

SUM / AVERAGE / COUNT
IF
VLOOKUP
INDEX / MATCH

SUM / AVERAGE / COUNT
IF
VLOOKUP
INDEX / MATCH
Pivot Tables

Special Topics

Special Topics

Internet Security

Special Topics

Internet Security

Databases

Special Topics

Internet Security
Databases
Objects and Classes

Special Topics

Internet Security
Databases
Objects and Classes
Visualizing Lit

Fall 2014: CS 125
Introduction to Computer Science

Spring 2015: "CS 205"
(Possibly CS 198/298 in Sp15)

More review on Wednesday!

Please spend 5 minutes to fill out the ICES form for CS 105!