Quiz - Lecture 20

Due 14 Oct at 23:59

Points 5 Questions 4

Available 13 Oct at 9:10 - 14 Oct at 23:59 1 day

Time limit None

Allowed attempts Unlimited

Take the quiz again

Attempt history

	Attempt	Time	Score
KEPT	Attempt 2	3 minutes	5 out of 5
LATEST	Attempt 2	3 minutes	5 out of 5
	Attempt 1	less than 1 minute	0.36 out of 5

Score for this attempt: 5 out of 5

Submitted 13 Oct at 17:05

This attempt took 3 minutes.

Question 1

Complete the symbol table entries for the parameters and variables in the following **Jack** function:

1 / 1 pts

```
function int blowupstack(int c, int z)
                       var string message ;
                       var int d, a;
                        let c = blowupstack(a,z);
                        return z ;
              The symbol has four columns:
              Identifier, type, segment, offset.
Correct!
                   a, int,
                                                                          local,2
Correct!
                   c, int,
                                                                          argument, 0
Correct!
                   d, int,
                                                                          local,1
Correct!
                  z, int,
                                                                          argument,1
Correct!
                   message, string,
                                                                          local, 0
              Other Incorrect Match Options:
               • argument, 2
               • argument, 3
```

- local, 3
- this, 0
- this, 4
- this, 3
- this, 1
- this, 2
- local, 4
- argument, 4

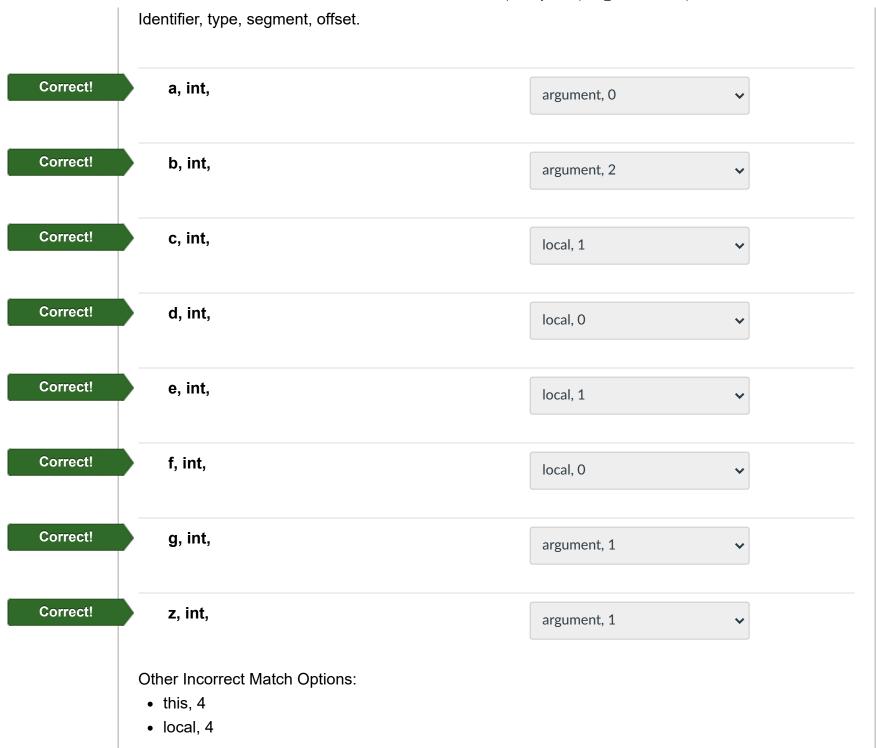
Question 2 1/1 pts

Complete the symbol table entries for the parameters and variables in the following **Jack** methods:

```
class dummy
{
    function int sillyb(int a, int z)
    {
        var int f, c;
        return f + c;
    }

    method int sillya(int g, int b)
    {
        var int d, e;
        return d + e * b;
    }
}
```

The symbol has four columns:



- argument, 3
- this, 2
- this, 1
- this, 3
- this, 0
- local, 2
- argument, 4
- local, 3

Question 3 1/1 pts

Consider the following **Jack** method:

```
method int blowupstack(int a, int z)
{
    var string message ;
    var int d, c ;

    let c = blowupstack(a,z) ;
    return z ;
}
```

What virtual machine code would implement the assignment statement?

push a
push z
call blowupstack 2
рор с
call blowupstack 2
push argument 1
push argument 2
pop local 3
nuch argument 1
push argument 1
push argument 2
call blowupstack 2
pop local 3
• •
call blowupstack 2
push argument 1
push argument 2
pop local 2

Correct!

```
push argument 1
push argument 2
call blowupstack 2

pop local 2

call blowupstack 2
push a
push z

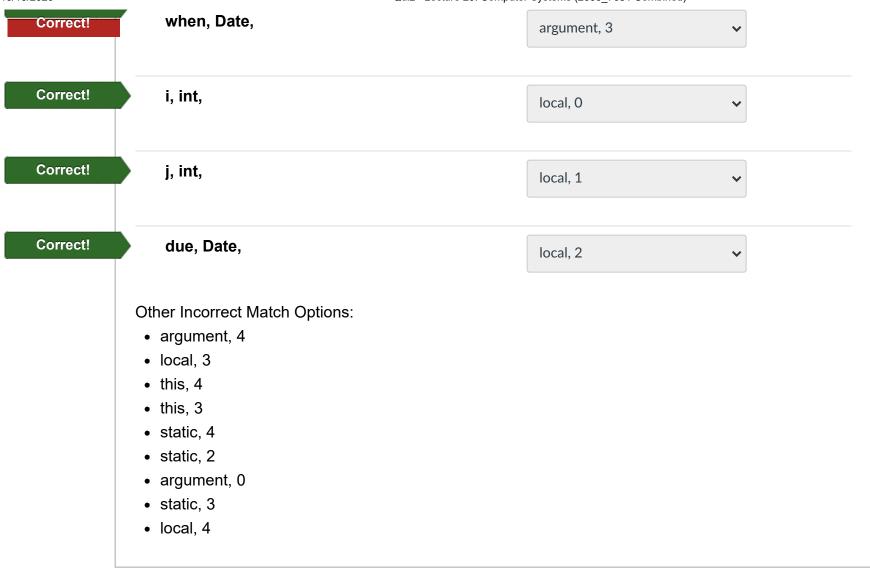
pop c
```

```
Question 4 2 / 2 pts
```

Complete the symbol table entries for the variables and parameters in the following **Jack** class:

```
class BankAccount
{
    static int nAccounts ;
    static int bankCommission ;
    field int id ;
    field int balance ;
    field string owner ;
    method void transfer(int sum, BankAccount from, Date when)
    {
        var int i,j ;
        var Date due;
    }
}
```

```
let balance = (balance + sum) - commission(sum * 5);
              The symbol has four columns:
              Identifier, type, segment, offset.
Correct!
                   nAccounts, int,
                                                                          static, 0
Correct!
                   bankCommission, int,
                                                                          static, 1
Correct!
                   id, int,
                                                                          this, 0
Correct!
                   owner, string,
                                                                          this, 2
Correct!
                   balance, int,
                                                                          this, 1
Correct!
                   sum, int,
                                                                          argument, 1
Correct!
                  from, BankAccount,
                                                                          argument, 2
```



Quiz score: 5 out of 5