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 — 1 / 1 pts

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

```
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:

Identifier, type, segment, offset.

Correct!	**a, int,**	argument, 0
Correct!	**b, int,**	argument, 2
Correct!	**c, int,**	local, 1
Correct!	**d, int,**	local, 0
Correct!	**e, int,**	local, 1
Correct!	**f, int,**	local, 0
Correct!	**g, int,**	argument, 1
Correct!	**z, int,**	argument, 1

Other Incorrect Match Options:

- this, 4
- local, 4

- 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

pop c

---

call blowupstack 2

push argument 1

push argument 2

pop local 3

---

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

Correct!	**when, Date,**	argument, 3
Correct!	**i, int,**	local, 0
Correct!	**j, int,**	local, 1
Correct!	**due, Date,**	local, 2

Other Incorrect Match Options:

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

Quiz score: **5** out of 5