Quiz - Lecture 17

Due 7 Oct at 23:59   **Points** 5   **Questions** 5   **Available** 6 Oct at 9:10 - 7 Oct at 23:59 1 day
Time limit None   **Allowed attempts** Unlimited

Take the quiz again

Attempt history

	Attempt	Time	Score
KEPT	**Attempt 2**	4 minutes	5 out of 5
LATEST	**Attempt 2**	4 minutes	5 out of 5
	Attempt 1	less than 1 minute	0.98 out of 5

Score for this attempt: **5** out of 5
Submitted 6 Oct at 12:11
This attempt took 4 minutes.

Question 1	1 / 1 pts

Which lines of the following Jack class in the file 'CoolClass.jack', contain a syntax error?

```
01 class Broken
02 {
03     int hd ;
```

```
04      field Broken tail ;
05
06      int next()
07      {
08           var Bad x ;
09
10           let x = BadClass.returnsnull(tail) ;
11           return x ;
12      }
13 }
```

☐ 13

☐ 9

☐ 5

☐ 2

☐ 4

Correct! ☑ 1

> The class name must match the filename.

☐ 8

Correct! ☑ 3

> class variables must be prefixed by the keyword 'static' or 'field'.

Correct!

☑ 6

> Functions must be prefixed by the keyword 'constructor', 'function' or 'method'. In this case we are using the field tail so this should be prefixed by 'method'.

☐ 12

☐ 10

☐ 7

☐ 11

Question 2

1 / 1 pts

Why do some of the workshop and programming assignments use XML?

Correct!

☑ It makes testing component programs easy

> We can use a simple program such as diff to check the output produced is the output expected.

☐ To prevent software pipelining

☐ It is the only way to pass complex structures between programs

Correct!　☑ It is easy for humans to read

Correct!　☑ It allows programs to pass an abstract syntax tree to another program using *nix pipes.

☐ XML is used to make sure that the programming is not too easy

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Question 3

1 / 1 pts

Which of the following characters should be replaced by an XML entity when data is stored in an XML representation so that the XML can always be interpreted correctly?

Correct!　☑ greater than (>)

☐ comma (,)

Correct!　☑ double quote (")

Correct!　☑ ampersand (&)

☐ forward slash (/)

☐ equals (=)

Correct!　☑ apostrophe (')

Correct!　☑ less than (<)

☐ newline

Question 4

1 / 1 pts

Your boss has asked you to write compilers for two new programming languages that must be able to run on any one of four new processors. How may compilers might you need to write?

☐ 13

☐ 3

☐ 5

☐ 9

☐ 14

Correct! ☑ 6

☐ 16

Correct! ☑ 8

☐ 7

Correct! ☑ 2

☐ 17

☐ 15

☐ 4

> If you compile directly for each processor, each of the 2 languages will need 4 different compilers, 2 x 4 = 8.
>
> If you compile to an intermediate virtual machine code, each of the 2 languages will need a compiler to the VM code, and then there will need to be a compiler (translator) from VM code to each of the 4 processors, 2 + 4 = 6.
>
> If the VM code compilers has already been implemented for the 4 new processors then you will only need 2 compilers.

Question 5   1 / 1 pts

Align the terms on the left with their descriptions.

Correct! ▶ **Language**   [All strings that can be generated ▾]

Correct! ▶ **Parsing**

Checking if a string could hav ⌄

Correct!   **Grammar**   A set of rules for generating s ⌄

Correct!   **Tokenising**   Breaking input into a stream c ⌄

Other Incorrect Match Options:
- Translating one language into another.
- Constructing a parse tree.

Quiz score: **5** out of 5