

✓ Congratulations! You passed!

Grade received 80% To pass 80% or higher

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1. You wish to store a list of grades for a class. Given the choice between a set and a list, which is the more appropriate data structure?

1 / 1 point

- ☒ List
- ☐ Either would do
- ☐ Set

✓ Correct

Correct. A list will allow you to store repeating instances of data.

2. In relation to data structures what does mutability mean?

1 / 1 point

- ☒ It means that it can be changed after it has been created.
- ☐ It relates to dynamic programming languages, and it can be passed as a variable to a function.
- ☐ It means that once an object is created it cannot be changed.

✓ Correct

That's correct. It relates to the ability to be able to change a value after it has been instantiated.

3. LIFO and FILO mean the same thing?

1 / 1 point

- ☒ True
- ☐ False

✓ Correct

That's correct. FILO (First In Last Out) is another way of saying LIFO (Last in First Out).

4. Creating a class through the use of a capital T as below:

0 / 1 point

`Stack<T>`, is an example of what?

- ☐ Encapsulation
- ☐ Generics

☒ Immutability

 **Incorrect**

Not quite! Immutability relates to the permanence of the object.

5. On what type of data structure would one do a depth first search?

1 / 1 point

☒ Trees

☐ Lists

☐ Stacks

 **Correct**

That's correct. A tree is a series of interconnected nodes that build under one root node. Doing a depth first search, is to follow one branch of nodes to the very deepest one.