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## Exercise: spell

Finger Exercises due Aug 5, 2020 20:30 -03 *Completo*

### Exercise: spell

9/9 points (graded)

**ESTIMATED TIME TO COMPLETE: 12 minutes**

Consider the following code:



```
class Spell(object):
    def __init__(self, incantation, name):
        self.name = name
        self.incantation = incantation

    def __str__(self):
        return self.name + ' ' + self.incantation + '\n' + self.getDescription()

    def getDescription(self):
        return 'No description'

    def execute(self):
        print(self.incantation)

class Accio(Spell):
    def __init__(self):
        Spell.__init__(self, 'Accio', 'Summoning Charm')

class Confundo(Spell):
    def __init__(self):
        Spell.__init__(self, 'Confundo', 'Confundus Charm')

    def getDescription(self):
        return 'Causes the victim to become confused and befuddled.'

def studySpell(spell):
    print(spell)

spell = Accio()
spell.execute()
studySpell(spell)
studySpell(Confundo())
```

1. What are the parent class(es)? Note that the term "parent class" is interchangeable with the term "superclass".



Spell



Accio



Confundo



2. What are the child class(es)? Note that the term "child class" is interchangeable with the term "subclass".



☐ Spell

☒ Accio

☒ Confundo

✓

3. What does the code print out? Try figuring it out in your head before you try running it in Python.

Hint: This code prints out 5 lines. Enter each line that is printed out in its own box, in sequential order.

1.

✓

**Answer:** Accio
2.

✓

**Answer:** Summoning Charm Accio
3.

✓

**Answer:** No description
4.

✓

**Answer:** Confundus Charm Confundo
5.

✓

**Answer:** Causes the victim to become confused and befuddled.



Which `getDescription` method is called when `studySpell(Confundo())` is executed?

- ☐ The `getDescription` method defined within the `Spell` class
- ☐ The `getDescription` method defined within the `Accio` class
- ☒ The `getDescription` method defined within the `Confundo` class

**Explanation:**

The one inside the `Confundo` class is called. Why? Because methods in the child class override those in the parent class if they exist in both classes.

5. How do we need to modify `Accio` so that `print(Accio())` will print the following description?

```
Summoning Charm Accio
This charm summons an object to the caster, potentially over a significant
distance.
```

```
1 class Accio(Spell):
2     def __init__(self):
3         Spell.__init__(self, 'Accio', 'Summoning Charm')
4
5     def getDescription(self):
6         return 'This charm summons an object to the caster, potentially over a si
```

Press ESC then TAB or click outside of the code editor to exit

Correta



```
class Accio(Spell):  
    def __init__(self):  
        Spell.__init__(self, 'Accio', 'Summoning Charm')  
  
    def getDescription(self):  
        return 'This charm summons an object to the caster, potentially over a significant distance.'
```

## Test results

[Hide output](#)**CORRECT**

Test: getDescription

```
s = Accio()  
s.getDescription()
```

Output:

```
This charm summons an object to the caster, potentially over a  
significant distance.
```

[Hide output](#)[Enviar](#)

**i** Answers are displayed within the problem

## Exercise: spell

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