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## Exercise: spell

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### Exercise: spell

9 points possible (graded)

**ESTIMATED TIME TO COMPLETE: 12 minutes**

Consider the following code:




## 9. Classes and Inheritance


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## 10. An Extended

### Example

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### Problem Set 5

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```
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.

2.

3.

4.

5.



4. 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

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
```

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

Unanswered



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