Challenge 2: Handling a Bank Account

In this challenge, you will define methods for handling a bank account using concepts of inheritance.

We'll cover the following

Problem Statement

In this challenge, we will be extending the previous challenge and implementing methods in the *parent class* and its corresponding *child class*.

> The initializers for both classes have been defined for you.

Task 1

In the `Account` class, implement `getBalance()` *method* that **returns** `balance`.

Task 2

In the `Account` class, implement `deposit(amount)` *method* that adds `amount` to the `balance`. It **does not** return anything.

Sample Input

```
balance = 2000
deposit(500)
getbalance()
```

Sample Output

```
2500
```

Task 3

In the `Account` class, implement `withdrawal(amount)` *method* that subtracts the `amount` from the `balance`. It **does not** return anything.

Sample Input

```
balance = 2000
withdrawal(500)
getbalance()
```

Sample Output

```
1500
```

Task 4

In the `SavingsAccount` class, implement a `interestAmount()` *method* that **returns** the interest amount of the **current** balance. Below is the formula for calculating the interest amount:

$$\text{interest amount} = \frac{\text{interest rate x balance}}{100}$$

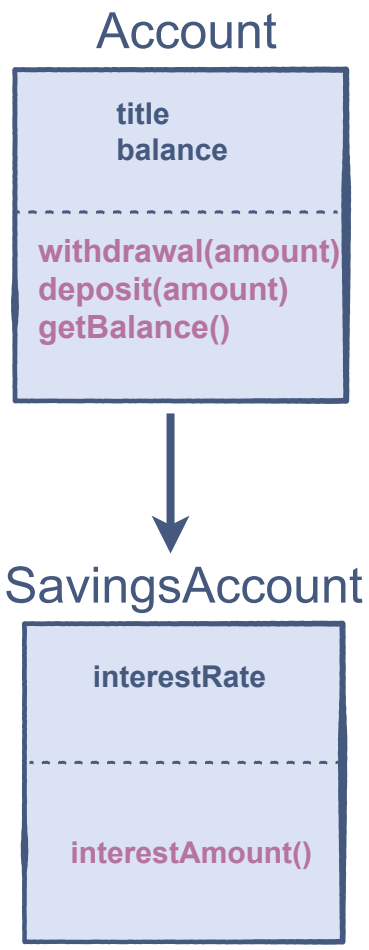
Sample Input

```
balance = 2000
interestRate = 5
interestAmount()
```

Sample Output

```
100
```

The following figure shows what the result should logically look like:



Based and Derived Classes Structure

Coding Exercise

First, take a close look and design a step-by-step algorithm before jumping to the implementation. This problem is designed for your practice, so initially try to solve it on your own. If you get stuck, you can always refer to the solution provided in the solution review.

Good luck!

> **Note:** A new `SavingsClass` object is initialized at the end of the code and test results will base on it.

```
class Account:
    def __init__(self, title=None, balance=0):
        self.title = title
        self.balance = balance

    def withdrawal(self, amount):
        # write code here
        pass
```

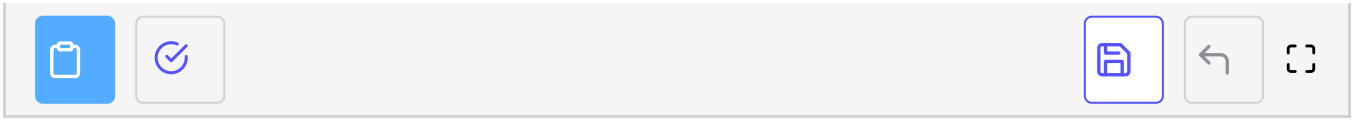
```
    def deposit(self, amount):
        # write code here
        pass

    def getBalance(self):
        # write code here
        pass


class SavingsAccount(Account):
    def __init__(self, title=None, balance=0, interestRate=0):
        super().__init__(title, balance)
        self.interestRate = interestRate

    def interestAmount(self):
        # write code here
        pass


# code to test - do not edit this
demo1 = SavingsAccount("Mark", 2000, 5)  # initializing a SavingsAccount object
```



The solution will be explained in the next lesson.