

Challenge 2: Displaying Message Using Inheritance

In this challenge, can you extend a parent class with one function overridden for each child?

We'll cover the following ^

- Problem statement
- Coding exercise
- Example

Problem statement

Whenever you visit a zoo, there are many types of animals in it. However, for each animal some things never change- they all have a name and an age. Also a country of origin. This time, we want you to use the concept of classes and inheritance to solve the exercise below!

Coding exercise

The code below has:

- A **parent class** named `Animal`.
 - Inside it *define*:
 - `name`
 - `age`
 - `set_value(int a,string b)`:
 - sets `age` and `name` parameters and to the given values.
 - `default constructor`
- Then there are **two derived classes**
 - `Zebra`
 - `Dolphin`
- The **derived classes** should

- Return a string containing a *message* telling the **age** and the **name** as well as information about *place* of **origin** of that *animal*.
 - **Hint:** You have to create **two** *separate message functions* for both the **base** classes.

Example

- The **animal_type** named **name** is **age** years old. The **animal_type** comes from **origin**.
- If we have an animal of class **Zebra**, whose name is **Z** with age, **2** and the country name **Africa**. The output should be as follows:

The zebra named Z is 2 years old. The zebra comes from Africa

Only write the code where instructed in the snippet below.

Test your code against our cases and see if you can pass them.

The solution is given in case you get stuck and the next lesson will include a review of the solution, but it is highly recommended that you try it yourself first!

Good Luck!

```
class Animal {  
  
    //declare private members here  
  
    void set_data(int a, String b) {  
        //initialize members here  
    }  
  
    //implement getters here  
  
}  
  
//define derived class named "Zebra" here  
class Zebra extends Animal {  
    String message_zebra(String str) {  
        //define here  
        str = "No code added yet"; //update this when you write your code  
        return str;  
    }  
}  
  
//define derived class named "Dolphin" here  
  
class Dolphin extends Animal {  
    String message_dolphin(String str) {
```

```
    //define here  
    str = "No code added yet"; //update this when you write your code  
    return str;  
}  
}
```



Let's go over the solution review in the upcoming lesson.