Challenge 2: Implement an Animal Class

In this challenge, we'll implement a base class Animal and two derived classes Sheeps and Dogs.

WE'LL COVER THE FOLLOWING

Problem Statement

The code below has:

- A **parent** *class* named `Animal`.
  - Inside it *define*:
    - `Name`
    - `Sound`
    - `void Animal_Details()` function:
      - It prints the name and sound of the `Animal`.
- Then there are **two derived** *classes*
  - `Dogs` class
    - has a *private* member `family`
    - has a function named `Dog_detail()` which prints detail of the dog
  - `Sheeps` class
    - has a *private* member `color`

        - has a function named `Sheep_detail()` which prints detail of the Sheep
- The **derived classes** should
    - call the method of the `Animal` class which prints the `name` and the `sound` and for `Dogs` class prints the *family* of dog that is **Carnivores** and for `Sheeps` class prints the *color* of sheep **White**.

Input

- `Name` of `Dog` is set to **Pongo** and the `Sound` is set to **woof woof** in parametrized constructor of `Dogs` object
- `Name` of `Sheep` is set to **Billy** and the `Sound` is set to **baaa baaa** in parametrized constructor of `Sheeps` object
- Now, print `Dog_detail` and `Sheep_detail` from their respective objects

Here's a sample result which you should get.

Sample Input

```
Dogs d("Pongo", "Woof Woof");
d.Dog_detail();
Sheeps s("Billy", "Baaa Baaa");
s.Sheep_detail();
```

Sample Output

```
Animal Name : Pongo
Animal Sound : Woof Woof
Dog's Family : Carnivores

Animal Name : Billy
Animal Sound : Baaa Baaa
Sheep Color: White
```

Coding Exercise

Implement the code in the **problem** tab.

Good Luck!

Problem | Solution

```
#include <iostream>
using namespace std;

// Write classes code here

int main() {
  // Make classes objects here
}
```

Show Hint

Solution Review

- We have implemented `Animal` class which have **Name** and **Sound** variables, and a function **Animal_detail()** which prints *Name* and *Sound* of animal
- Now implement `Dogs` and `Sheeps` classes inherited publicly from `Animal` class
- `Sheeps` has private string **color** variable and a function **Sheep_detail()** which calls **Animal_detail()** function and prints *color* of the sheep
- `Dogs` has private string **family** variable and a function **Sheep_detail()** which calls **Animal_detail()** function and prints *family* of the sheep
- Create Dog and sheep object by calling parametrized constructors of the classes and print their traits by calling their respective functions

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In the next challenge, we'll solve another exercise to get more grip on inheritance.