



Module 2: Inheritance Assignment

Problem Statement:

You work in XYZ Corporation as a Data Analyst. Your corporation has told you to work with the inheritance of the classes.

Tasks To Be Performed:

1. Create a class named `parent_Class` and inside the class, initialize a global variable `num` as 10
 - a. Create another class named `child_Class` and this class should be inherited from the parent class.
 - b. Now create an object for the `child_Class` and with the help of `child_Class` object, display the value of '`num`'.
2. Create three classes named A, B and C
 - a. Inside the A class, create a constructor. Inside the constructor, initialize 2 global variables `name` and `age`.
 - b. After initializing the global variables inside the constructor, now create a function named '`details`' and that function should return the '`name`' variable.
 - c. Inside the B class, create a constructor. Inside the constructor, initialize 2 global variables `name` and `id`.
 - d. After initializing the global variables inside the constructor, now create a function named '`details`' and that function should return the '`name`' variable.
 - e. The C class should inherit from class A, and B. Inside the class C, create a constructor, and inside the constructor, call the constructor of class A.
 - f. Now, create a method inside the class C, as `get_details`, and this function should return the value of `name`.
 - g. At last, create an object of class C, and with the help of the object, call the `get_details()`.
3. Create a class named '`Sub1`', inside the class, generate a user defined function named '`first`' and inside the function, pass the following statement in the `print()`- '`This is the first function from Sub 1 class`'.
 - a. Now create another class named '`Sub2`', and inside the class, create a function named '`second`', and pass the following message in the `print()`- '`This is the second function from the Sub 2 class`'.

- b. After that, create another class named 'Super' and inside that class, create a method named 'final', and pass the below message in the print()- 'This is the final method from the super class'.
 - c. Now, create an object for the Super class and call all the 3 user defined methods, i.e., first(), second(), and final().
4. Create a class named 'Parent', and inside the class, create a function named 'fun1' and pass the following message in the print()- 'This is the message from the fun1'.
 - a. Now create a class named 'Child1' and inside the class, create a method named 'fun2' and pass the following message in the print()- 'This is the message from the fun2'.
 - b. After that, create another class named 'Child2' and inside the class, create a method named 'fun3' and pass the following message in the print()- 'This is the message from the fun3'.
 - c. Now, create an object of Child2 class and with the help of the object, call the 'fun1' method from the 'Parent' class.
5. Create a class named 'Parent', and inside the class, create a function named 'fun1' and pass the following message in the print()- 'This is the message from the fun1'.
 - a. Now create a class named 'Child' and inside the class, create a method named 'fun2' and pass the following message in the print()- 'This is the message from the fun2'.
 - b. After that, create another class named 'Hybrid' and inside the class, create a method named 'fun3' and pass the following message in the print()- 'This is the message from the fun3'.
 - c. Now create an object of Hybrid class and with the help of the object, call the 'fun1', 'fun2' and 'fun3' methods.