Project 5

There is a generic Student class. Create two types of students -- a child class Engineer and a child class Medical.

1. Create a Python class **Student** with attributes: **name** and **age** of type string.
2. Create a **display()** method that displays the name and age of an object created via the Student class.
3. Create **children's classes Engineer and Doctor** which **inherit** from the student class. An engineer also has a **courses** attribute and doctor has a hospital attribute.
4. Create **methods displayEngineer() and displayDoctor** that displays the name, age, and courses or hospital of an object created via the children classes.
5. Create an **engineer and doctor objects** via an instantiation on the engineer and doctor classes and then test the displayEngineer and displayDoctor methods.

Step 1: Create a class file and create the Student class. Initialize theStudent class by passing the following parameters: self, name, and age. The object's name and age will be from the input of the user which will be declared in the main function of the main file.

Step 2: Create a method called display. This method will take the classes' name and age and return them in a f string that reads the student's name and age.

Step 3: Create an Engineer class. Initialize the Engineer class by passing in the Student class. This will make the Engineer class inherit the methods from the Student class. Initialize the Engineer class by passing the following parameters: self, name, age, courses. Make sure to attach the parent class by calling super and initiating it with the name, and age variables. The object's name, age, and courses will be from the input of the user which will be declared in the main function of the main file.

Step 4: Create a method called displayEngineer. This method will take the classes' name, age, and course/s and return them in a f string that reads the student's name, age, and course/s.

Step 5: Create a Medical class. Initialize the Medical class by passing in the Student class. This will make the Medical class inherit the methods from the Student class. Initialize the Medical class by passing the following parameters: self, name, age, hospital. Make sure to attach the parent class by calling super and initiating it with the name, and age variables. The object's name, age, and hospital will be from the input of the user which will be declared in the main function of the main file.

Step 6: Create a method called displayDoctor. This method will take the classes' name, age, and hospital and return them in a f string that reads the student's name, age, and hospital.

Step 7: create a main file. Import the following classes on top of the file: Student, Engineer, and Medical. Then, create a main function. Inside this function, create a variable named generic that will instantiate the Student class. In here, pass in a string name, and a string age. Another option would be to ask for the user's input, but it is not required for the assignment in this case. Then, print the result of calling the display method from the Student class which is saved in the generic variable.

Step 8: Inside the main function, create a variable named engineer that will instantiate the Engineer class. In here, pass in a string name, and a string age, and string course. Another option would be to ask for the user's input, but it is not required for the assignment in this case. Then, print the result of calling the displayEngineer method from the Engineer class which is saved in the engineer variable.

Step 9: Inside the main function, create a variable named medical that will instantiate the Medical class. In here, pass in a string name, and a string age, and string hospital. Another option would be to ask for the user's input, but it is not required for the assignment in this case. Then, print the result of calling the displayDoctor method from the Medical class which is saved in the medical variable.

Step 10:: Call the main func to initialize the program. Make sure that the Student, Engineer, and Medical classes are imported from the file classes.