Lab Task: 1

Create a Python program to model a university course registration system:

1). Implement a parent class called Course with attributes course_code and course_name. Include a method display_info to display the course code and name.

2). Create two child classes UndergraduateCourse and GraduateCourse inheriting from Course. Each should have an additional attribute (year_level for UndergraduateCourse and research_area for GraduateCourse) and a method additional_info to display the additional attributes.

3). Implement a function register_course that takes user input to register a course. The user should input the course code, course name, year level (for undergraduate courses), or research area (for graduate courses).

Answer:

```
def __init__(self, c_code, c_name):
    self.course_code = c_code
     self.course_name = c_name

def display_information(self):
    print("Course Code: " + self.course_code)
    print("Course Name: " + self.course_name)
def __init__(self, c_code, c_name, year):
    super(UnderGraduateCourse, self).init(c_code,c_name)
    self.year = year
def additional_information(self):
    print("Year Level: " + self.year)
def __init__(self, c_code, c_name, r_area):
    super(PostGraduateCourse, self).__init__(c_code, c_name)
    self.research_area = r_area

def additional_information(self):
    print("Research Area: " + str(self.research_area))
c_type = input("Input course type (undergraduate/postgraduate): ")
c_code = input("Input course code:")
c_name = input("Input course name:")
c_type = c_type.lower()
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if c_type == "undergraduate":
    year = input("Input year level i.e. 1,2,3,4: ")
    course = UnderGraduateCourse(c_code, c_name, year)
elif c_type == "postgraduate":
    area = input("Input research area: ")
    course = PostGraduateCourse(c_code, c_name, area)
else:
    print("Course Type Incorrect, Please type graduate/undergraduate")
    return None

course.display_information()
course.additional_information()
```