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Section: 2A

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Task = 06

**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).

class Course:

    def \_\_init\_\_(self, course\_code, course\_name):

        self.course\_code = course\_code

        self.course\_name = course\_name

    def display\_info(self):

        print(f"Course Code: {self.course\_code}")

        print(f"Course Name: {self.course\_name}")

class UndergraduateCourse(Course):

    def \_\_init\_\_(self, course\_code, course\_name, year\_level):

        super().\_\_init\_\_(course\_code, course\_name)

        self.year\_level = year\_level

    def additional\_info(self):

        print(f"Year Level: {self.year\_level}")

class GraduateCourse(Course):

    def \_\_init\_\_(self, course\_code, course\_name, research\_area):

        super().\_\_init\_\_(course\_code, course\_name)

        self.research\_area = research\_area

    def additional\_info(self):

        print(f"Research Area: {self.research\_area}")

def register\_course():

    course\_type = input("Enter course type (undergraduate/graduate): ").strip().lower()

    course\_code = input("Enter course code: ")

    course\_name = input("Enter course name: ")

    if course\_type == "undergraduate":

        year\_level = input("Enter year level: ")

        course = UndergraduateCourse(course\_code, course\_name, year\_level)

    elif course\_type == "graduate":

        research\_area = input("Enter research area: ")

        course = GraduateCourse(course\_code, course\_name, research\_area)

    else:

        print("Invalid course type.")

        return

    course.display\_info()

    course.additional\_info()

register\_course()