```python
# Question 1: (5 Marks)
"""
Build a program to manage a university's course catalog. You want to define a base class
Course that has the following properties:
course_code: a string representing the course code (e.g., "CS101")
course_name: a string representing the course name (e.g., "Introduction to Computer
Science")
credit_hours: an integer representing the credit hours for the course (e.g., 3)
You also want to define two subclasses CoreCourse and ElectiveCourse, which inherit from
the Course class.
CoreCourse should have an additional property required_for_major which is a boolean
representing whether the course is required for a particular major.
ElectiveCourse should have an additional property elective_type which is a string
representing the type of elective (e.g., "general", "technical", "Liberal arts").
"""


class Course:
    def __init__(self,course_code,course_name,credit_hours):
        self.course_code = course_code
        self.course_name = course_name
        self.credit_hours = credit_hours


    def display(self):
        print(f"course_code: {self.course_code}\ncourse_name:
{self.course_name}\ncredit_hours: {self.credit_hours}")
class CoreCourse(Course):
    def __init__(self, course_code, course_name, credit_hours, required_for_major):
        super().__init__(course_code, course_name, credit_hours)
        self.required_for_major = required_for_major


    def display(self):
        super().display()
        print("required_for_major:",self.required_for_major,"\n")



class ElectiveCourse(Course):
    def __init__(self, course_code, course_name, credit_hours, elective_type):
        super().__init__(course_code, course_name, credit_hours)
        self.elective_type = elective_type


    def display(self):
        super().display()
        print("elective_type:",self.elective_type,"\n")



CoreCourse_1= CoreCourse("CS101", "Introduction to Computer Science", 3, True)
ElectiveCourse_1 = ElectiveCourse("CS300", "Artificial Intelligence", 2, "Technical")
```

```python
CoreCourse_1.display()
ElectiveCourse_1.display()
```

OUTPUT:

```
 course_code: CS101
 course_name: Introduction to Computer Science
 credit_hours: 3
 required_for_major: True


 course_code: CS300
 course_name: Artificial Intelligence
 credit_hours: 2
 elective_type: Technical


 Process finished with exit code 0
```

Question 2: (5 Marks)
```python
"""
Create a Python module named employee that contains a class Employee with attributes
name, salary
and methods get_name() and get_salary().
Write a program to use this module to create an object of the Employee class and display
its name and salary.
"""


import employee
emp= employee.Employee("Ananyaa", 50000)
emp.get_name()
emp.get_salary()
```

another file:employee.py

```python
class Employee:

    def __init__(self,name,salary):
        self.name=name
        self.salary=salary
    def get_name(self):
        print("Name:",self.name)
```

```python
    def get_salary(self):
        print("Salary:",self.salary)
```

🐍 employee.py ×

```python
1 usage
class Employee:

    def __init__(self,name,salary):
        self.name=name
        self.salary=salary
    2 usages (1 dynamic)
    def get_name(self):
        print("Name:",self.name)


    2 usages (1 dynamic)
    def get_salary(self):
        print("Salary:",self.salary)
```

OUTPUT :

```
Name: Ananyaa
Salary: 50000

Process finished with exit code 0
```