

Course Catalog and Employee × Online Python Compiler - online × +

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main.py

1 # Question 1

2 class Course:

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

4 self.course\_code = course\_code

5 self.course\_name = course\_name

6 self.credit\_hours = credit\_hours

7

8 def \_\_str\_\_(self):

9 return f"Course Code: {self.course\_code}, Course Name: {self.course\_name}, Credit Hours: {self.credit\_hours}"

10

11 class CoreCourse(Course):

12 def \_\_init\_\_(self, course\_code, course\_name, credit\_hours, required\_for\_major):

13 super().\_\_init\_\_(course\_code, course\_name, credit\_hours)

14 self.required\_for\_major = required\_for\_major

15

16 def \_\_str\_\_(self):

17 return f"{super().\_\_str\_\_()}, Required for Major: {self.required\_for\_major}"

18

19 class ElectiveCourse(Course):

20 def \_\_init\_\_(self, course\_code, course\_name, credit\_hours, elective\_type):

21 super().\_\_init\_\_(course\_code, course\_name, credit\_hours)

22 self.elective\_type = elective\_type

23

24 def \_\_str\_\_(self):

25 return f"{super().\_\_str\_\_()}, Elective Type: {self.elective\_type}"

26

27 # Creating 5 course instances

28 courses = [

29 CoreCourse("CS101", "Introduction to Computer Science", 3, True),

30 ElectiveCourse("MATH201", "Calculus II", 4, "general"),

31 CoreCourse("CS102", "Data Structures", 3, True),

32 ElectiveCourse("BIO150", "General Biology", 3, "liberal arts"),

33 CoreCourse("CS201", "Algorithms", 3, True)

34 ]

35

input

University Course Catalog:

Course Code: CS101, Course Name: Introduction to Computer Science, Credit Hours: 3, Required for Major: True

Course Code: MATH201, Course Name: Calculus II, Credit Hours: 4, Elective Type: general

Course Code: CS102, Course Name: Data Structures, Credit Hours: 3, Required for Major: True

Course Code: BIO150, Course Name: General Biology, Credit Hours: 3, Elective Type: liberal arts

Course Code: CS201, Course Name: Algorithms, Credit Hours: 3, Required for Major: True

Employee Details:

Name: Alice, Salary: 55000

Name: Bob, Salary: 60000

Name: Charlie, Salary: 45000

Name: David, Salary: 70000

Name: Eva, Salary: 65000

...Program finished with exit code 0

Press ENTER to exit console.

Search

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main.py

```
37 print("University Course Catalog:")
38 for course in courses:
39     print(course)
40
41 # Question 2
42 # employee.py
43 class Employee:
44     def __init__(self, name, salary):
45         self.name = name
46         self.salary = salary
47
48     def get_name(self):
49         return self.name
50
51     def get_salary(self):
52         return self.salary
53
54     def __str__(self):
55         return f"Name: {self.get_name()}, Salary: {self.get_salary()}"
56
57 # Creating 5 employee objects
58 employees = [
59     Employee("Alice", 55000),
60     Employee("Bob", 60000),
61     Employee("Charlie", 45000),
62     Employee("David", 70000),
63     Employee("Eva", 65000)
64 ]
65
66 # Printing employee details
67 print("\nEmployee Details:")
68 for emp in employees:
69     print(emp)
70
```

input

```
University Course Catalog:
Course Code: CS101, Course Name: Introduction to Computer Science
, Credit Hours: 3, Required for Major: True
Course Code: MATH201, Course Name: Calculus II, Credit Hours: 4,
Elective Type: general
Course Code: CS102, Course Name: Data Structures, Credit Hours: 3
, Required for Major: True
Course Code: BIO150, Course Name: General Biology, Credit Hours:
3, Elective Type: liberal arts
Course Code: CS201, Course Name: Algorithms, Credit Hours: 3, Req
quired for Major: True

Employee Details:
Name: Alice, Salary: 55000
Name: Bob, Salary: 60000
Name: Charlie, Salary: 45000
Name: David, Salary: 70000
Name: Eva, Salary: 65000

...Program finished with exit code 0
Press ENTER to exit console.
```

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