

```
In [1]: class User:
    def __init__(self, user_id, name, email):
        self.user_id = user_id
        self.name = name
        self.email = email

    def login(self):
        return f"{self.name} logged in."

class Teacher(User):
    def __init__(self, user_id, name, email):
        super().__init__(user_id, name, email)
        self.courses_created = []

    def create_course(self, course_name):
        self.courses_created.append(course_name)
        print(f"Teacher {self.name} created course: {course_name}")

    def login(self):
        return f"Teacher {self.name} has logged in with admin privileges."

class Student(User):
    def __init__(self, user_id, name, email):
        super().__init__(user_id, name, email)
        self.enrolled_courses = []

    def enroll_course(self, course_name):
        self.enrolled_courses.append(course_name)
        print(f"Student {self.name} enrolled in: {course_name}")

    def login(self):
        return f"Student {self.name} has logged in to the portal."

teacher = Teacher("T101", "Alice", "alice@school.com")
student = Student("S202", "Bob", "bob@student.com")

print(teacher.login())    # Overridden method
print(student.login())    # Overridden method

teacher.create_course("Python Programming")
teacher.create_course("Data Structures")

student.enroll_course("Python Programming")

print("\nCourses created by teacher:", teacher.courses_created)
print("Courses enrolled by student:", student.enrolled_courses)
```

Teacher Alice has logged in with admin privileges.
 Student Bob has logged in to the portal.
 Teacher Alice created course: Python Programming
 Teacher Alice created course: Data Structures
 Student Bob enrolled in: Python Programming

Courses created by teacher: ['Python Programming', 'Data Structures']
 Courses enrolled by student: ['Python Programming']

In []: