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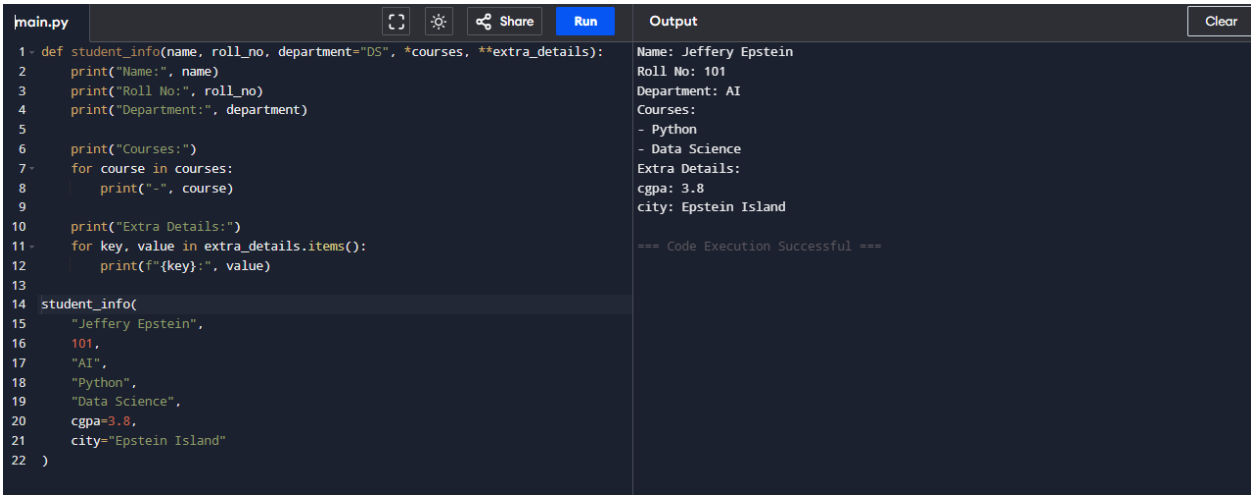
Task #2: Artificial Intelligence Lab

Q1. Write a function student_info that accepts: □ name (positional) □ roll_no (positional) □ department (default = "DS") □ courses (*args) → any number of courses □ extra_details (**kwargs) → any extra info (e.g. cgpa, city)



Q2. Write a small program containing:

1. A global variable total_students = 120

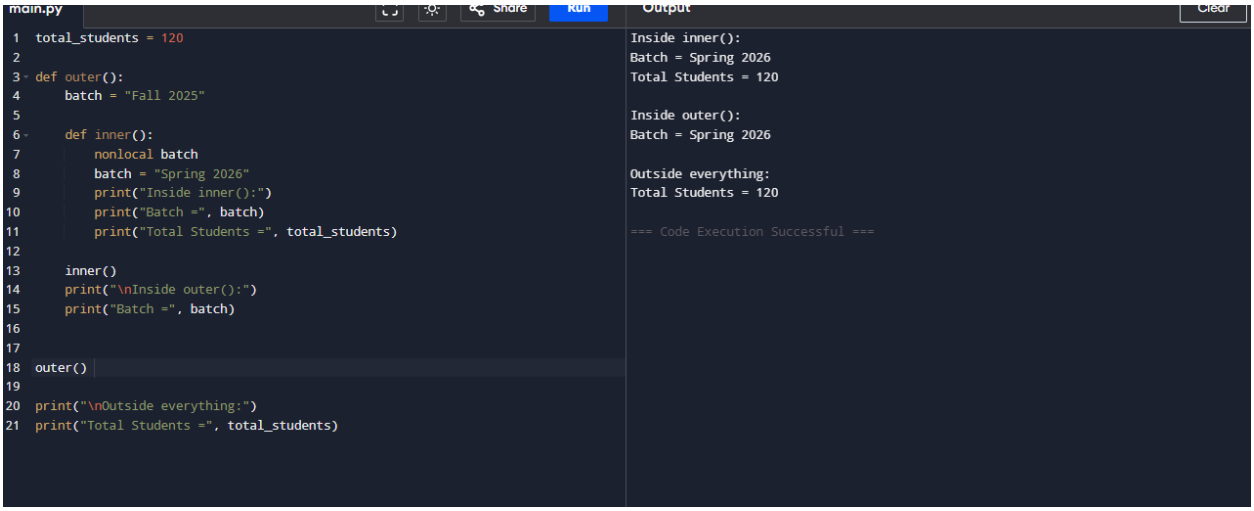
2. A function outer() that has a local variable batch = "Fall 2025"

3. Inside outer(), define a nested function inner() that uses the nonlocal

keyword to modify batch

4. Show three print() statements inside inner(), outer() and outside

everything to prove which value is visible/updated where.



Q3. Design a class LibraryBook that represents one book in a university library.

Requirements:

 Attributes (choose access level wisely):

o title (public)

o author (public)

o isbn (private)

o is_borrowed (protected, default False)

o borrowed_by (protected, default None)

main.py

Share Run

```python
class LibraryBook:

    def __init__(self, title, author, isbn):
        self.title = title
        self.author = author

        self.__isbn = isbn

        self._is_borrowed = False
        self._borrowed_by = None

    def borrow_book(self, student_name):
        if not self._is_borrowed:
            self._is_borrowed = True
            self._borrowed_by = student_name
            print(f"{self.title} has been borrowed by {student_name}.")
        else:
            print("Book is already borrowed.")

    def return_book(self):
        if self._is_borrowed:
            print(f"{self.title} has been returned.")
            self._is_borrowed = False
            self._borrowed_by = None
        else:
            print("Book was not borrowed.")
    def get_isbn(self):
        return self.__isbn

book1 = LibraryBook("Epstein Files", "Jeffery Epstein", "123-456-789")

print("Title:", book1.title)
print("Author:", book1.author)
print("ISBN:", book1.get_isbn())

book1.borrow_book("Rasikh Ali")
```

Output

```
Title: Epstein Files
Author: Jeffery Epstein
ISBN: 123-456-789
Epstein Files has been borrowed by Rasikh Ali.
Epstein Files has been returned.

=== Code Execution Successful ===
```
