ISM 370

Module 2 Project

Project Name	Bookstore Inventory Management
Project Due Date	Sunday by 11:59pm

Objectives

- Practice working with for loops and dictionaries.
- Perform basic calculations and manipulate data.

Instructions

1. Initialize Book Inventory:
   - Create a dictionary of dictionaries to store book information. The information for each book should be a unique id number as the key in the main dictionary with an inner dictionary as the value, with title, quantity, and price as keys in the inner dictionary. There should be corresponding values for the inner dictionary as well.
   - Include at least 3 books in the inventory. Here is an example entry:

```
books_inventory = {
  'isbn001': {'title': 'Python Programming', 'quantity': 100, 'price': 29.99}
  }
```

2. Simulate Sales:
   - Use a for loop and the range() function as the sequence to loop through the dictionary 5 times.
   - Simulate sales by decrementing the quantity of each book by 5.

3. Simulate Restocking:
   - Use a for loop and the range() function as the sequence to loop through the dictionary 3 times.
   - Simulate restocking by incrementing the quantity of each book by 5.

4. Display Updated Book Inventory:
   - Use a for loop and labelling to display the updated book inventory after both sales and restocking have been completed. Example output for one book might look like this:

```
ID: isbn001
Title: Python Programming
Price: $29.99
Quantity in stock: 90
```

Optional Enhancement

- Calculate the total revenue earned for sales each book. Display the revenue with the updated book inventory display.

- Add a purchase price key and value in the dictionary for each book. Calculate and display the profit generated from the sales of the books.
- Instead of for loops to process sales and restocking automatically for the books, use a menu and inputs to determine which books are sold restocked and to get the quantity sold or ordered.
- Include an automatic criterion for determining when to restock a book. If the quantity gets below 10, have the system trigger and simulate a restocking of 50 books.

Grading Criteria

1. This project will be graded on an A*-F* scale (see the syllabus for details). To get high marks on this project, you must complete all requirements and have the project function perfectly.

Deliverable

Submit your project .py file on Canvas.