Question 1 (*20 marks*)

You are given a dataset named ***marks.txt***, which contains information about student marks in the Computer Science subject, and your goal is to perform various operations to analyze and manipulate the data.

```
StudentID,Name,Mark
101,John Smith,72
102,Jane Doe,78
103,Bob Johnson,74
104,Alice Brown,66
105,Charlie Green,75
106,Emily White,92
107,David Taylor,72
```

Diagram 1: *A portion of marks.txt*

You are required to do the following tasks:

1. Calculate and display the average of the marks in the Computer Science subject.
2. Those who scored 95 or above will be awarded. Create a new file named ***awarded.txt*** that contains the awarded students' information.
3. Create a new file named ***grade.txt*** that adds a new column named "Grade". The "Grade" column will contain a grade based on the student's mark, as referred to in Table 1 below.

Marks	Grade
90 and above	A
70 to 89	B
50 to 69	C
Below 50	F

Table 1: Grades based on marks.

Question 2 (*20 marks*)

You are tasked with creating a Python program for a local library to digitally manage its book inventory. The library has provided you with a text file named ***library_inventory.txt***. Each line in the file represents a book and contains the following information: *title*, *author*, *genre*, and *quantity available*.

```
Title: The Great Gatsby
Author: F. Scott Fitzgerald
Genre: Fiction
Quantity: 15

Title: To Kill a Mockingbird
Author: Harper Lee
Genre: Fiction
Quantity: 10

Title: 1984
Author: George Orwell
Genre: Science Fiction
Quantity: 8

Title: Pride and Prejudice
Author: Jane Austen
Genre: Romance
Quantity: 12
```

Diagram 2: *A portion of library_inventory.txt*

Your program should be able to perform the following operations:

1. **Display Information**: Read the ***library_inventory.txt*** file and display the information about all the books currently in the library.
2. **Search for a Book**: Allow the user to search for a specific book by its title and display its details if found.
3. **Add New Book**: Allow the librarian to add a new book to the inventory. The librarian should input the title, author, genre, and quantity, and this information should be appended to the existing ***library_inventory.txt*** file.
4. **Update Quantity**: Provide an option to update the quantity of a specific book. The librarian should input the title and the new quantity, and the program should update the ***library_inventory.txt*** file accordingly. Note that if the specified book is not found, an error message should be displayed.