***3) Write a python program for N books.***

***CODE :-***

class Library:

def \_\_init\_\_(self):

self.books = []

def add\_book(self, title, author, cost):

self.books.append({'title': title, 'author': author, 'cost': cost})

def delete\_duplicates(self):

seen = set()

unique\_books = []

for book in self.books:

book\_tuple = (book['title'], book['author'], book['cost'])

if book\_tuple not in seen:

seen.add(book\_tuple)

unique\_books.append(book)

self.books = unique\_books

def display\_books\_sorted(self):

sorted\_books = sorted(self.books, key=lambda x: x['cost'])

for book in sorted\_books:

print(f"Title: {book['title']}, Author: {book['author']}, Cost: {book['cost']}")

def count\_books\_above\_cost(self, threshold=500):

count = sum(1 for book in self.books if book['cost'] > threshold)

return count

def copy\_books\_below\_cost(self, threshold=500):

return [book for book in self.books if book['cost'] < threshold]

library = Library()

library.add\_book("Book A", "Author A", 300)

library.add\_book("Book B", "Author B", 600)

library.add\_book("Book C", "Author C", 450)

library.add\_book("Book A", "Author A", 300) # Duplicate entry

library.add\_book("Book D", "Author D", 700)

library.delete\_duplicates()

print("Books after deleting duplicates:")

library.display\_books\_sorted()

print("\nBooks sorted by cost:")

library.display\_books\_sorted()

count\_above\_500 = library.count\_books\_above\_cost()

print(f"\nNumber of books with cost more than 500: {count\_above\_500}")

books\_below\_500 = library.copy\_books\_below\_cost()

print("\nBooks with cost less than 500:")

for book in books\_below\_500:

print(f"Title: {book['title']}, Author: {book['author']}, Cost: {book['cost']}")

***OUTPUT :-***

