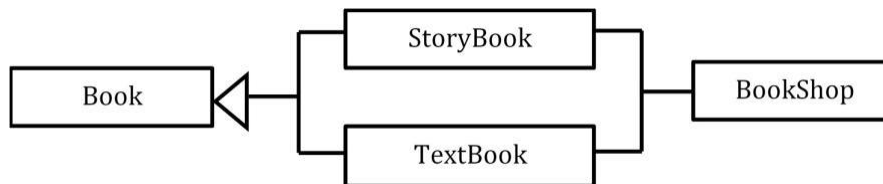**Course Title:** Object Oriented Programming 2 (C#)

Lab Task : Developing a basic C# program with Association.

Look at the following class diagram and class notations carefully, and develop the program.

Class Diagram

Book
String isbn String bookTitle String authorName double price int availableQuantity
Book( ) Book(String isbn, String bookTitle, String authorName, double price, int availableQuantity) void setIsbn(String isbn) void setBookTitle(String bookTitle) void setAuthorName(String authorName) void setPrice(double price) void setAvaiableQuantity(int availableQuantity) String getIsbn( ) String getBookTitle( ) String getAuthorName( ) double getPrice( ) int getAvailableQuantity( ) void addQuantity(int amount) void sellQuantity(int amount) void showDetails( )

StoryBook
String category
StoryBook( ) StoryBook(String isbn, String bookTitle, String authorName, double price, int availableQuantity, String category) void setCategory(String category) String getCategory( )

TextBook
int standard
TextBook( ) TextBook(String isbn, String bookTitle, String authorName, double price, int availableQuantity, int standard) void setStandard(int standard) int getStandard( )

BookShop
String name TextBook textBooks[ ] //size of array should be 100. StoryBook storyBooks[ ] //size of array should be 100.
BookShop( ) BookShop(String name) void setName(String name) String getName( ) boolean insertTextBook(TextBook tb) boolean removeTextBook(TextBook tb) TextBook searchTextBook(String isbn) void showAllTextBooks( ) boolean insertStoryBook(StoryBook sb) boolean removeStoryBook(StoryBook sb) StoryBook searchStoryBook(String isbn) void showAllStoryBooks( )

Start
The start class contains the main method. Inside the main method, create five objects of TextBook, five objects of StoryBook and one object of BookShop. Demonstrate all the methods and constructors.