



भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI

IT Workshop I, B.Tech 3rd Semester

Instructions

1. Deadline to submit is 30th October 2023.

Assignment 9

Total Marks: 25

Design a library management system that includes at least four classes: LibraryItem, Book, Magazine, and Newspaper. The system should incorporate inheritance appropriately. The following attributes (or similar) should be present for each class: title, author, publication date, ISBN, and available quantity.

1. Write a method named validate() to ensure the validation of all the fields mentioned above. Users can input the data through the keyboard. Provide the following validation rules:
 - (a) ISBN should be an alphanumeric value of a specific length.
 - (b) The publication date must be in the format yyyy-mm-dd.
 - (c) The available quantity should be a non-negative integer.

If any of the validations fail, prompt the user to re-enter the details.

2. Create an ArrayList and store objects of different classes. Implement a mechanism to sort the objects based on i) the title of the library items, and ii) the publication date.

[If required, you may write more than one validate() method and specify the validation rule from your general understanding.]