

Tópicos Especiais em Computação Aplicada I

Assignment 1

1. This exercise and the next few require you to design and implement a **Book** class, such as you can imagine as part of software for a library. Class **Book** should have members for the **ISBN**, **title**, **author**, and **copyright** date. Also store data on whether or not the book is checked out. Create functions for returning those data values. Create functions for checking a book in and out. Do simple validation of data entered into a **Book**; for example, accept ISBNs only of the form **n-n-n-x** where **n** is an integer and **x** is a digit or a letter.
2. Add operators for the **Book** class. Have the **==** operator check whether the ISBN numbers are the same for two books. Have the **!=** operator also compare the ISBN numbers. Have a **<<** print out the title, author, and ISBN on separate lines.
3. Create an enumerated type for the **Book** class called **Genre**. Have the types be **fiction**, **nonfiction**, **periodical**, **biography** and **children**. Give each book a **Genre** and make appropriate changes to the Book constructor and member functions.
4. Create a **User** class for the library user. The class will have a user's name, library card number, and library fees (if owed). Have functions that access these methods, as well as a function to set the fee of the user. Have a helper method that returns a Boolean (**bool**) depending on whether or not the user owes a fee.