# Penalty Calculation - Assignment

In this assignment you are expected to develop a C# application which calculates penalty for late returned books in a library system.

## Requirements

1. Develop an application in which users will input
   1. Date the book is checked out.
   2. Date the book is returned.
   3. Country selection (at least 2 different countries)
2. The application should display
   1. Calculated Business Days
   2. Calculated penalty

for the inputs.

1. Penalty should be calculated for BUSINESS days only between the checkout and returned days of the book. The checkout and return dates are inclusive.
   1. It should consider **weekends** **and national holidays/religious holidays** defined in tables in database for a specific country.
   2. Note that some countries have different working days and weekends. For example in Dubai Friday and Saturday are off days. However in Turkey Saturday and Sunday are off days.
   3. Your code should not have these assumptions hardcoded but they must be in configurations. The configuration should be kept in a database table.
   4. Do not provide a screen to edit these values in the database. Manual editing of these values is sufficient.
   5. You should develop your own algorithm for business day count.
      * Hint: Try to use DayOfWeek enumeration for weekends.
2. A book should be returned in **10 days**. Any business day after **10 days** will be considered as a late day.
   1. Each late business day will be penalized for **5.00 $** (or currency code of country)
   2. The currency code and the amount is country specific.
   3. Penalty amount should be a decimal value to accommodate for cents and fills and etc.
3. Any monetary value you display on the screen should have proper formatting

## Notes

* **Do not make OVERDESIGN. The requirements are very simple and stated above.**
* **We will grade your code by its quality. Try to use comments, exceptions, validations, and configuration parameters with readable code as much as possible.**
* **Use Object Oriented Development concepts and develop your classes with proper constructors, methods, etc.**
* **The application should be a simple console application and using MSSQL server database for configuration.**