# OPP Team project

# wolf1.jpg

# Team: Big Bad Wolf

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# Project theme: E-Library

# TFS repository: http://bigbadwolf.codeplex.com/

# Project Description

Our team chose to develop business application **E-library** and it is the theme of the OPP project**.** This project can be used to store and maintain information about employees, client and different type of media. The **E-library** can beused for adding, removing, extracting and searching of information about employees, clients and available media resources.

Abstract class **Person** defines general data (name, addresses, ID, status) and it is inherited by classes **Librarian** and **Client** which includes additional information about registration date. Person includes enumerations **PersonTypes** and **PersonStatus. PersonTypes** differentiates if person is client, employee or administrator, but **PersonStatus** gives person’s status which can be unknown, operational, nonoprational and blocked.

Abstract class **Media** is main class implemented for implementation of media tree. **Media** class is inherited by classes **Paper** and **Electronic.** Class **Media** defines information about title, author, barcode, publisher, quantity. **Paper** class add field for pages. It is inherited by class **Book** and **PeridicPress**. **Periodic press** is implement interface **IPrintable** and it is inherited by class **Magazine** and **Newspaper** which implement interface **IReadable**. Different paper types include variety of additional properties – ISBN, year, volume, owner, editor. **Book** implements both interface **IReadable** and **IPrintable** .

Class **InputOutput** is responsible to maintain objects of type **Person**. It is developed to perform initialization of the file storage, it can save new information or changed data to file. **InputOutput** is used when information has to be read from file.

Class **User** implements interface **IEnumerable** and provide different functionality to objects of class Person and it derived classes - Client and Employee, respectively. Class **User** has methods for search of a person, for add, change or removed persons. Class **User** maintains count statistics about number of people dependant on the person type, rises the event in case of records change.

**MediaList** is a class responsible for maintenance of all kind of media resources. It can find media by barcode, can add or remove media, can extract list with media. **MediaList** can return information about number of available media by its type.

# Class diagram

