

# Data Structures Project

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## Abstract

This project is all about how to use basic data structures to design an application which contains four fundamental classes. Also, we have four files which define several relationship between the classes. The design is based on arrays lists.

## 1 Beginning

The application just have one file and four fundamental classes. "MyConsole" is a facade class which wrapping the "MyOperator" methods. Basically, "MyOperator" does all required functionalities except for "CreateDrug" and "CreateDisease" features. Actually, we just handle random generation in facade level.

By the way, we have another two classes, "DiseaseDrugDb" and "MyLogger", which are initialized at the beginning of program.

## 2 Database

We have been implemented two classes to manage the initialization. Either one provides fast construction. Based on the init time we have chosen "DiseaseDrugDB" class. According to the memory limitations we have decided to store data into four "List<string>". So, "MyOperator" methods are designed on the basis of text processing.

All paths that provided in class are static.

## 3 Logger

As you can see in class definition, we consider several methods for storing and demonstrating all application logs before the exit command, inclusive. By the way, "LogPath" is a static path.

## 4 MyOperator

All application features were implemented in this class. We have tried to use concurrency principles to achieve fast runtime for some methods that have needed intensive operations.