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Abstract

design decisions and their advatanges and disadvantages for the project

LPP   
 Design Documentation

FHICT English Stream

# Introduction

In this document I will try to elaborate my design decisions that I have taken in the process of designing, implementing and testing the LPP application.

# Assignment 1: Parse + Tree

For designing parsing module, initially I was thinking either I need to use common class, singleton class or a simple static class with some public static method.

First of all, I did not use common class because I did not find any point of having multiple objects of Parsing Module especially since none of the potential objects does do have their own set of properties which should be distinguished from other objects of that class.

And between choosing singleton pattern and static common class, since singleton pattern usually comes with the concept of immutability and the fact that one universal object needs to be used within different classes. As we do not have none of these situations there is no need application for singleton pattern.

Lastly since one or two methods of parsing module is needed to being exposed to other classes, the last paradigm of having a static class is being choose.

Also for the sake of encapsulation and separation of concerns, all the methods of Parsing Module become private except **ParseInput**() method as the only gate for interacting with module.

General notes:

* Describe your approach, detail upon challenges, what were your struggles, how you came across them.
* If you did not manage to implement, also mention all your attempts and why your solution could not be implemented.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.
* All team work (2+ students) must be mentioned; e.i.: In class **Tree.cs** from **line 15-55** is code developed together with partner **X (PCN:xxxxxx)**.
* IMPORTNAT: Please be sure to mention all lines of code you worked together with another fellow student, otherwise plagiarism might be detected in your code and you will be sent to the examination board.

# Assignment 2: Truth table + Hash code

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Describe your approach, detail upon challenges, what were your struggles, how you came across them.
* If you did not manage to implement, also mention all your attempts and why your solution could not be implemented.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.
* All team work (2+ students) must be mentioned; e.i.: In class **Tree.cs** from **line 15-55** is code developed together with partner **X (PCN:xxxxxx)**.
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# Assignment 3: Simplify

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Describe your approach, detail upon challenges, what were your struggles, how you came across them.
* If you did not manage to implement, also mention all your attempts and why your solution could not be implemented.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.
* All team work (2+ students) must be mentioned; e.i.: In class **Tree.cs** from **line 15-55** is code developed together with partner **X (PCN:xxxxxx)**.
* IMPORTNAT: Please be sure to mention all lines of code you worked together with another fellow student, otherwise plagiarism might be detected in your code and you will be sent to the examination board.

# Assignment 4: Normalize

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Describe your approach, detail upon challenges, what were your struggles, how you came across them.
* If you did not manage to implement, also mention all your attempts and why your solution could not be implemented.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.
* All team work (2+ students) must be mentioned; e.i.: In class **Tree.cs** from **line 15-55** is code developed together with partner **X (PCN:xxxxxx)**.
* IMPORTNAT: Please be sure to mention all lines of code you worked together with another fellow student, otherwise plagiarism might be detected in your code and you will be sent to the examination board.

# Assignment 5: Nandify

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Describe your approach, detail upon challenges, what were your struggles, how you came across them.
* If you did not manage to implement, also mention all your attempts and why your solution could not be implemented.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.
* All team work (2+ students) must be mentioned; e.i.: In class **Tree.cs** from **line 15-55** is code developed together with partner **X (PCN:xxxxxx)**.
* IMPORTNAT: Please be sure to mention all lines of code you worked together with another fellow student, otherwise plagiarism might be detected in your code and you will be sent to the examination board.

# Software design

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Give a general overview of your software design, your classes, interfaces, design patterns
* Argue why your software design is representative to the assignment
* Describe why the choice of classes\interfaces\design patterns or mention why you decide not to choose certain classes\interfaces\design patterns and kept the code simple.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.

# GUI

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Give a general overview of your GUI (what does each components do).
* Argue why your GUI is representative to the assignment (easy to use, straightforward or require experienced user).
* Describe why the choice of components or mention why you decide not to choose certain components and kept the GUI simple.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.

# Testing

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Give a general overview of your testing (what does each test).
* Argue why your testing is representative to the project (enough - more than 10 tests per assignment - for each components)
* Describe the choice of testing or mention why you decide not to test certain components.
* Describe (in existent) additional feature or smart computations that I might miss while assessing your code.

# Conclusions and future implementations

<PROVIDE YOUR ANSWERS HERE>

General notes:

* Conclude the report and mention future implementations, what could be improved.