

# Project Plan

## 1. *First week*

- ✓ Decide between the proposed projects: a text-based card game, an ENIGMA machine simulator, a chess game;
- ✓ Do a proper research on what are the requirements/knowledge needed for each type of project;
- ✓ Decide what program to use: C / C++ / Python / Java;

## 2. *Second week*

- ✓ The project will consist of implementing a text-based game, Klondike (commonly known as Solitaire/Patience) and the chosen program will be C++;
- ✓ Make a menu/game sketch on paper, just to get a basic idea on what type of variables/functions should I implement, and decide if it will be better to write the application in the OOP way;
- ✓ Read the rules of the game;
- ✓ Start implementing the game, using OOP ways/techniques;
- ✓ Implement the most basic thing needed in the game: the card; and decide what type of variables/methods these class requires;
- ✓ The card class should contain the basic characteristics, such as number, type (example: Diamond, Spades, Clubs, Heart and numbers from 1=A, 2 ...,9, T, J, Q, K=13), and status (flipped/un-flipped);
- ✓ Write basic methods for creating a card, methods for obtaining a card characteristics; and if something else will be needed, it should be added at that moment(things that I have not thought about initially or have not thought would be needed, because the project is in its beginning stages);

## 3. *Third week*

- ✓ Test the work done so far, and I decide if the project should be structured in header/cpp files, such that things will be much clearer;
- ✓ Come up with some ideas on how to implement the deck of cards;
- ✓ The deck is just something that will use card objects; and it should contain only methods for populating/displaying/shuffling itself; also in this class I will put the number and type of cards; take them as constant static variables, since they should be something that should not change over time;
- ✓ Test the methods created, and think if something more is needed for the time being;

- ✓ Sketch on paper some ideas to what should be implemented next, based on how the game is structured/works and its rules;
- ✓ Decide how many classes should be added; at least one that provides a way to create/manipulate/manage lists/arrays and vectors of lists (here I was thinking about the way the game is structured), and another class that should be something specific to the game, containing the implementation of the rules;
- ✓ Other changes, if some, will be made in the future weeks;

#### 4. *Fourth week*

- ✓ Construct a class that has as variable, a vector which contains pointer objects of type card, and this should be useful since something that enables the player to move cards between two chosen columns is needed;
- ✓ This class should provide a way to move cards between rows; this involves adding methods that remove/add cards from one column to another;
- ✓ Test and debug;

#### 5. *Fifth week*

- ✓ Revised the work done so far;
- ✓ Add some additional variables/methods to the classes constructed so far, if needed and make other changes if implementation of what has been done is not sufficient or does not work for all possible situations ;
- ✓ Write the class containing the game rules; and after that, make the main function;

#### 6. *Sixth week*

- ✓ Still working on the same thing;
- ✓ Test/debug sessions;