

**BABA IS YOU**

**PROJECT ARCHITECTURE**

We decided to use MVC format to divide our classes into three parts.

- Classes that will manage user input.
- Classes that will display informations on the screen.
- Classes that will manage game's data.

Here's a list of classes and a description of what they do :

**GameLoop** - The main loop of the game. Here we handle user input and notify the GraphicalDisplay to update the game window .

**GameMap** - The game map. We use a grid to place items on it.

**Item** - An item is an object that we put on the map. It have a type like for example: Skull or Water and a physic like Hot or Push.

**RulesChanger** - This class will observe the game map and its words. It will update items that are on it every time when an item moves.

**MovementManager** - All methods that the map will use to move an item. Here we have all methods to handle all cases of movement. For example baba moves on water that is sink.

**SaveManager** - Saves game maps as text file an loads them.

**CommandLineParser** - Parse cheatcodes and execute them.

**GraphicalDisplay** - Creates a window and display items on it.

**Point** - Record to represent a point in a 2D space.

**Enums :**

**Direction** - Contains all directions : UP, LEFT, RIGHT, DOWN

**GameState** - Defines the state of the game : WIN, DEFEAT, NONE

**ItemPhysics** - Contains all item's physics like SINK, PUSH or MELT

**ItemType** - Contains all item's types like Baba, Skull or Water

**Changes after the beta defense :**

- The class Map was renamed on GameMap
- The class MapBox was deleted because it was useless
- Creation of MovementManager class to manage movement
- Deletion of GameMap argument in the Item class constructor
- Deletion of GameMap field in the Item class
- Methods in RulesChanger class were renamed for better understanding
- Words were renamed. For example before : « WdWin » after : « WinWord »
- Creation of class SaveManager
- Creation of class GameLoop
- Creation of class GraphicalDisplay
- Creation of class CommandLineParser