

## ❖ MINESWEEPER DEVELOPER DOCUMENTATION

### I. Overview of desired program

The player must clear a board containing hidden mines without detonating any of them, with help from clues about the number of neighbouring mines in each field.

### II. Program explanation

The programme consist of one main class one subclasses and some supplementary function

```
class player{
```

```
diff: represent the difficulty
```

```
player():constructor of class player
```

```
int playagain():playagain offer the possibility to play another round  
after loss or win of previous one
```

```
void writestate(int x): depending on x writestate increment your  
winning or losing score
```

```
int difficulty():difficulty allow you to change difficulty setting
```

```
void states():state shows the number of wins or losses according to  
each difficulty
```

```
};
```

class map represent the game map and inherit some of the necessary function for the game from playe classr:

```
class Map:player {
```

d :represent the size of map

numberofbomb: represent the number of bomb in map

Map1:two dimension array that contain the location of bombs

Map2:two dimension array with which the player interact an try to clear

Map():constructor

~Map():destructor

Void create():initialize the maps

int introduction():open main screen allow the possibility to change configuration exit or play void draw():draw the map

int check(int x ,int y):check coordinate of case if it contains bombs if not it clears it and give number of adjacent bombs

int endgame():check if the map had been cleared

void play():utilize previous method to simulate game process

```
}
```

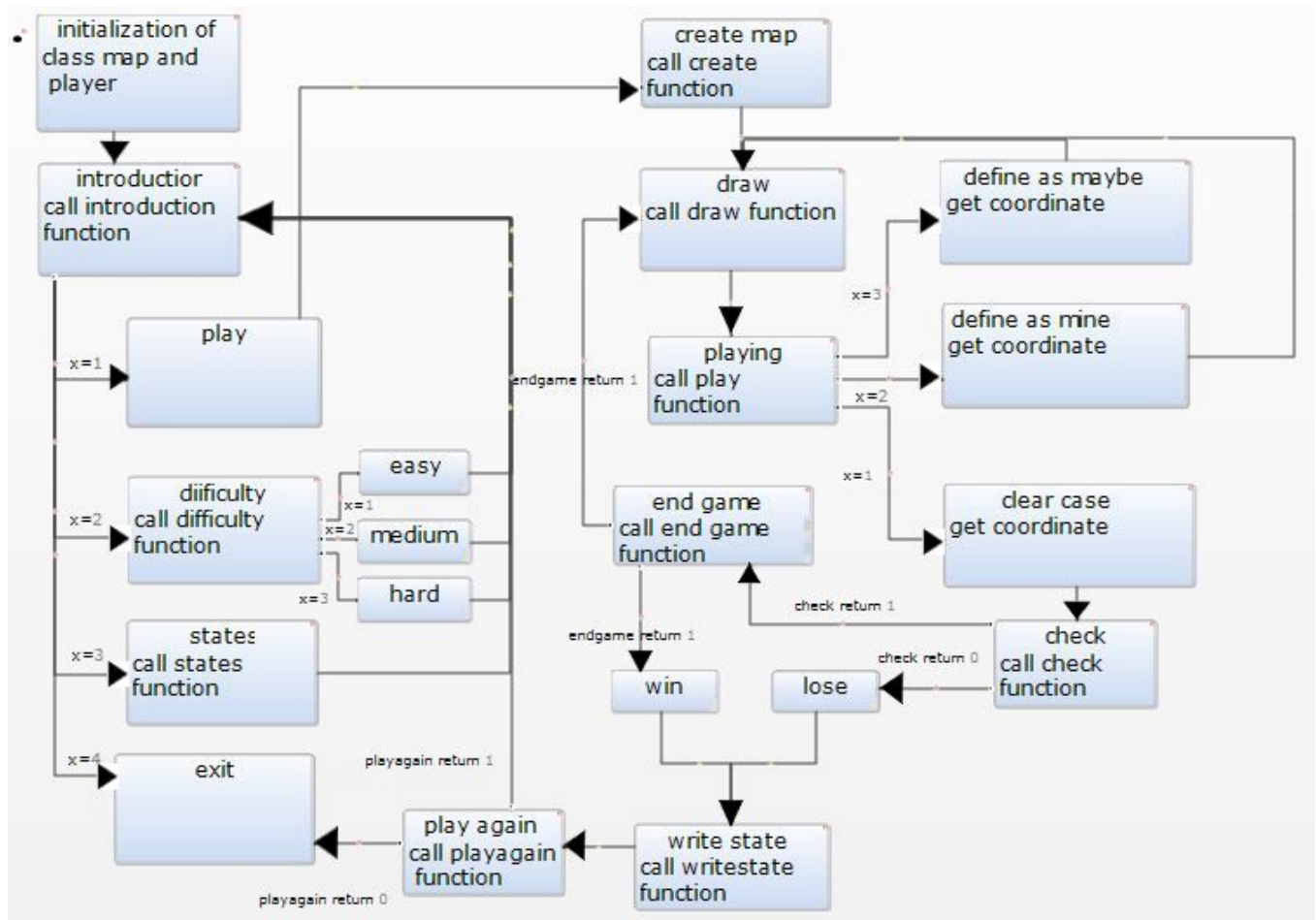
void newpage():this is an inline function that clear the screen

### III. Implemented object-oriented programming technique

Inheritance (base and derived classes).

File management: saving data to file, loading data from file.

Exception management (try/catch).



## IV. Testing

Testing was done manually by replaying the game and seeing if all cases are working