

Graphic library

So to implement new graphics libraries compatible with my system.

You will need to create a graphics interface with this graphic interface:

```
class IGraphics {  
  
public:  
  
    virtual ~IGraphics() {}  
  
    // Initialize the graphics library  
  
    virtual bool init() = 0;  
  
    // Clean up and close the graphics library  
  
    virtual void close() = 0;  
  
    // Draw an image with his path, and set up the coordinate (x, y) and he's size (scaleX, sclaeY)  
  
    virtual void drawImage(const std::string& imagePath, int x, int y, float scaleX, float scaleY) = 0;  
  
    // Draw a rectangle with the top-left corner at (x, y), with the given width, height, and color  
  
    virtual void drawRect(int x, int y, int width, int height, const std::string& color) = 0;  
  
    // Draw text at the given position (x, y) with the specified color and size  
  
    virtual void drawText(int x, int y, const std::string& text, const std::string& color, int size) = 0;  
  
    // Update the display to show the drawn elements  
  
    virtual void updateDisplay() = 0;
```

```

// Check and process input events, such as keyboard and mouse events

virtual int handleEvents() = 0;


// Clear function in the lib implemented for screen clearing

virtual void clear() = 0;


// Find the lib being implemented

virtual int isLib() = 0;


// Get name of the player

virtual std::string getName() = 0;


// Set Name of the player

virtual void setName(std::string name) = 0;


// Init name of the player, make so that the user can chose his name by typing it

virtual void initName() = 0;


// getWindowWidth

virtual int getWindowWidth() = 0;


// getWindowHeight

virtual int getWindowHeight() = 0;

};

```

These function are pretty general except maybe the isLib, And the initName.

The isLib function return a integer so that we recognize the lib, so i have 3 libs, if another lib was implemented, isLib would return 4 because i would have 4 lib.

InitName basically handle all the keyboard letters to allow the user to enter a name that will be changed with setName.

Game library:

So to implement new game libraries compatible with my system.

You will need to create a graphics interface with this game interface:

```
class IGame {  
  
public:  
  
    virtual ~IGame() = default;  
  
    // Initiate all the game values  
  
    virtual void init() = 0;  
  
    // Handle all the game updates, like the character movements and everything else  
  
    virtual void update(IGraphics& graphics) = 0;  
  
    // Display everything  
  
    virtual void render(IGraphics& graphics) = 0;  
  
    // Retrun true if the game is over  
  
    virtual bool isGameOver() = 0;  
  
    // Handle events and take a int event that will be given with the help if the graphics handle event function  
    that retron a int for each event  
  
    virtual void handleEvent(int event) = 0;
```

```
// Change highscore and print int

virtual void updateHighScores(const std::string& playerName, int playerScore) = 0;

// Change it in the file

virtual void saveHighScores() = 0;

// Get score

virtual int getScore() = 0;

};
```

Everything is pretty self explanatory or already explained.