

singleton pattern

Board

```
private:
    int width;
    int height;
    shared_ptr<shared_ptr<shared_ptr<char2[1][1]>> grid
    vector<Figure> vecOfFigure; // composition
    vector<shared_ptr<char2>> vecOfLoadedPoints; // usage only during loading
    Board() {} // principle of singleton
```

Public:

```
void initialize()
void addFigureToTheArray(...)
void removeLastFigure()
void listDrawnShapes()
Get and Setter for height, width, grid, vecOfFigure
void ChangeGridAndAddNewPoints(...) // usage only in loading of files
void printBoard()
void clearBoard
```

(Class Command Handler:

Board Board

Figure Figure = Figure (0,0) - default

string userCommand

vector<string> words

set<string> validShapes

parent class of
classes: Triangle, Rectangle,
Line, Circle

Figure:

protected:
vector<shared_ptr<char2>> vecOfPoints
static int counterOfId;

int id;
pair<Board coordOrigin, struct
int widthOfBoard } was not
int heightOfBoard } necessary
bool isOnBoard = 0 // indicate
if the Figure

Public:

Figure* addShapeToBoard
bool checkWithinABoard
void alteringVectorOfPoints // for undo
void clearVecOfPoints
void checkTheSameFigure

(child classes have the same method, but also define operators--)