Tile.java

Lines: 14

```
    boolean isVisited; // what is the purpose of this Why did you use it
```

20

```
  Group adj; // what is the purpose of this and what is that in java
```

22

```
      // what is the purpose of this and what how does it work
  static HashMap<Integer,String> groupColors = new HashMap<Integer,String>();
```

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```
    setMinSize(60,60); //its for Tile Size I get it but
    this.setMaxSize(80, 60); //Why is there MaxSize //it doesn't effect the blocks
thought
```

35

```
    isVisited=false; //? why did u used this how does it affect the Tile?
```

36

```
    inGroup=false; //does that means it isn't Grouping with any other Tile
```

49

```
  // after reaching lv 12 from where it takes it color?
```

56

```
// can you please Explain how does this code works// and why there is only 3 color here
    name = String.format( "#%02X%02X%02X", int)( c[i].getRed() * 255 ),(int)(
c[i].getGreen() * 255 ),(int)( c[i].getBlue() * 255 ) );
```

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```
      //what does this put does and why its i+1
        groupColors.put(i+1,name);
```

```
//set color according to the number x // i thought populateColors did that line 43
    public void setColor(){
```

```
// can you give me a example how its working
        if (groupColors.containsKey(value)){        //if key exists already
            color = groupColors.get(value);          //get color from the value
```

```
        //what do you mean with random for the group color and why is there 3 time Math.random
            c = Color.color(Math.random(), Math.random(), Math.random());    //pick a
random color for group how??
```

```
// this will add a block?
    public void addValue(){
        value++; //why id we increment it?
        setText(""+value);
        setColor();
```

```
//what does it do?
    public void changeValue(int u, int l){
        Random rnd = new Random();
        value = rnd.nextInt(u-l)+l;    i dint get why u-l
        setText(""+value);
        setColor();
```

```
// what does it do?
    public void setValue(int v){
        value = v;
        setText(""+value);
        setColor();
```

```
//what is the use of it if we are in Tile class and why do we have the same method in Group
and Board
    public void removeTile(){
        isVisited=false; //how
        inGroup=false;
```

```
//what does it do reset?
    public void resetTile(){
        setVisited(false);
        setGroup(false);
        setAdj(null);
    }
```

Group.java

//is this class for printing out group of Tile?

18

```java
    //is this adding a Tile to the group
    public void addTile(Tile t){
        tiles.add(t);      }
```

25

```java
    //what does it do
    //i delete this method and the game was still working
      public void getAdj(){  //is it printing those number "blocks"?
        if (tiles.size()>0){
            for (int i=0 ; i<tiles.size() ; i++)
                System.out.print(" "+tiles.get(i).getValue()+"
r:"+tiles.get(i).getRow()+" c:"+tiles.get(i).getCol());
            }
```

33/41

```java
    // why do we have 2 remove method what does each do?
    public void remove(Tile t){
        t.setVisited(false);
        t.setGroup(false);
        t.setAdj(null);//what do you mean
        tiles.remove(t);       }
```

55

```java
    // i dint get what does it do?
    public ArrayList getTiles(){
        return tiles;
      }
```

Board.java

23

```java
        gameBoard = new Tile[row][col]; // this 2 dimension array which has no Constructor
in Tile class with those parameters! so how does it works at all?
```

30

```java
//what does this method do
//and after reaching 6 how did we get 7
    public void randInit(){
        Random rnd = new Random();
        int number;
        for (int i=0 ; i<rows ; i++)
            for (int j=0 ; j<cols ; j++){
                number=rnd.nextInt(6)+1;
                gameBoard[i][j] = new Tile(number,i,j); //can you explain to me how its
working
```

```java
//what does it do i dint it
public void initialize(){
        int arr[][] =
    {{4,1,1,1,3},{1,3,2,2,3},{1,1,2,1,1},{4,2,2,3,1},{2,1,4,4,6}}; //what is that
    and what are those numbers for?
      for (int i=0 ; i<rows ; i++)
        for (int j=0 ; j<cols ; j++){
```

```java
            }
        //is this when i max is more than 6?
        if (gameBoard[i][j].getValue()==score-1)
                        gameBoard[i][j].setColor();
```

```java
//What does this method do
// i remove it and the game still works
public void display(){
    for (int i=0 ; i<rows ; i++){
        for (int j=0 ; j<cols ; j++){
            System.out.print(gameBoard[i][j].getValue()+" ")
            ;// you put this space in between why? it doesn't effect the game
        }
    System.out.println();
    }
}
```

```java
// why do we need this method?
public Tile[][] getTiles(){
    return gameBoard;
    }
```

```java
//what does this method do
    public void setTiles(int[][] tiles){
        for (int i=0 ; i<rows ; i++)
            for (int j=0 ; j<cols ; j++){
                gameBoard[i][j] = new Tile(tiles[i][j],i,j);
            }
        }
```

```java
// what is that?
public void setBounds(int u, int l){
    upper = u;
    lower = l;
```

```java
//what does it do?
```

```java
    // i also remove it and its still working
    public void display1(){      //displays groups
        for (int i=0 ; i<groups.size() ; i++){
            groups.get(i).getAdj();
        System.out.println();
```

118

```java
        // what are those Queue<Tile> what do u mean with BFS

        //does this method check if right left top bottom are matched?
```

138

```java
  //What does it do? reset what
    public void reset(){
        groups.clear();
        for (int i=0 ; i<rows ; i++){
            for (int j=0 ; j<cols ; j++){
                gameBoard[i][j].setGroup(false);
                gameBoard[i][j].setVisited(false);
                gameBoard[i][j].setAdj(null);
            }
        }}
```

150

```java
  //What does it do?
    public void checkGroups(){
        reset();           //reset after each move for new groups what does it reset?
        Queue<Tile> traversal = new LinkedList<Tile>(); // can you please Explain what
does it do?
```

186

```java
  // in Group and tile we have the same method so why?
    public void removeTile(Tile t){
```

196

```java
// why do we have two method like that and what does each do
    public void removeTile(int val){
```

222

```java
   // why is there shifDown for Tile and one for Group and how is it working
```

256

```java
//why do we did that
    public void findMinMax(){
        }
```

289

```java
    // what is (upper-lower)+lower
    private void random(Tile t){
        Random rnd = new Random();
        int v = rnd.nextInt(upper-lower)+lower;        //can you please Explain more
        t.setValue(v);
```

How are greedy and protective working what logic I mean

BoardViewController.java

```
//what is this class for why did u implements it to Initializable
```

```
//what are those called in java and how it works
Tile[][] tiles;
                            Tile ][] prevState;
```

```
//what is the propose of using it here?
            Tile.populateColors();        //fill hash map of colors
```

```
//what do u mean
    ub=6;        //set upper bound
    lb=1;        //set lower bound
    w=5;          //width
```

```
//what do mean with rows - cols//gridPane cuase its the same name as Fxml
gridPane.add moves,0,rows+1 ;
gridPane.add info,3,rows+1,3,1 ;
gridPane.add bomb,cols+1,1 ;
                    gridPane.add undo,cols+1,2 ;
```

```
// of What if we are in BoardViewController there is no resume game buttom
private void storePrevState
```

```
// we are setting a Board for the to start right?
public void setBoard int r, int c, String level, int h
    rows=r;
    cols=c;
    this.level = level;
    b = new Board rows,cols,level
```

```java
;
        b.setBounds(ub,lb);//what does it do

        gridPane.add(tiles[i][j],j,i);// where this goes
            }


        }
```

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```java
    //why is there 2 setBoard what when this will work and when the first one will
    public void setBoard(int r, int c, String level, int mov, int score , int hscore, int
board[][]){
                gridPane.add(tiles[i][j],j,i); // where this goes
            }
```

155

```java
//what this method do can you please Explain a bit
    private void addGridEvent() {
                    if (event.getSource() instanceof Tile{ //what is that

                if (t.inGroup()){ //what do u mean
```

269

```java
    //with  getTiles what for do we need it
    public int [][] getTiles(){
                    }
```

OptionViewController.java

44

```java
                ObservableList<String> lev = //What is this?
```

54

```java
    public void startGame(ActionEvent e){ //how does it know that its okay button
```

66

```java
//what is the different between both of setBoard Constructor
        //can i call it without xmlReader?
        ctrl.setBoard(row,col,level.getValue(),xmlReader.getHighScore());
//Call with default settings
                    Stage primaryStage = new Stage();
```

70-74

//what are those

```java
        primaryStage.setMinWidth(ctrl.cols*60+80);
        primaryStage.setMinHeight(ctrl.rows*60+60);
        primaryStage.setMaxWidth(ctrl.cols*60+80);
         primaryStage.setMaxHeight(ctrl.rows*60+60);
```

111

```java
        if (r.matches("[4-9]")) //how does this matches works
```

StartController.java

29

```java
        //what is that? URL and the other thing and why do we need it, if its empty
        public void initialize(URL url, ResourceBundle rb) {
```

39

```java
        //can i start the BoardView from here without going into the OptionView

        FXMLLoader loader = new
FXMLLoader(getClass().getClassLoader().getResource("view/OptionView.fxml"));
```

67

```java
        //what is crtl?
        BoardViewController ctrl = loader.getController();
```

85

```java
        what is b
        if (!ctrl.b.checkStatus()){
```