



Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

JAVA Project game 13!

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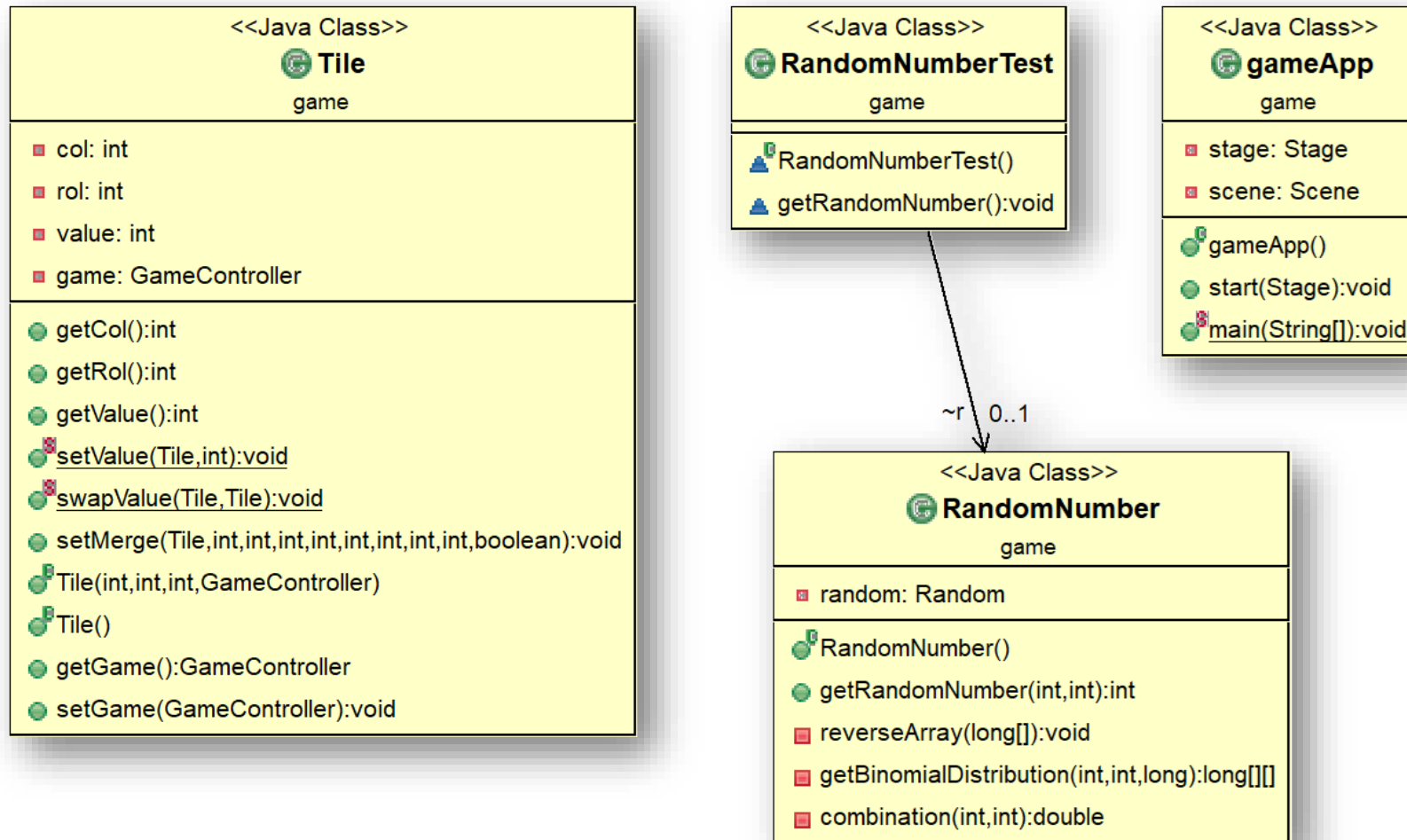
Presentation 03.06 2019



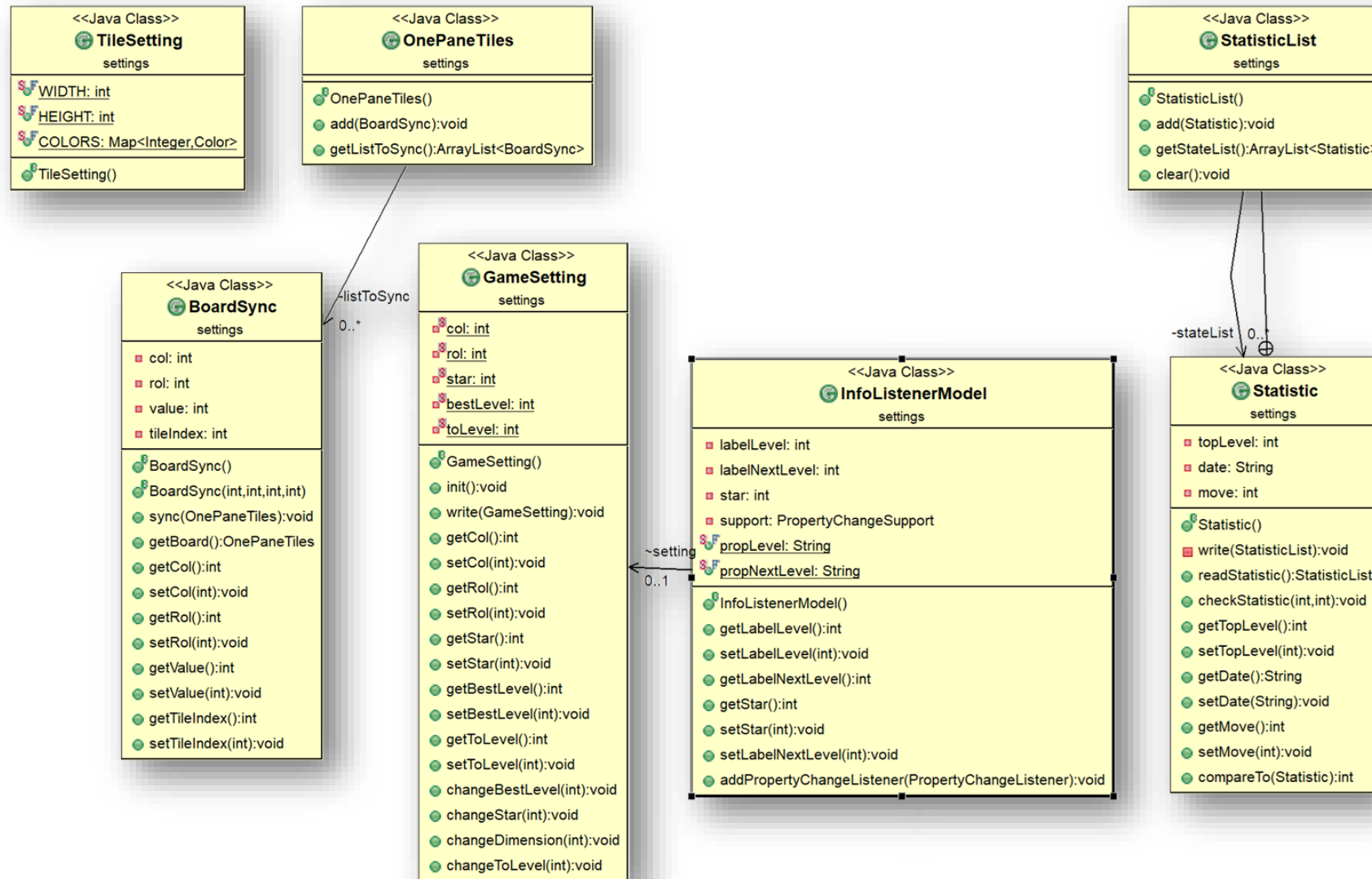
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UML class diagram

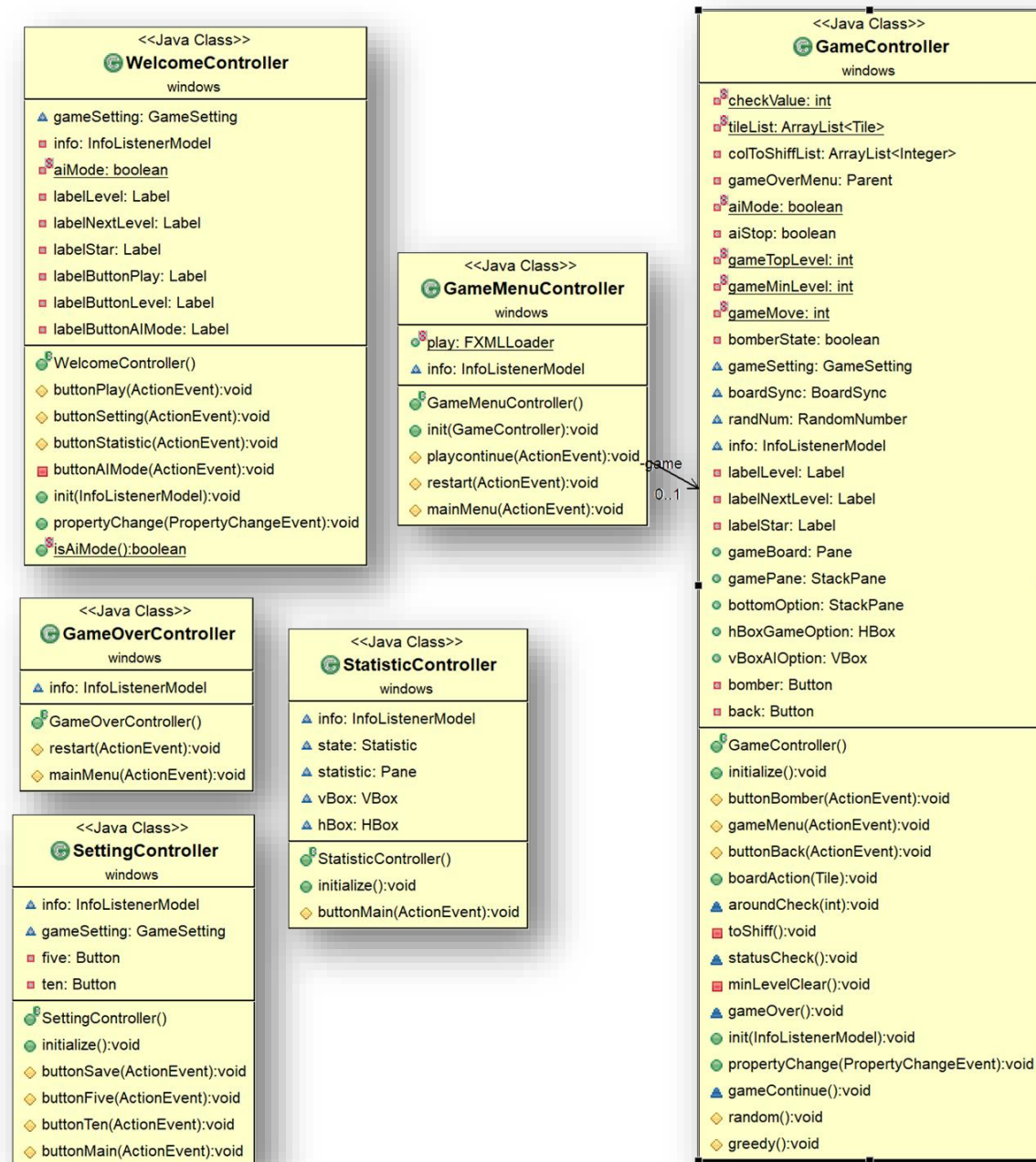
UML class diagram 1/3



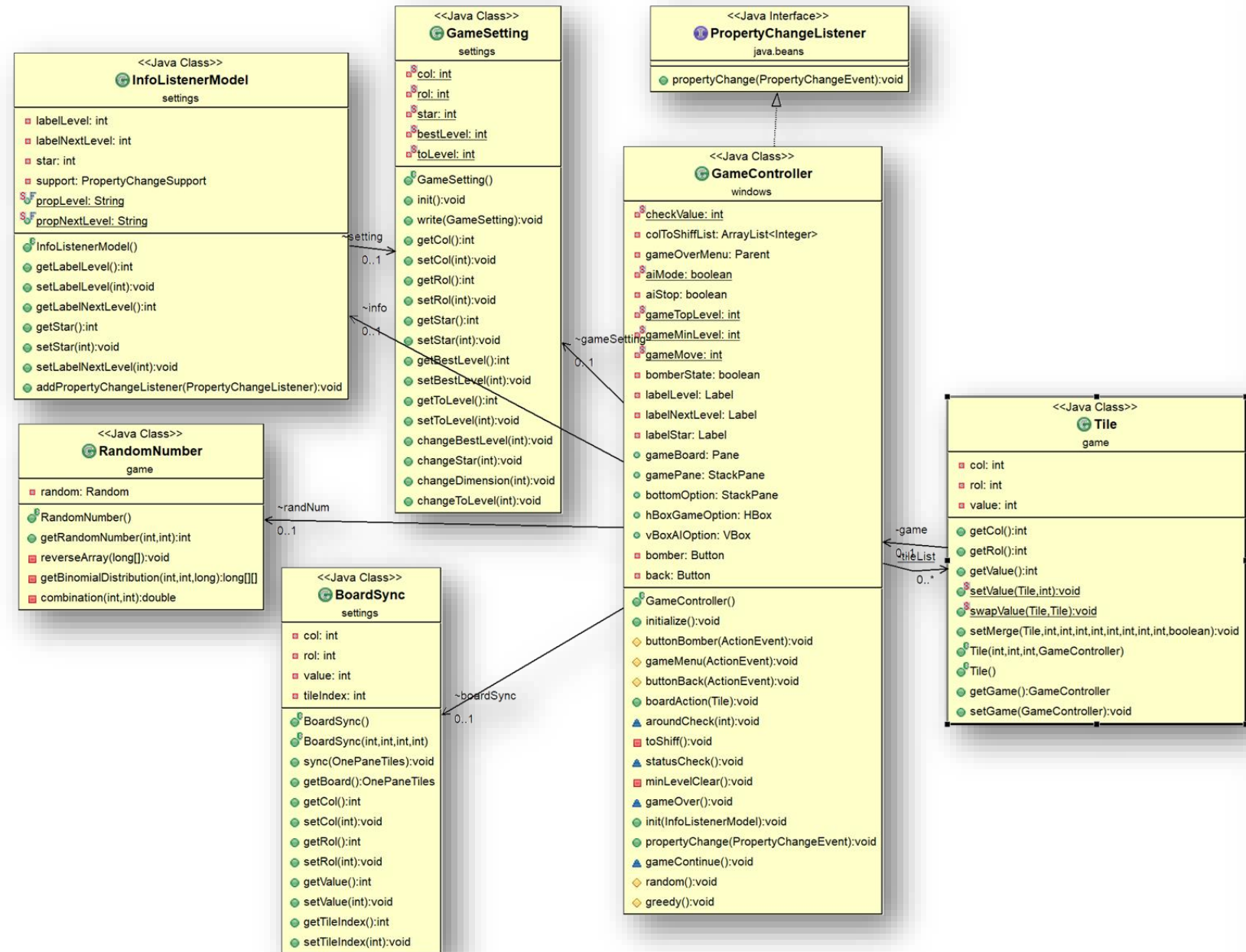
UML class diagram 2/3



UML class diagram 3/3



UML class diagram vom Spiel

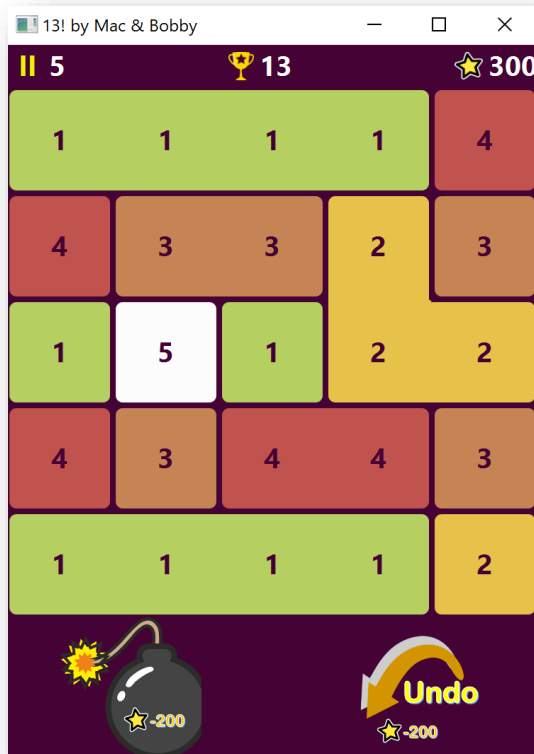




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Interesting code snippets (e.g. observer pattern)

Set -1



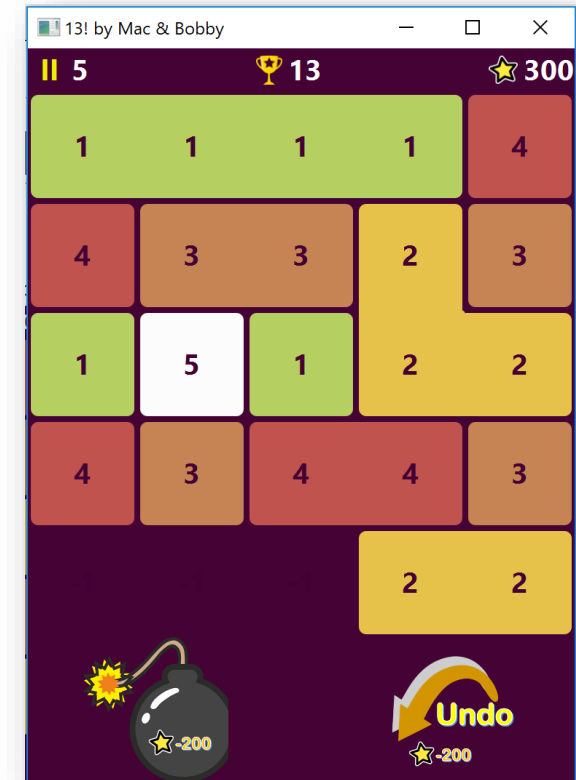
```
void aroundCheck(int tilePos) {
```

```
    if(tilePos-gameSetting.getCol() >= 0 &&
       checkValue == tileList.get(tilePos-gameSetting.getCol()).getValue()) {
        Tile.setValue(tileList.get(tilePos-gameSetting.getCol()), -1);
        colToShiffList.add(tileList.get(tilePos-gameSetting.getCol()).getCol());
        aroundCheck(tilePos-gameSetting.getCol());
    }
```

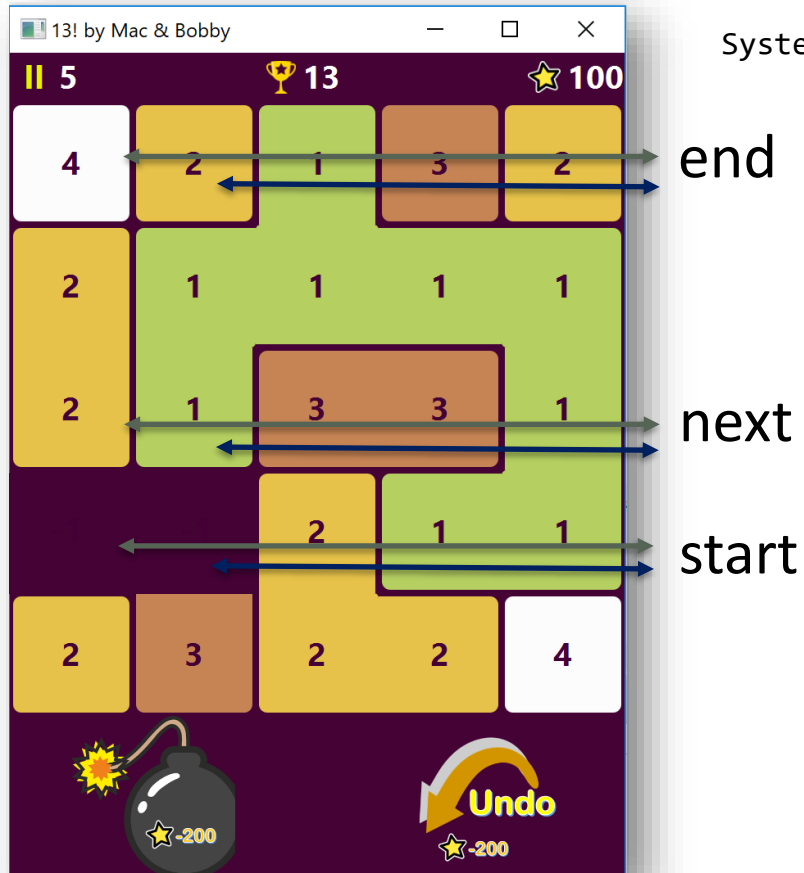
```
    If (tilePos+gameSetting.getCol() <= tileList.size()-1 &&
       checkValue == tileList.get(tilePos+gameSetting.getCol()).getValue()) {
        Tile.setValue(tileList.get(tilePos+gameSetting.getCol()), -1);
        colToShiffList.add(tileList.get(tilePos+gameSetting.getCol()).getCol());
        aroundCheck(tilePos+gameSetting.getCol());
    }
```

```
    If ( tilePos-1 >= 0 &&
        tileList.get(tilePos).getCol() == tileList.get(tilePos-1).getCol()&&
        checkValue == tileList.get(tilePos-1).getValue()) {
        Tile.setValue(tileList.get(tilePos-1), -1);
        colToShiffList.add(tileList.get(tilePos-1).getCol());
        aroundCheck(tilePos-1);
    }
```

```
    If (tilePos+1 <= tileList.size()-1 &&
        tileList.get(tilePos).getCol() == tileList.get(tilePos+1).getCol()&&
        checkValue == tileList.get(tilePos+1).getValue()) {
        Tile.setValue(tileList.get(tilePos+1), -1);
        colToShiffList.add(tileList.get(tilePos+1).getCol());
        aroundCheck(tilePos+1);
    }
    toShiff();
    colToShiffList.clear();
}
```



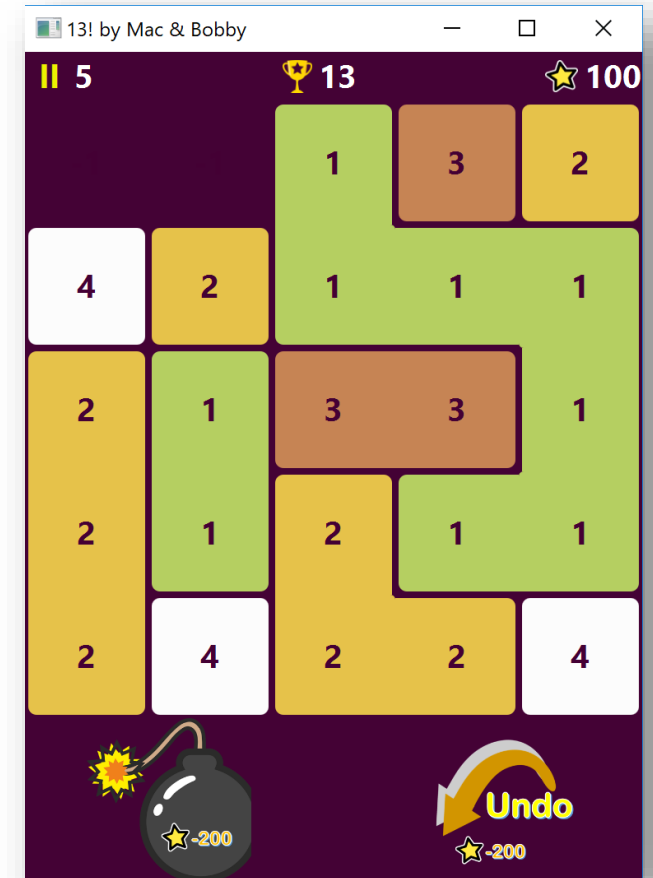
Shift Function



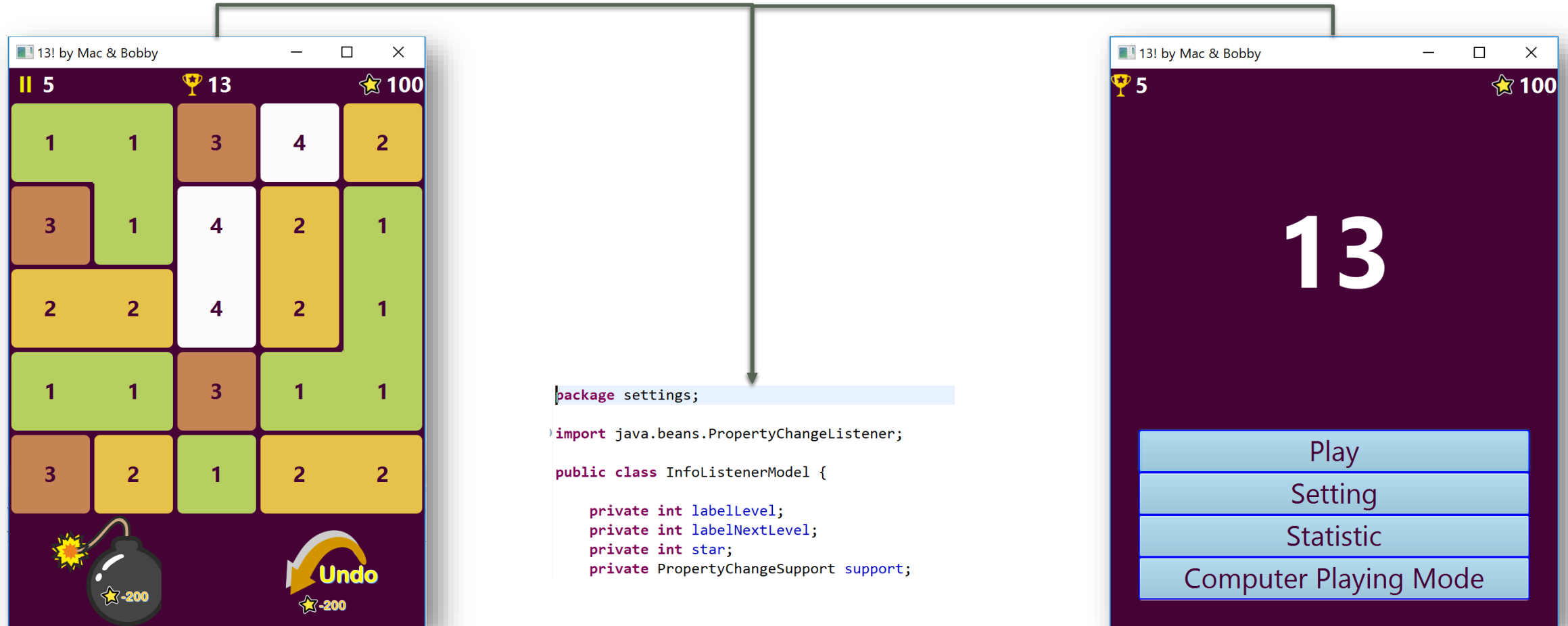
```
System.out.println(colToShiffList.toString());
```

```
[1, 0]
```

```
private void toShiff() {
    for (int col: colToShiffList) {
        col *= gameSetting.getCol();
        int start = col+ (gameSetting.getCol()-1);
        int next = start-1;
        int end = col;
        while(start >= end) {
            if(tileList.get(start).getValue() <= 0) {
                break;
            }
            start--; next--;
        }
        while(next >= end) {
            if(tileList.get(next).getValue() >= 0) break;
            next--;
        }
        while (next >= end) {
            Tile.swapValue(tileList.get(start), tileList.get(next));
            start--; next--;
        }
        //Tile.setValue(tileList.get(end), (int)
        randNum.getRandomNumber(gameMinLevel, gameTopLevel));
    }
}
```



Observer

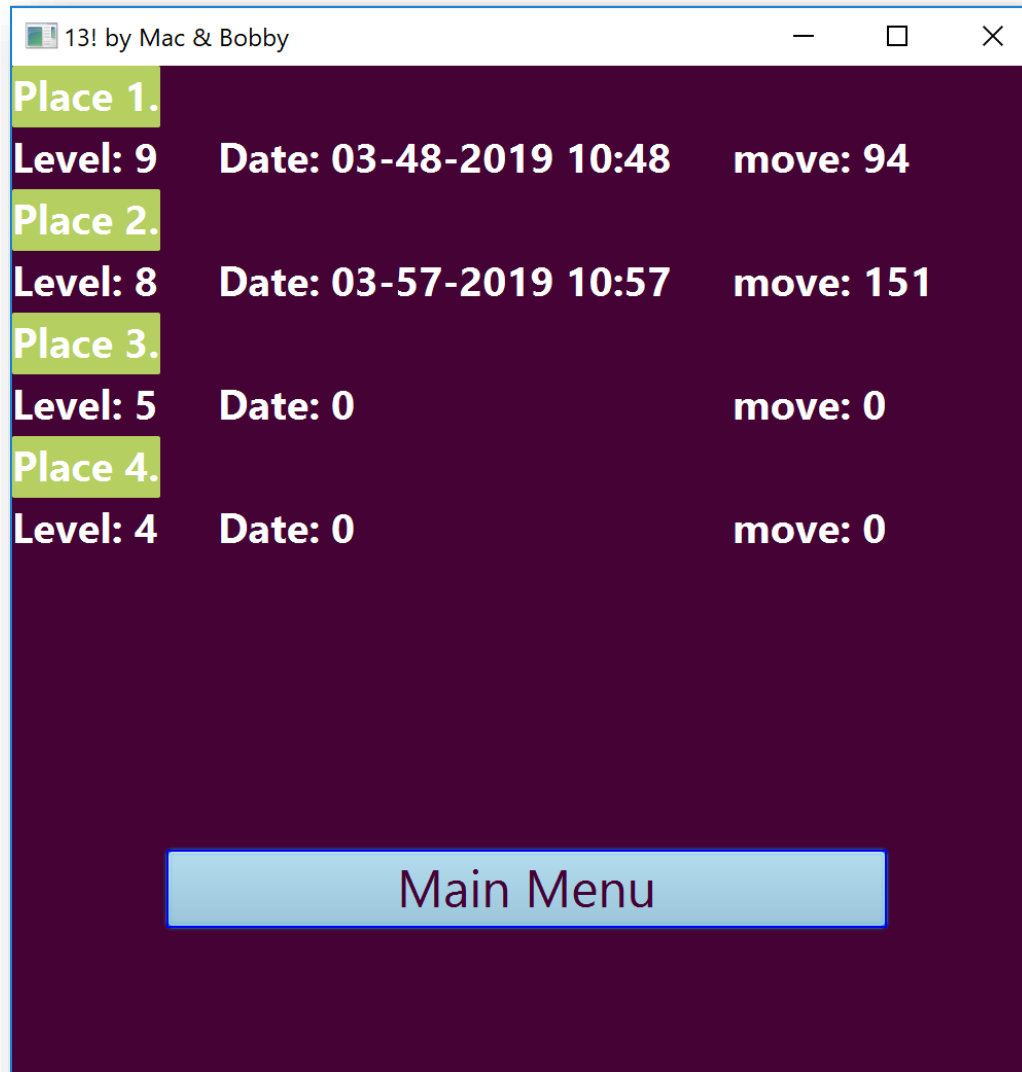




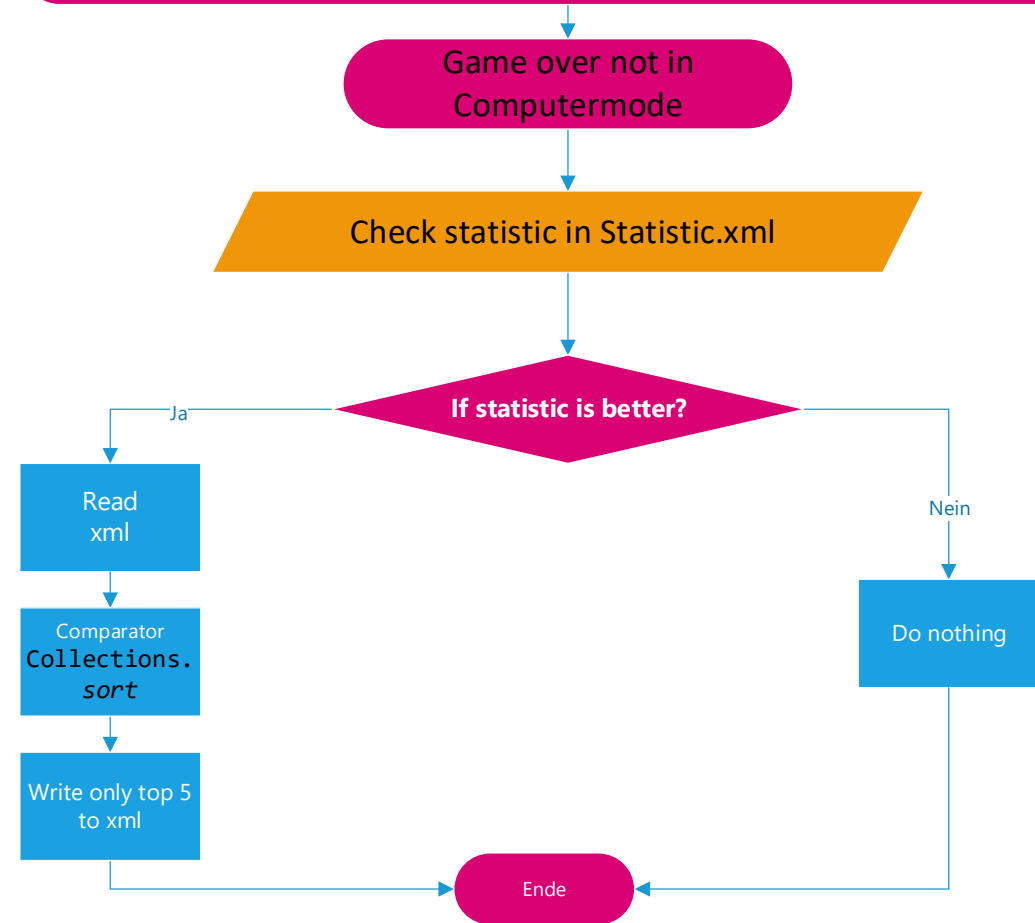
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Extra features

Extra features



Detailed game statistics (Top 5)





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Thank you