Assignment #4   Luke O'Brien

CS 1450 : 002

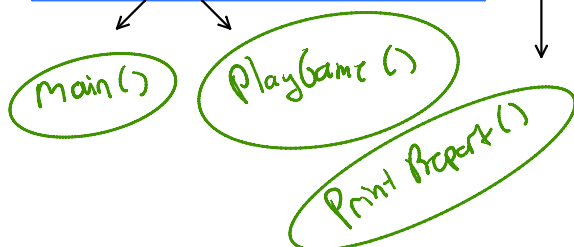Class, method, Interface, Abstract, Generic

Problem:

We are to simulate a game of Pin ball. Target are read from a File That tells us where each target must go. We then need to play a game & return a game report.

What I Don't Know:

- How & if you can Return a null through a method
- How to use the CompareTo() method

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→ Main() → PlayGame()

→ Print Report()

Main ():

```
Public static void main(String[] args) throws IOException //or FIleNotFoundException
{
        //create scanner for game file
        Scanner machine = new scanner(new File("[fileName]");

        //create object instance of PinballMachine
        PinballMachine game = new PineballMachine(row, column);

        //While there are more lines in the file to be read
        While(hasNextLine)
        {
                //Read and parse data while putting them into correct data structure
                Game.add(row, comlumn, Target);
        }

        //Need to displaying the playing space
        Game.displayGameBoard(); //----- Block 1

        //Needs to run through the play file and cross check
        playGame(game); //----- Block 2

        //Prints out the final stats
        printReport(game); //----- Block 3
}
```

Notes!

- array List for TargetReport
- Use predefined interface
- Use String.format()

PinballMachine

addTargetToPlayingField()
displayPlayingField()
getNumRows()
getNumColloum()
getTarget()

Target

getID()
getType()
getPoints
getHits.
incrementHits()

TargetReport
Comparable

Print()

@Override
CompairTo()

What I learned:

- CompareTo() is really powerful. Can be used to Sort many data structures very fast.

- String.format(), is very usefull.

- you can return a null (Just have to be carefull)