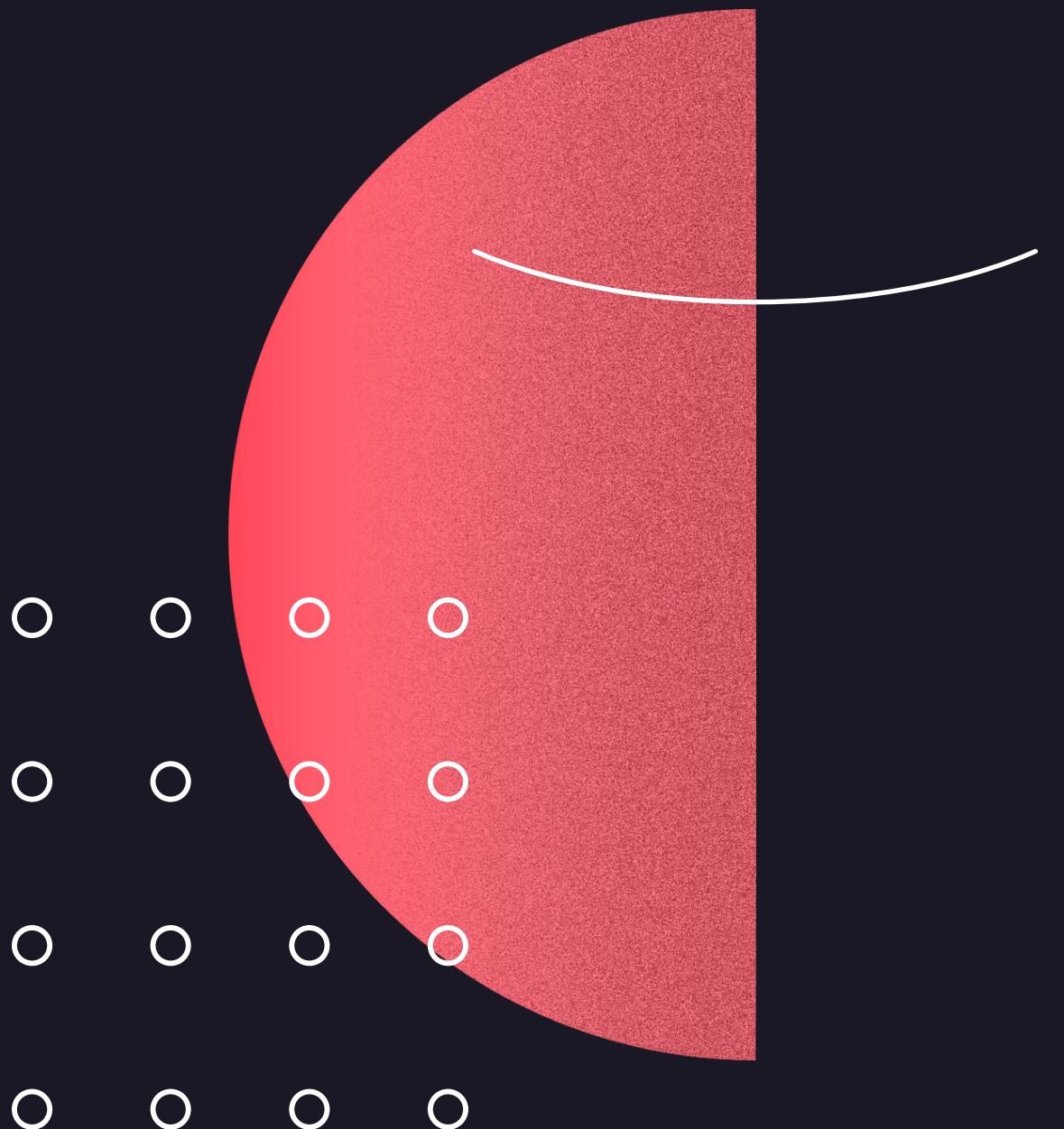


Object Oriented Programming

Java Object Oriented Programming

Review of Lectures/Today's Agenda

- What is an Object?
- What is a Class?
- What is Object Orientated Programming



This slide set is a little longer than usual. We will not get through it all, but this is our last session. You can use the rest of it on your own.



CLASSES

We have been using classes this whole semester. We know will began to understand what a class is.

Reusable
Code/Scalability

An object is a real-world entity!

Do not think any deeper than that!

A class is a template for all objects of that
TYPE.

```
public class BasketBallTeam {  
    private String name;  
    private String city;  
    private File logo;  
    private String [] players;  
    private String coach;  
    private int wins;  
    private int losses;
```

```
public BasketBallTeam(String name, String city, String[] players, String coach) {  
    this.name = name;  
    this.city = city;  
    this.players = players;  
    this.coach = coach;  
}
```

```
public class BasketballTeamDriver {  
    public static void main(String[] args) {  
        String [] players = {"Jason Tatum", "Jaylen Brown", "Marcus Smart"};  
        BasketBallTeam celtics = new BasketBallTeam("Celtics", "Bostpn", players , "Ime Udoka");  
    }  
}
```

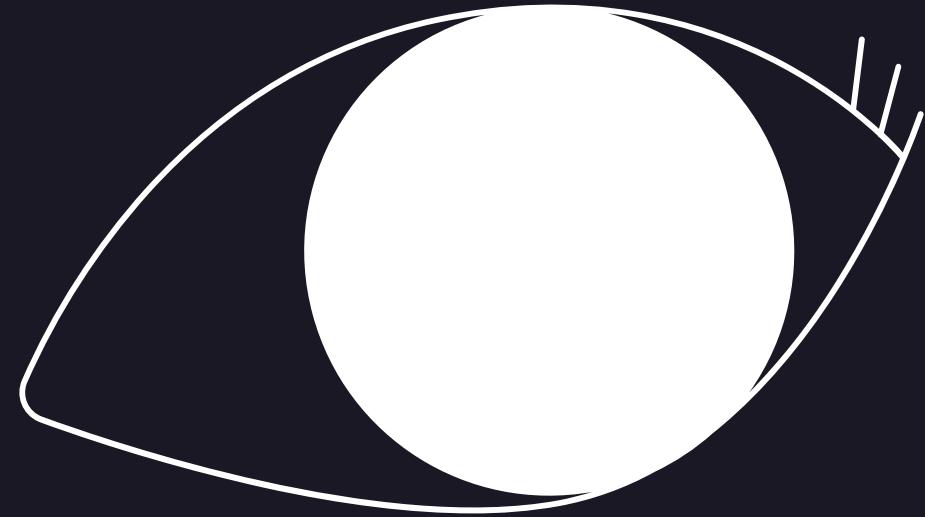
Instance Variables

The data in a class is called an instance variable

These are
attributes/properties/
member data

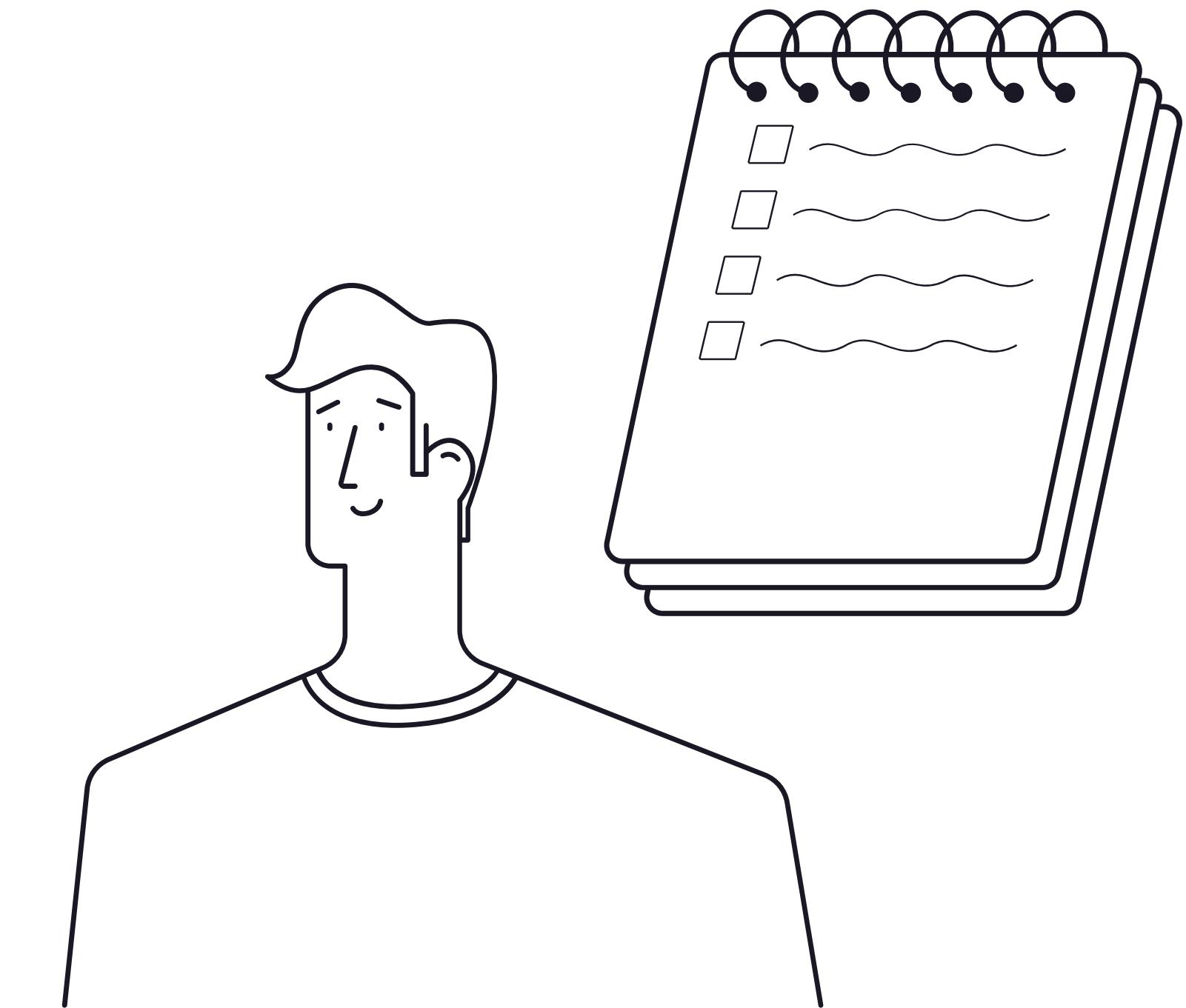
Objects also have
Behaviors(methods)

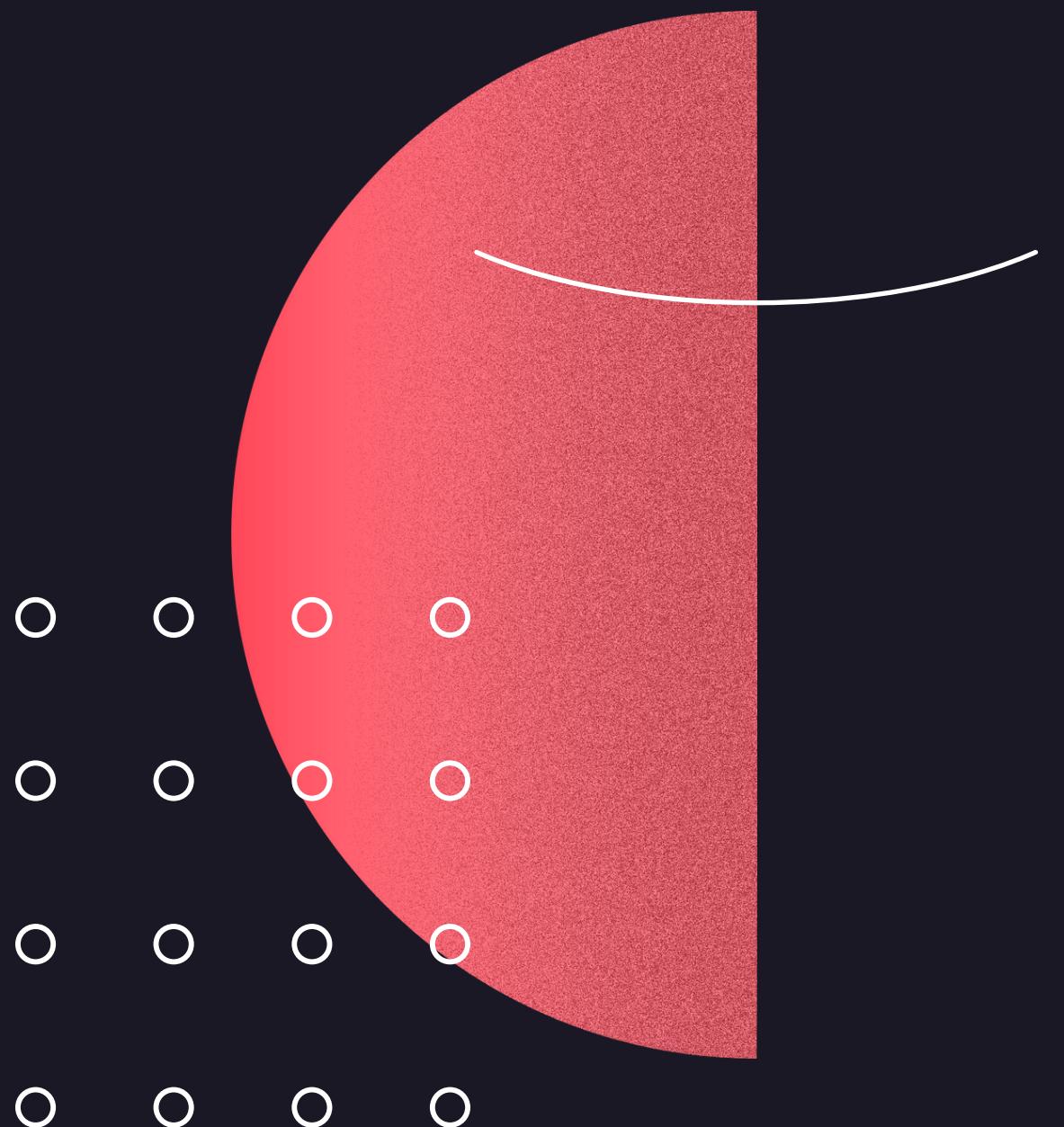
```
public void playGame(BasketBallTeam opponnet) {
    Random r = new Random();
    if(r.nextInt(2) == 1) {
        System.out.println(this.name + " won the game!!!!");
        this.wins++;
        opponnet.losses++;
    } else{
        System.out.println(opponnet.name + " won the game.");
        opponnet.wins++;
        this.losses++;
    }
}
```



NOW WE WILL MAKE A CLASS
TOGETHER. THAN CREATE
INSTANCES OF THAT CLASS (I.E
AN OBJECT)

**OBJECT
ORIENTED
PROGRAMMING
IS A PARADIGM
SHIFT
(DIFFERENT
TECHNIQUE OF
PROGRAMMING)**





Let's solve
Exercise 07_03
using OOP. (Move
to Netbeans).

If you are reading
this at home.
Email me and I
will send