CSE 11 Accelerated Intro to Programming Discussion Section 3

Ayon Biswas, Spring 2021

Logistics

- PA2 is due today
- PA3 released today
- PA2 resubmission will launched tomorrow and due after 2 weeks

Lecture recap

User defined data type
- data (fields) - methods - constructors - objects

- Classes
 - Combine simple pieces of data together into more complicated structures
 - For example, two integers can be used to represent a point in 2D space
- Constructors
 - It does not make sense to have a fixed x and y in the point class
 - We use constructors to create objects in the class
- Objects
 - Instances of the class
 - In many cases there are infinitely many objects
 - For example, the number of points is infinite

```
Point p1 = new Point (6,2)
class Point {
    int x;
  int y;
Point(int x, int y) {
     this.x = x;
                           p_1.z=2+p_2.z=3
p_1.y=3+p_2.y=5
     this.y = y;
    Point add(Point other) {
     return (new Point this.x) + other.x, this.y + other.y);
                              Point p3 = P1.add (P2)
p3.x= 5 p3.y=8
```

Lecture recap

int ()
$$= \frac{31}{2}$$
 by the $= \frac{31}{2}$ by the $=$

• int
$$\alpha = 2^{32}$$
;
• boolean $\beta = 2^{31}$;
• String

- double 🗲 Floating point number

 - Use with caution

 - double value1 = 1/2;
 - double value2 = 1.0/2;
- double value4 = 1.0/2.0;

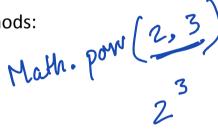
Not precise

double value3 = 1/2.0;

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Lecture recap

- Math library
 - https://docs.oracle.com/en/java/javase/15/docs/api/java.base/java/lang/Math.html
 - Lots of useful methods:
 - max/min
 - abs
 - pow
 - sqrt
 - log
 - ...



Inbuilt Math

PA3

- https://github.com/CSE11-SP21-Assignments/cse11-sp21-pa3-starter
- Due next Wednesday at 11:59pm PST
- Lots of stuff going on. Seek help if necessary
- Start early!

Thanks!