CSE 11
Accelerated Intro to Programming Discussion Section 9

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This discussion is being recorded

Logistics

- PA8 due today at 11:59PM

- PA9 released – due next Thursday

- Exam2
  - Thursday 9pm – Sunday 11:59pm

Exceptions

- Checked exceptions
  - Must be handle in some way (try/catch, throw clause)
  - Example: IOException

```
Class FileHelper {
  static String[] getLines(String path) {
    try {
      return Files.readAllLines(Paths.get(path)).toArray(String[]::new);
    }
    catch(IOException e) {
        System.err.println("Error reading file");
        return new String[]{"Error reading file"};
    }
  }
}
```

Exceptions

- Unchecked exceptions
  - Do not have to be handled
  - ArithmeticException
  - IndexOutofBoundsException
  - IllegalArgumentException
  - NullPointerException
  - …

Primitive types

- int, long, short, double, float, boolean, char, byte
  - Limited range and/or limited precision
  - Can use == to check for equality

```
int a = 1;
int b = 1;
boolean c = a == b; // true
```

Non-primitive types

- String, Point, TextTweet, ImageQuery, Array, ArrayList
  - == does not work as expected
  ```
  String a = "hello";
  String b = "hhello".substring(1);
  boolean c = a == b; // ???
  ```
  - Instead, use `equals` method to check equality
  ```
  String a = "hello";
  String b = "hhello".substring(1);
  boolean c = a.equals(b); // ???
  ```
  - Special case: Arrays
  ```
  int[] a = {1, 2, 3};
  int[] b = {1, 2, 3};
  boolean c = a.equals(b); // ???
  boolean d = Arrays.equals(a, b); // ???
  ```

Exam2

- Similar to Exam1 (programming + video)
- Cumulative
- Start early
- Read instructions carefully
- Follow instructions closely

PA9

Thanks!