

CSE 11

Accelerated Intro to Programming

Discussion Section 9

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This discussion is being recorded

Logistics

- PA9 released - due Thursday *No resubmission*
- Exam3
 - Friday

Exceptions

- Checked exceptions
 - Must be handled in some way (try/catch, throws 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
 - ...

↪ something is wrong with your code

```
int a;  
int b;  
int c = a / b;
```

Primitive types

- 32 bits* *64 bits* *16 bits* *64 bits* *32 bits* *1 bit* *8 bits* *8 bits*
- int, long, short, double, float, boolean, char, byte
 - Limited range and/or limited precision *π/e*

- 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; // ??? false
```

a → "hello"
b → "hello"

- Instead, use equals method to check equality

equals method

```
String a = "hello";  
String b = "hhello".substring(1);  
boolean c = a.equals(b); // ??? true
```

- Special case: Arrays

```
int[] a = {1, 2, 3};  
int[] b = {1, 2, 3};  
boolean c = a.equals(b); // ??? false  
boolean d = Arrays.equals(a, b); // ??? true
```

→ same as a == b

// import java.util.Arrays;

Exam3

- Similar to Exam1/2 (programming + video)
- Cumulative → Contents before exam1 might be covered
- Start early
- Read instructions carefully
- Follow instructions closely

photo id
PID
≤ 5 min

PA9

"CSE"

"CSE 11 is great"

"No, CSE 11 is hard"

"I love CSE"

1	3	5	
1	3	5	
2	4	↓	
2	4	6	8

1 2 3 4 5 6 8

Thanks!