

CSE 11

Accelerated Intro to Programming

Discussion Section 5

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This discussion is being recorded

Logistics

- PA4 due today at 11:59PM
- PA5 Released
- Exam next week

Arrays

- An ordered sequence of values
 - (int, double, String, YourClass, array, ...)
- Syntax of creating an array:

```
int[] nums1 = { 4, 2, 7 };  
int[] nums2 = {};  
int[] nums3 = new int[5];  
int[] nums4 = nums1;          // Be careful!!!  
String[] strs1 = { "Hello", "CSE11" };
```

- Array length:

```
int nums1Length = nums1.length;
```

Arrays cont'd

- Use index to access elements in an array:

```
int[] nums1 = { 4, 2, 7 };  
int firstElem = nums1[0]; // 4  
int secondElem = nums1[1]; // 2  
int thirdElem = nums1[2]; // 7  
int fourthElem = nums1[3]; // Index 3 out of bounds for length 3
```

- Modify elements in an array:

```
nums1[2] += 1; // nums1 becomes { 4, 2, 8 }
```

- Array length is fixed:

- Can modify elements, but cannot add/delete elements

- `nums1 = { 4, 2, 7, 8 }` // need to assign a different array

Main

- `public static void main(String[] args) { ... }`
- You saw this in PA0.5
- Entry point to a Java program
 - `javac DiscussionExamples.java`
 - `java DiscussionExamples`
 - There needs to be a main method in the class `DiscussionExamples`
- `args` – an array of Strings (command line arguments)
 - `java DiscussionExamples some some arguments`

Loop Basics

- How to access elements in a very very long array?

- Loops

- For-loop

```
for (int i = 0; i < arr.length; i++) {  
    System.out.println(arr[i]);  
}
```

- For-each loop

```
for (int element : arr) {  
    System.out.println(element);  
}
```

- While loop

```
int i = 0;  
while (i < arr.length) {  
    System.out.println(arr[i]);  
    i++;  
}
```

PA5

Thanks!