

Arrays and Collections

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Outline

- Arrays
- Iterator for loop
- Searching and Sorting
- Collections
- ArrayList and Vector
- CompareTo

Arrays

- A single object made up of elements
- Definition:
 - `<ElementType>[] <name>;`

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Arrays

- To construct an array object:
`= new <type>[<size>;`

```
int[] numbers = new int[10]; //creates a new array of integers
String[] sentences = new String[5]; //creates an array of references to Strings
//the Strings themselves have not been created yet
```

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Arrays

- Accessing an element

```
numbers[0] = 1;
numbers[1] = 33;

//constructing an array to go into the first element:
sentences[0] = new String("This is a sentence.");

if (numbers[0] == 1){
    //if the first number is 0 do something
}
--
```

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Arrays

- Explicit Initiation and Constants

```
<ElementType>[] name = {<exp1>, <exp2>,
    <exp3>, ...};
```

```
int[] sequence = {1, 7, 19, 259, 65539}; //explicit definition
//constant:
final int[] binarySequence = {2, 4, 8, 16, 32, 64, 128, 256};
```

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