

Advanced Java Arrays

CS 1400 - 2022
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Advanced Java Arrays

- ▶ Besides assigning individual values via index, arrays can be created with all values assigned
- ▶ This is called the initialization sequence
- ▶ The process to do this depends on where the array variable is declared, the simple version works for local variables and the more involved version works for data members

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Array Initialization Sequence

- ▶ Arrays can be initialized with all values in one fell swoop
- ▶ Declare the t/Type of array, the "keyword" and then after the assignment operator a set of squiggles with commas separating the values
- ▶ This is only valid for assigning directly at creation of the array so for local variables only!!

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Local variable initialization

```
private void demo()
{
    int [] numbers = {1, 2, Integer.MAX_VALUE, 0};
    String [] myWords = {"Any", "String", null, "value", "will do!"};
    for (int number : numbers)
    {
        System.out.println(number);
    }
    for (String word: myWords)
    {
        System.out.println(word);
    }
}
```

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Declare and then initialize

- ▶ If you want to use an array as a data member the previous version does not work!
- ▶ Declare the array as a data member – same as always
- ▶ But when you initialize the data member you do not put the initialization sequence!
- ▶ Instead you use the new keyword, the Type and an empty set of square brackets followed by the initialization sequence!!!

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Data member initialization

```
private String [] words;
public Controller()
{
    String word = "[ ] sounds like sub";
    String anotherString = "Java Arrays use subscript notation";
    String yetAnother = "CS Rocks!";
    words = new String [] {word, anotherString, yetAnother};
}
```

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