

Java Arrays Part 1 Notes

Team Treehouse

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1 Meet Arrays

2 Declaring Arrays

- **Syntax:** *DATA_TYPE[] VAR_NAME = new DATA_TYPE[SIZE]*

Example:

```
1 String[] friends = new String[3];  
2
```

- Default values
 - *byte*: 0
 - *short*: 0
 - *int*: 0
 - *long*: 0L
 - *float*: 0.0f
 - *double*: 0.0d
 - *char*: '    '
 - *String* (or any object): null
 - *boolean*: false

3 Quiz 1

1. Which of the following statements would create an array named planets with 9 String elements?

- A. `String planets = new Array(9);`
- B. `String[] planets = new String[9];`
- C. `Array[] planets = new String[9];`
- D. `String[] planets = new String(9);`

Answer: B

2. When you create a String array like this:

```
1 String[] goldenGirls = new String[4];  
2
```

What will the values be initialized to?

- A. ""
- B. null
- C. 0

Answer: B

4 Accessing Items

- **Syntax:** `ARR_VAR_NAME[INDEX]`

Example:

```
1 String[] friends = {"Pasan", "Johnathan", null};  
2 System.out.println(friends[0] + " is my classmate");  
3
```

5 Quiz 2

1. Choose the code that will retrieve the last element in the following array:

```
1 String[] goldenGirls = new String[4];  
2 goldenGirls[0] = "Blanche";  
3 goldenGirls[1] = "Sophia";  
4 goldenGirls[2] = "Rose";  
5 goldenGirls[3] = "Dorothy";  
6
```

- A. `goldenGirls[goldenGirls.length - 1];`
- B. `goldenGirls[4]`
- C. `goldenGirls.getLast();`

Answer: A

2. What code would get the first item from this array?

```
1 String[] reminders = {"Baby", "Years"};  
2
```

What will the values be initialized to?

- A. `reminders[1];`
- B. `reminders[0];`
- C. `reminders0;`

Answer: B

3. Considering the following code in the jShell REPL:

```
1 jshell> beatles  
2 beatles ==> String[4] { "John", "Paul", "George", "Ringo" }  
3  
4 jshell> System.out.println(beatles[1]);  
5
```

What would be printed?

- A. John
- B. Paul
- C. Ringo

Answer: B

6 Array Literal Shortcut

- **Syntax:** *Data_Type[] ARR_VAR_NAME = { VAL_1, VAL_2, ... VAL_N }*

```
1 String[] snacks = {"nachos", "Cheetos", "Large Popcorn"};
2
```

- **Syntax 2:**

DATA_TYPE[] ARR_VAR_NAME;

ARR_VAR_NAME = DATA_TYPE[] { VAL_1, VAL_2, ... VAL_N }

- Must know values at run time

```
1 String[] snacks;
2 snacks = String[] {"nachos", "Cheetos", "Large Popcorn"}
3
```

7 Exercise 4

- Solution included in *exercise_4.java*