# Java Arrays Part 1 Notes

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# 1 Meet Arrays

# 2 Declaring Arrays

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

  **Example:**

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

- Defeault values

  - *byte*: 0
  - *short*: 0
  - *int*: 0
  - *long*: 0L
  - *float*: 0.0f
  - *double*: 0.0d
  - *char*: '$\breve{0}$000'
  - *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:

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

```

   What will the values be initialized to?

   A. ""

   B. null

   C. 0

   **Answer:** B

# 4  Accessing Items

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

   **Example:**

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

```

# 5    Quiz 2

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

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

```

    A. goldenGirls[goldenGirls.length - 1];

    B. goldenGirls[4]

    C. goldenGirls.getLast();

**Answer:** A

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

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

```

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:

```java
jshell> beatles
beatles ==> String[4] { "John", "Paul", "George", "Ringo" }

jshell> System.out.println(beatles[1]);

```

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 1

- Solution included in *exercise_1.java*