

# Java Programming Lab Manual

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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

# **JAVA PROGRAMMING LAB MANUAL**

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**Editors**

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## Chapter 16

### Arrays in Java

**Waseem Javaid Soomro, Zeeshan Bhatti, Asadullah Shah**

#### Abstract

Array is a collection of similar data types or it can be defined as a block of consecutive memory locations that hold values of the same data type. The use of arrays in programming has been implemented since beginning. In this experiment students will practice arrays and learn and discuss arrays along with their various types and structure.

#### 16.1 Array Basic

In Java an array is an ordered collection of data types, object references or other arrays of the same type. Java arrays are homogenous: means all array elements must be of same type. For example if your program needs to deal with 100 integers, 365 real numbers, etc., you will use an array. To create an array, you must follow three steps:

1. Declaration
2. Construction
3. Initialization

##### 16.1.1 Array Declaration

Declarations tells the compiler the array's name and what type its elements will be:

```
<data type> [ ] <variable> //variation 1
```

```
<data type> <variable>[ ] //variation 2
```

For example: