

# Array Summary

# Array

- Represent a list of Same data type
- Everything can be represent as array in Java
- Created with a initial value
- Is an “object” so it will allocate memory

# Array Format

- You can have
  - `int[], float[], double[]`
  - `boolean[], String[]`
  - The object you created array
    - `Student[], Score[]`

# Initial an array

- When array is initial created it is empty
- It just provides a container to store value
- For primitive type all value goes to the default when created
  - int, short, long, default value is 0
  - float, double default value is 0.0
  - boolean is false
  - The object you created is null value

# Access an Array

- Access an element in array with its index
- Array start with index 0

# Go through an array

- Looping with for or while
- You can start at any index
- DO NOT go across the index boundary
- The index boundary is array length - 1

**Index**

0

1

2

3

4

5

6

7

**int array**

7

4

5

3

11

9

3

1

# Example Code

```
public class MyProgram {  
    public static void main(String[] args) {
```

```
// create an int array of size 10. You can store 10 integer here  
int[] intArray = new int[10];
```

```
    }  
}
```



# Example Code

```
public class MyProgram {  
    public static void main(String[] args) {
```

```
        // create an int array of size 10. You can store 10 integer here  
        int[] intArray = new int[2];  
        intArray[0] = 1;  
        intArray[1] = 2;
```

```
    }
```

```
}
```

# Example Code

```
public class MyProgram {  
    public static void main(String[] args) {
```

```
// create an int array of size 10. You can store 10 integer here  
int[] intArray = new int[2];  
intArray[0] = 1;  
intArray[1] = 2;  
System.out.println(intArray.length);
```

```
}
```

```
}
```

**Print out 2**

# Since Array is an object

## Important attribute

- `object.length`

```
public class MyProgram {  
    public static void main(String[] args) {
```

```
        // create an int array of size 10. You can store 10 integer here  
        int[] intArray = new int[10];
```

```
        for (int i = 0; i < intArray.length; i++) {  
            intArray[i] = i + 1;  
        }
```

```
        for (int j = 0; j < intArray.length; j++) {  
            System.out.println(intArray[j] + " ");  
        }
```

```
    }
```

```
}
```

**Print out 1 2 3 4 5 6 7 8 9 10**