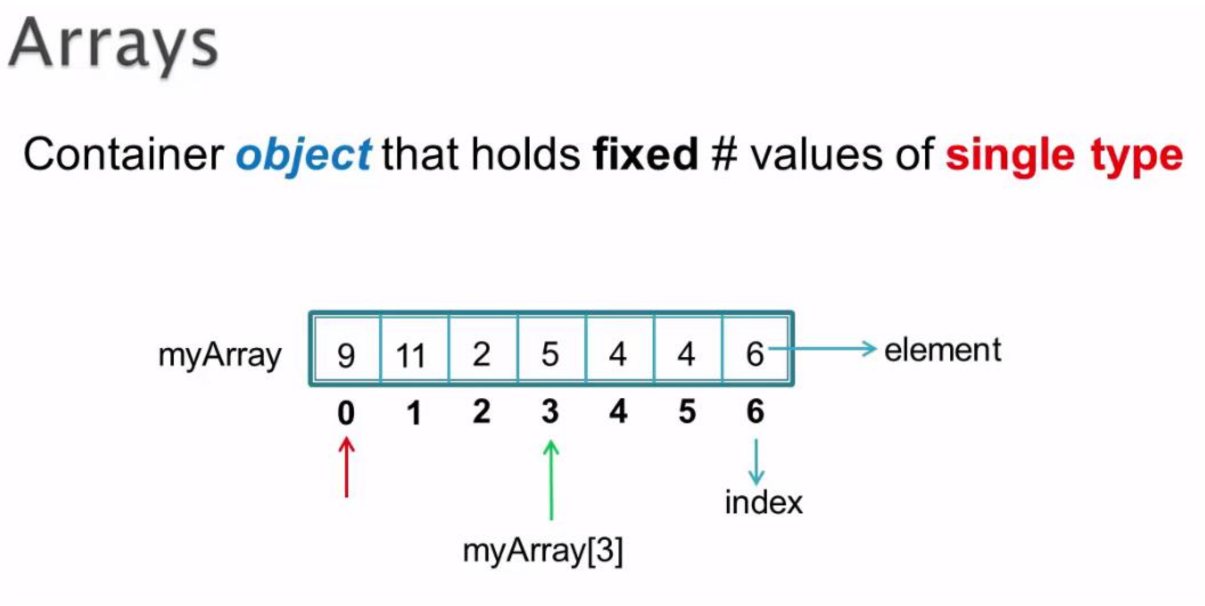
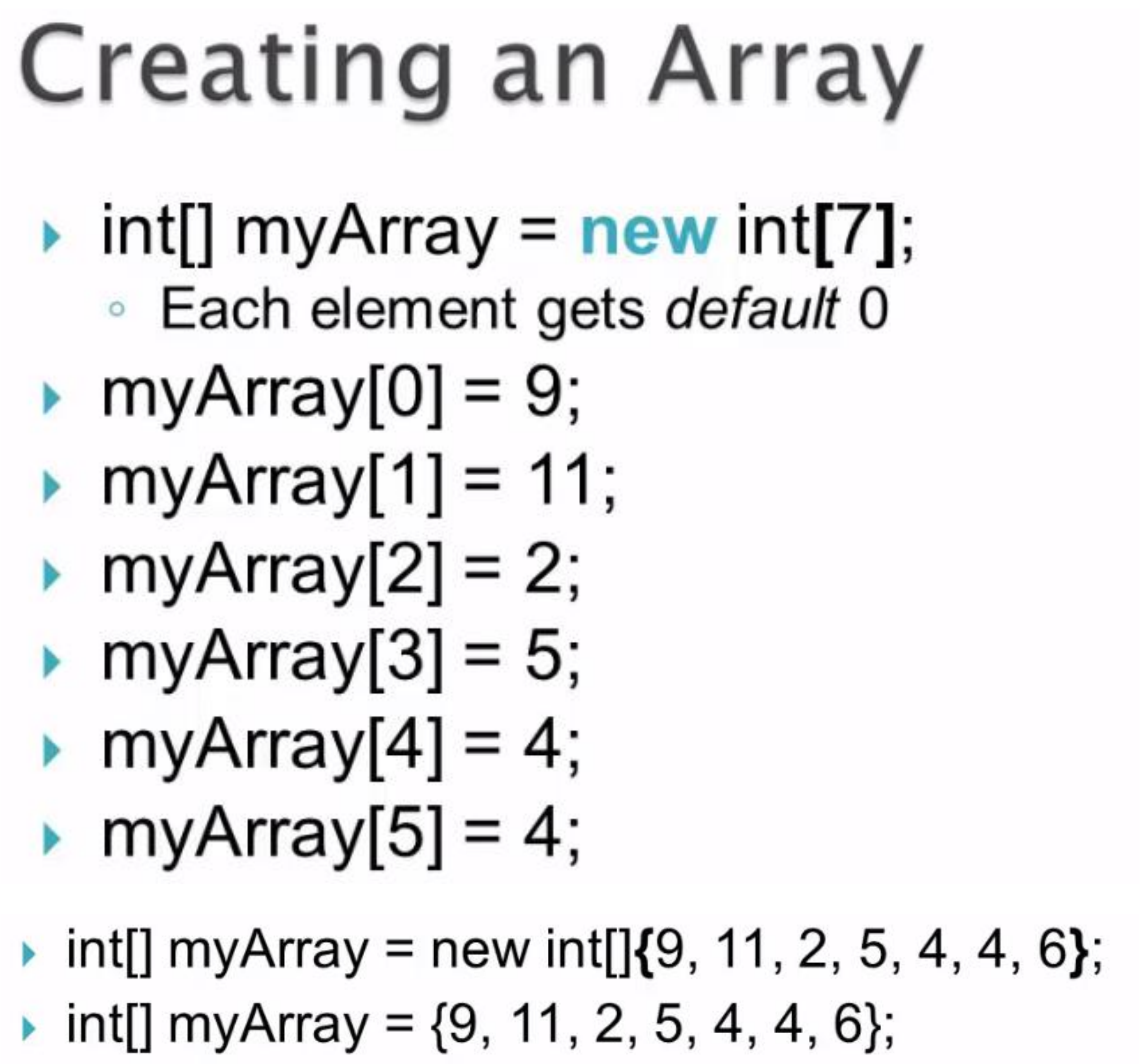


Arrays

Container ***object*** that holds **fixed** # values of **single type**

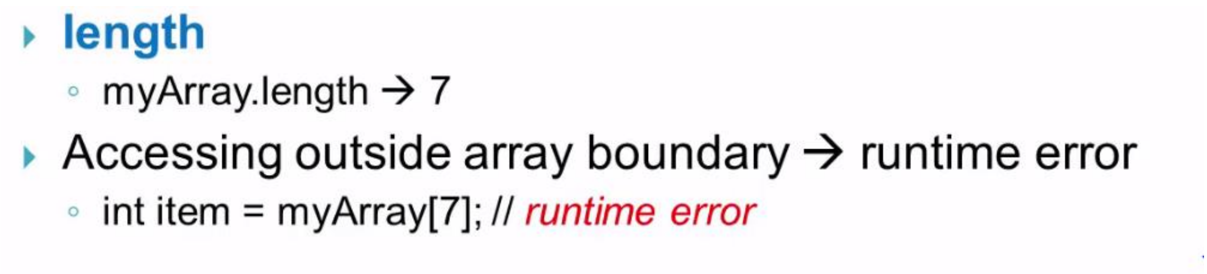
myArray	9	11	2	5	4	4	6
	0	**1**	**2**	**3**	**4**	**5**	**6**



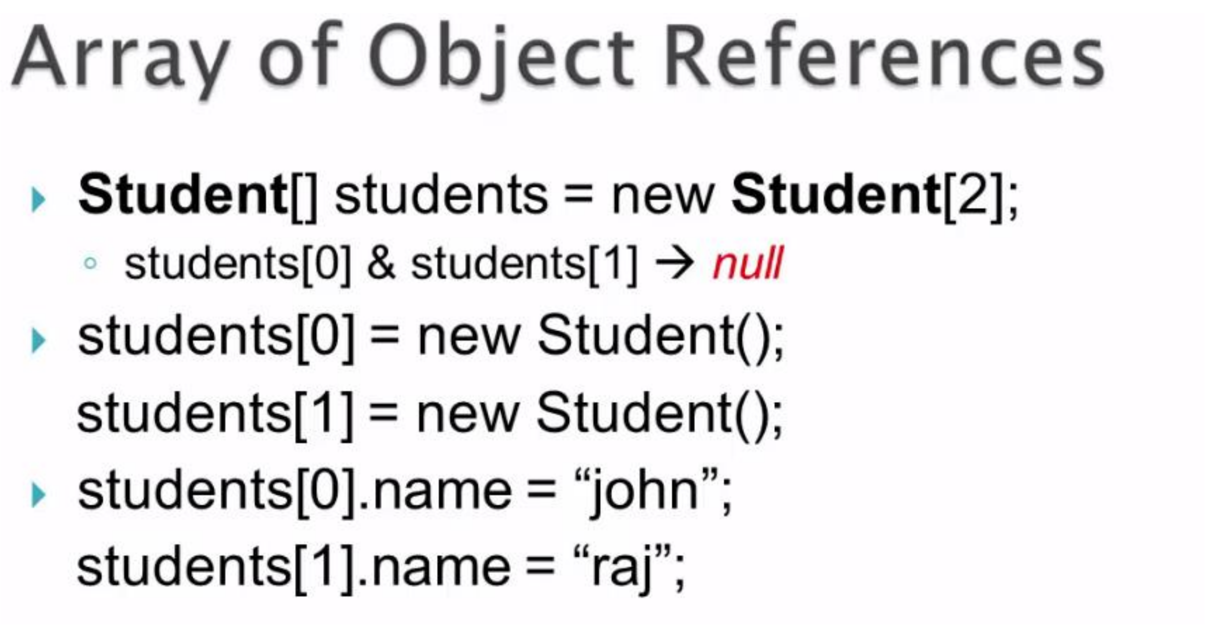
Creating an Array

- int[] myArray = **new** int**[7]**;
  - Each element gets *default* 0
- myArray[0] = 9;
- myArray[1] = 11;
- myArray[2] = 2;
- myArray[3] = 5;
- myArray[4] = 4;
- myArray[5] = 4;

- int[] myArray = new int[]**{**9, 11, 2, 5, 4, 4, 6**}**;
- int[] myArray = {9, 11, 2, 5, 4, 4, 6};

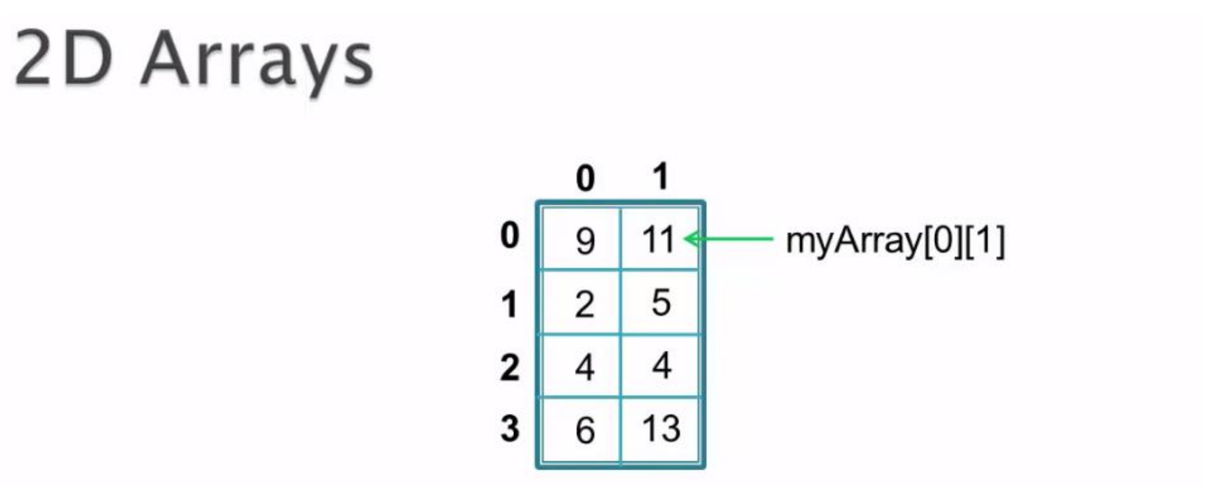


- **length**
  - myArray.length → 7
- Accessing outside array boundary → runtime error
  - int item = myArray[7]; // *runtime error*



Array of Object References

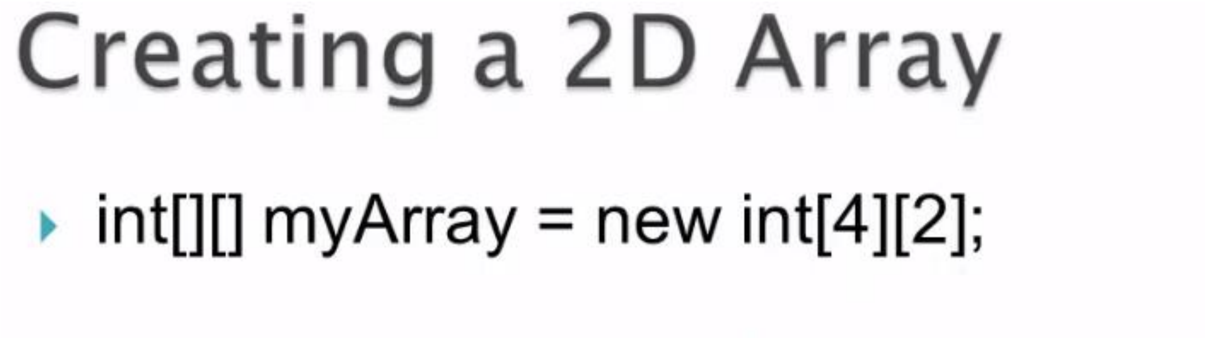
- **Student**[] students = new **Student**[2];
  - students[0] & students[1] → *null*
- students[0] = new Student();
  students[1] = new Student();
- students[0].name = “john”;
  students[1].name = “raj”;



2D Arrays

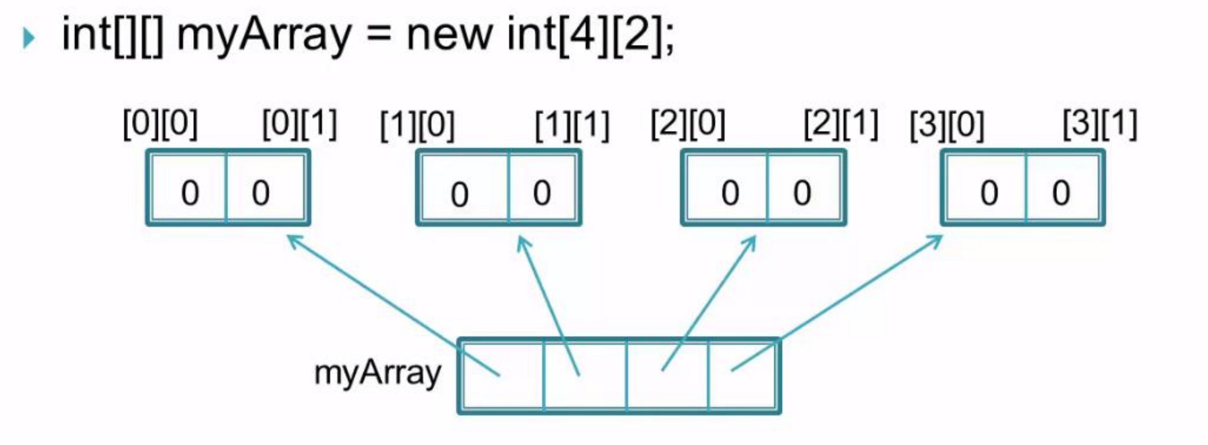
	0	**1**
0	9	11
1	2	5
2	4	4
3	6	13

myArray[0][1]

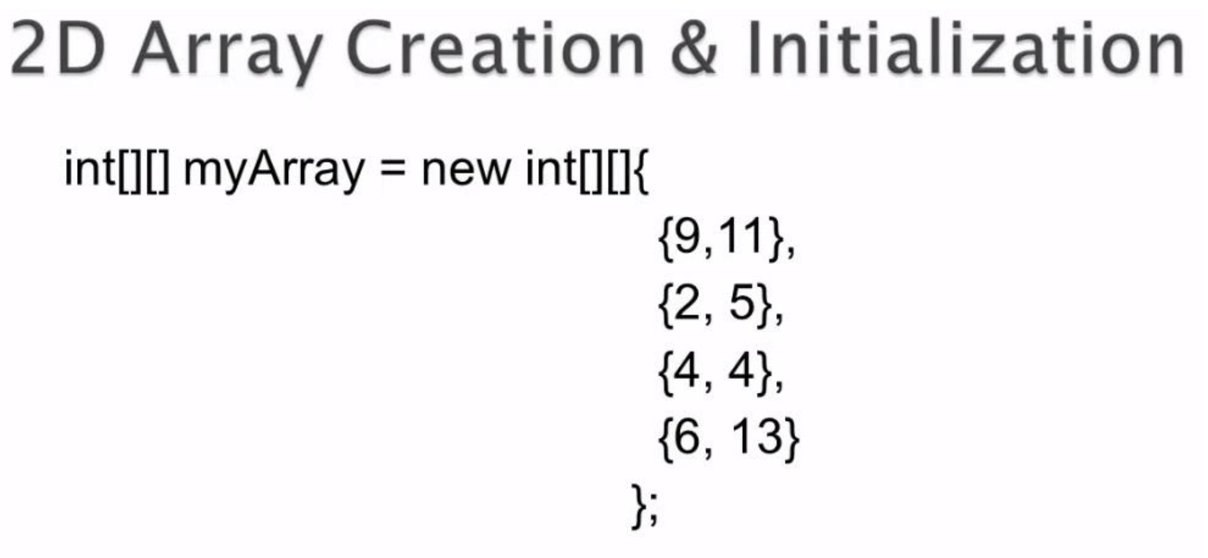


Creating a 2D Array

- int[][] myArray = new int[4][2];

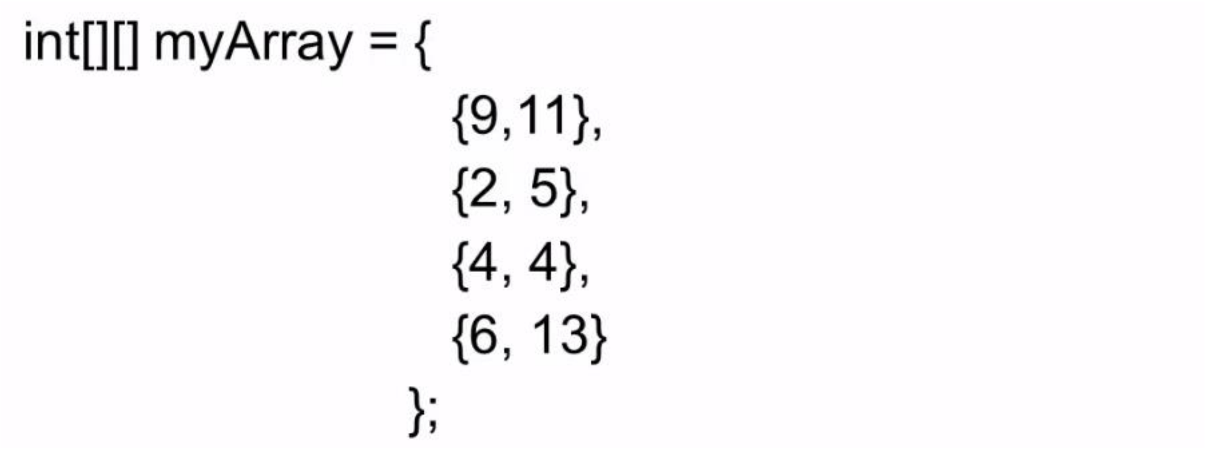


- int[][] myArray = new int[4][2];



2D Array Creation & Initialization

```
int[][] myArray = new int[][]{
                                {9,11},
                                {2, 5},
                                {4, 4},
                                {6, 13}
                              };
```



```
int[][] myArray = {
                    {9,11},
                    {2, 5},
                    {4, 4},
                    {6, 13}
                  };
```