

Chapter Six

Arrays

Creating an array

- `int [] someArray;`
`someArray = new int[10];`
- `int [] someArray = new int[10];`
- `int [] someArray={2,4,5,2,1,6,7,3,9,2};`

Accessing array elements

- ```
for(int i=0;i<7;i++)
{
 String s=JOptionPane.showInputDialog(null,"enter number: "+i);
 someArray[i]=Integer.parseInt(s);
}
```
- ```
System.out.println(someArray.length);//returns the size of the array
```
- ```
for(int i=0 ; i < someArray.length ; i++)
{
 String s=JOptionPane.showInputDialog(null,"enter number: "+i);
 someArray[i]=Integer.parseInt(s);
}
```

# Passing arrays as parameters

- ```
static void enterTemps(double [ ] temperatureIn)
{
    for(int i=0; i<temperatureIn.length; i++)
    {
        String s=JOptionPane.showInputDialog(null,"enter temperature");
        temperatureIn[i] = Double.parseDouble(s);
    }
}
```

Returning an array from a method

```
static double[ ] enterTemps()
{
    double [ ] temperatureOut = new double[7];
    for(int i=0; i<temperatureOut.length;i++)
    {
        String s=JOptionPane.showInputDialog(null, " enter temperauter: ");
        temperatureOut[i]=Double.parseDouble(s);
    }
    return temperatureOut;
}
```

Multidimensional array

- `Double [] [] temperature;`
`Temperature = new double [4] [7];`
- `int [] [] Array2= {`
`{2, 11, -5},`
`{-3, 4, 23},`
`};`

- Example:

```
int [ ] [ ] someArray=new int [3][4];
for(int i=1; i < = someArray.length; i++)
{
    for(int j=1; j< =someArray[i].length; j++)
    {
        s=JOptionPane.showInputDialog(null,"enter a number");
        someArray[i][j]=Integer.parseInt(s);
        System.out.print(someArray[i][j]+" ");
    }
    System.out.println();
}
```

Ragged array

- `Char [] [] animals=new char[] []`
`{`
 `{'m','o','n','k','e','y'},`
 `{'c','a','t'},`
 `{'b','i','r','d'}`
`};`