public class DoingIt{

public void lab1( ){

//initialiser list: initialising the elements of arrays with a small number of elements

//String: element type

//car: array name

String [ ] cars={“BMW”, “AUDI”, “MERCEDES BENZ”, “PORSCHE”};

//length: a public final class level variable named length

The length of elements in the array

Applicable to an array but not for string objects

//[index]

The first element of an array has the index: 0

The last element of an array has the index: length-1

System.out.println (cars[cars.length-3]);

//length(): a method of the String class

returns the number of characters present in the string

int len1=cars[0].length();

int len2=cars[1].length();

int len3=cars[2].length();

int len4=cars[3].length();

int total=len1+len2+len3+len4;

System.out.println(total);

}

public void lab2{

//String: element type

//myStringArray: array name

//[3]: [length]

//declaring an array:

elemType [ ] arrayName;

arrayName = new elemType [length];

OR:

elemType[ ] arrayName = new elemType [length];

String[ ] myStringArray;

myStringArray=new String[3];

//set an element value

myStringArray[0]= “green”;

Sysyem.out.println (myStringArray[0].length());

}

public void lab3(){

//Arraylist class: a resizable array (can be found in java.util package)

//syntax: ArrayList <Type> arrayListName = new ArrayList <Type> ( );

//for every primitive type, Java provides an equivalent reference type in java.lang package (int🡪Integer double🡪Double Boolean🡪Boolean float🡪Float)

//< >: shortcut syntax that saves coding the generic type twice

ArrayList<Float> arrList = new ArrayList< >( );

//Math.random ( ) method returns a pseudorandom double type number greater than or equal to 0.0 and less than 1.0)

//ArrayList.add (int index, E element) method inserts the specified element E at the specific position in this list

arrList.add ((float)Math.random( )\*10);

//ArrayList.remove ( int index) method removes the element at the specified position in this list

arrList.remove (1);

//set( ) can only replace existing element, not add new element

arrList.set (arrList.size( )-1, (float)Math.random( )\*10);

}

public void lab4( ){

String s= “ELEphANt”;

//toLowerCase( ) method converts a string to lowercase letters

String sLower=s.toLowerCase( );

//substring( ) method extracts the characters from a string, between two specified indexes (including “start”, not including “end”)

String firstLetter = sLower.substring (0,1);

String newFirstLetter = firstLetter.toUpperCase( );

// substring( ) method extracts the characters from a string, from the start to the end of the string

String rest=sLower.substring(1);

String newS=newFirstLetter+rest;

System.out.println (newS);

}

public void lab5( ){

String bear = “\ud83d\udc3b”;

String s1=bear;

String s2=bear+bear;

String s3=bear+bear+bear;

String s4=bear+bear+bear+bear;

// %: indicate the position of a placeholder in the format string

//5 (format instruction): pad with spaces to its left if it’s less than 5 in length

//s: String

// \n: control character (new line)

System.out.println (String.format(“%5s\n%6s\n%7s\n%8s”, s1,s2,s3,s4));

}

}