**PROGRAM-69**

//Program for use of various arithmetic, logical ,bitwise, unary, ternary, assignment operators and understand their precedence and hierarchy (L to R, R to L).

**2//To create 500 random numbers (range 1 to 500) and store them in an array, sort the array and display the sorted array using enhanced-for loop**

3**//To demonstrate shallow Cloning and Deep Cloning by overriding the clone() method of object class.**

class Student implements Cloneable{

int rollno;

String name;

Student(int rollno,String name){

this.rollno=rollno;

this.name=name;

}

public Object clone()throws CloneNotSupportedException{

return super.clone();

}

public static void main(String args[]){

try{

Student s1=new Student18(101,"amit");

Student s2=(Student18)s1.clone();

System.out.println(s1.rollno+""+s1.name);

System.out.println(s2.rollno+""+s2.name);

}catch(CloneNotSupportedException c){}

}

}

**Output:-**

Output:101 amit

101 amit

**4//Demonstrate the functions available in StringBuilder/StringBuffer classes.**

//append()

class StringBufferExample{

public static void main(String args[]){

StringBuffer sb=new StringBuffer("Hello ");

sb.append("Java");//now original string is changed

System.out.println(sb);//prints Hello Java

}

}

//insert()

class StringBufferExample2{

public static void main(String args[]){

StringBuffer sb=new StringBuffer("Hello ");

sb.insert(1,"Java");//now original string is changed

System.out.println(sb);//prints HJavaello

}

}

//replace()

class StringBufferExample3{

public static void main(String args[]){

StringBuffer sb=new StringBuffer("Hello");

sb.replace(1,3,"Java");

System.out.println(sb);//prints HJavalo

}

}

//delete()

class StringBufferExample4{

public static void main(String args[]){

StringBuffer sb=new StringBuffer("Hello");

sb.delete(1,3);

System.out.println(sb);//prints Hlo

}

}

//reverse()

class StringBufferExample5{

public static void main(String args[]){

StringBuffer sb=new StringBuffer("Hello");

sb.reverse();

System.out.println(sb);//prints olleH

}

}

//capacity()

class StringBufferExample6{

public static void main(String args[]){

StringBuffer sb=new StringBuffer();

System.out.println(sb.capacity());//default 16

sb.append("Hello");

System.out.println(sb.capacity());//now 16

sb.append("java is my favourite language");

System.out.println(sb.capacity());//now (16\*2)+2=34 i.e (oldcapacity\*2)+2

}

}

**5//Reversing a string (check palindrome)**

**6//Conversion to UpperCase/LowerCase**

7**//To capitalize the first letter of every word in that String.**

**8//To capitalize all the characters at all the odd indexes in the string e.g. at index 1, 3, 5 etc.**