**//Write a program to split an array**

**import** java.util.Arrays;

**public** **class** ArraySplit {

**public** **static** **void** main(String[] args) {

**int**[] numbers = **new** **int**[]{4,5,1,8,7,3};

// Arrays.copyOfRange(array,from,to)

//from - the initial index of the range to be copied, inclusive

//to - the final index of the range to be copied, exclusive. (This index may lie outside the array.)

**int**[] arr1=Arrays.*copyOfRange*(numbers, 0,2);

System.*out*.println(arr1[0]);

System.*out*.println(arr1[1]);

**int**[] arr2=Arrays.*copyOfRange*(numbers, 2,4);

System.*out*.println(arr2[0]);

System.*out*.println(arr2[1]);

**int**[] arr3=Arrays.*copyOfRange*(numbers, 4,6);

System.*out*.println(arr3[0]);

System.*out*.println(arr3[1]);

}

}

**Write a program to change the case of a character to opposite case in a given String**

Ex:

Input : THis is cRAZy

Output: thIS IS CrazY

**public** **class** ChangeCaseInString {

**public** **static** **void** main(String[] args) {

/\*Input : THis is cRAZy

Output: thIS IS CrazY\*/

**char** ch;

String str="THis is cRAZy";

StringBuffer sb=**new** StringBuffer();

**for**(**int** i=0;i<str.length();i++)

{

ch=str.charAt(i);

**if**(Character.*isAlphabetic*(ch))

{

ch=str.charAt(i);

**if**(Character.*isUpperCase*(ch))

{

sb.append(Character.*toLowerCase*(ch));

}

**else**

{

sb.append(Character.*toUpperCase*(ch));

}

}

**else**

{

sb.append(ch);

}

}

System.*out*.println("Input: " + str);

System.*out*.println("Output: " +sb);

}

}

**Write a program to find the factorial of a given number using recursive function**

**public** **class** FactorialRecursion

{

**public** **static** **int** fact(**int** n)

{

**if**(n == 1){

**return** 1;

}

**return** n \* (*fact*(n-1));

}

**public** **static** **void** main(String[] args) {

System.*out*.println(*fact*(5));

}

}

**Write a program to find the Highest number in an array and also find the position(index)**

**public** **class** HighestNumberInArray {

**public** **static** **void** main(String[] args) {

**int** arr[]={3,5,8,1,7,2};

**int** highest=arr[0];

**int** index=0;

**for**(**int** i=1;i<arr.length;i++)

{

**if**(arr[i]>highest)

{

highest=arr[i];

index=i;

}

}

System.*out*.println("Highest Number:" + highest);

System.*out*.println("at the index " + index);

}

}

**Write a program to find the Lowest number in an array and also find the position(index)**

**public** **class** LowestNumberInArray {

**public** **static** **void** main(String[] args) {

**int** arr[]={3,5,8,1,7,2};

**int** lowest=arr[0];

**int** index=0;

**for**(**int** i=1;i<arr.length;i++)

{

**if**(arr[i]<lowest)

{

lowest=arr[i];

index=i;

}

}

System.*out*.println("Lowest Number:" + lowest);

System.*out*.println("at the index :" + index);

}

}

**Write a program to launch Notepad**

**import** java.io.IOException;

**class** OpenNotepad {

**public** **static** **void** main(String[] args) {

Runtime rs = Runtime.*getRuntime*();

**try** {

rs.exec("notepad");

}

**catch** (IOException e) {

System.*out*.println(e);

}

}

}

**Write a program to Reverse a given String also sort the characters in the given string**

**public** **class** ReverseAndSort {

**public** **static** **void** main(String[] args) {

String str="Hello Chennai";

StringBuffer str1 = **new** StringBuffer(str);

System.*out*.println(str1.reverse());

//to put it in a string

str=str1.reverse().toString();

System.*out*.println(str);

//code to sort

**char**[] charArray = str.toCharArray();

Arrays.*sort*(charArray);

str=**new** String(charArray);

System.*out*.println(str);

}

}

**Write a program to find the Perfcet Square**

**class** PerfectSquare

{

**public** **static** **void** main(String args[])**throws** IOException

{

System.*out*.println("Enter number");

Scanner in = **new** Scanner(System.*in*);

**int** num = in.nextInt();

**int** sq = 0;

**for**(**int** i=1; i<(num/2); i++)

{

**if**((i\*i) == num)

{

sq = i;

**break**;

}

}

**if**(sq == 0) System.*out*.println("Not a perfect square");

**else** System.*out*.println( num + " is perfect square");

}

}

**Write a program to swap integer values present in a String**

Ex String s1=”10”;

String s2=”20”;

o/p- s1=20,s2=10

**public** **class** StringIntegerSwap {

**public** **static** **void** main(String[] args) {

String s1="5";

String s2="10";

System.*out*.println(s1);

System.*out*.println(s2);

s2=Integer.*toString*(Integer.*parseInt*(s1)+Integer.*parseInt*(s2));

s1=Integer.*toString*(Integer.*parseInt*(s2)-Integer.*parseInt*(s1));

s2=Integer.*toString*(Integer.*parseInt*(s2)-Integer.*parseInt*(s1));

System.*out*.println(s1);

System.*out*.println(s2);

}

}

**Write a program to reverse a given String with reverse() and without reverse()(3-ways)**

**public** **class** StringReverse3Ways {

**public** **static** **void** main(String args[]) {

//original string

String str = "JingiLala";

//1st way-reversing the string using Stringbuffer

String revStr = **new** StringBuffer(str).reverse().toString();

System.*out*.println("Reversed String using StringBuffer: " + revStr);

//2nd way-reversing the string iterative method to reverse String in Java

revStr = *reverse*(str);

System.*out*.println("Reverse String in Java using Iteration: " + revStr);

//recursive method to reverse String in Java

revStr = *strReverseRecurion*(str);

System.*out*.println("Reverse String in Java using Recursion: " + revStr);

}

**public** **static** String reverse(String str) {

StringBuilder strBuilder = **new** StringBuilder();

**char**[] charArr = str.toCharArray();

**for** (**int** i = charArr.length - 1; i >= 0; i--) {

strBuilder.append(charArr[i]);

}

**return** strBuilder.toString();

}

**public** **static** String strReverseRecurion(String str) {

**if** (str.length() < 2) {

**return** str;

}

**return** *strReverseRecurion*(str.substring(1)) + str.charAt(0);

}

}

**Write a program to create 2 threads and 1 thread should print odd numbers b/w 1-200 and another thread should print even numbers b/w 1-200**

**1st way**

**class** Thread10 **extends** Thread{

**public** **void** run(){

**for**(**int** i=1;i<=500;i+=2)

{

System.*out*.println(i);

}

}

}

**class** Thread20 **extends** Thread

{

**public** **void** run()

{

**for**(**int** i=2;i<=500;i+=2)

{

System.*out*.println(i);

}

}

}

**class** TwoThreads {

**public** **static** **void** main(String[] args)

{

Thread10 t1=**new** Thread10();

t1.start();

Thread20 t2=**new** Thread20();

t2.start();

}

}

**2nd way**

**public** **class** TwoThreads2 {

**public** **static** **void** main(String[] args) {

Runnable r1=**new** Thread1();

Thread t1=**new** Thread(r1);

t1.start();

Runnable r2=**new** Thread2();

Thread t2=**new** Thread(r2);

t2.start();

}

}

**class** Thread1 **implements** Runnable{

**public** **void** run(){

**for**(**int** i=1;i<=500;i+=2)

{

System.*out*.println(i);

}

}

}

**class** Thread2 **implements** Runnable{

**public** **void** run(){

**for**(**int** i=2;i<=500;i+=2)

{

System.*out*.println(i);

}

}

}