ASSIGNMENT - II

TOPIC – 1

JAVA

CODING PROGRAM

SUBMITTED

BY

LOGESHWARAN S (LOKI)

TENTACLES TECHNOLOGY

ON 15-04-2023

**C O N T E N T S**

|  |  |  |
| --- | --- | --- |
| **EX.NO** | **EXERCISE** | **PAGE** |
| 1 | Counting duplicate characters | (✓) |
| 2 | Finding the first non-repeated character | (✓) |
| 3 | Reversing letters and words | (✓) |
| 4 | Checking whether a string contains only digits | (✓) |
| 5 | Counting vowels and consonants | (✓) |
| 6 | Counting occurrences of a certain character | (✓) |
| 7 | Converting String into int, long, float, or double | (✓) |
| 8 | Removing white spaces from a string | (✓) |
| 9 | Joining multiple strings with a delimiter | (✓) |
| 10 | Generating all permutations | (✓) |
| 11 | Checking whether a string is a palindrome | (✓) |
| 12 | Removing duplicate characters | (✓) |
| 13 | Removing given characters | (✓) |
| 14 | Finding the character with the most appearances | (✓) |
| 15 | Sorting an array of strings by length | (✓) |
|  |  |  |
|  |  |  |

**EXERCISE 1 : COUNTING DUPLICATE CHARACTERS.**

**Write a program that counts duplicate characters from a given string.**

**CODE:**

public class countduplicate {

      public static void main(String[] args)

       {

          char c;

          int strLen;

          int i, j, k , num, count;

          int rc=0;

          String name = "lokesh loki";

          System.out.println("\n\n Here my String : "+name);

        strLen = name.length();

         char[] arr = new char[strLen];

          for(i=0; i<strLen; i++)

           arr[i] = name.charAt(i);

          for(i=0; i<strLen; i++)

          {

             c = arr[i];

            count = 0;

             for(j=(i+1); j<strLen; j++)

             {

                if(c==arr[j])

                {

                   count++;

                   for(k=j; k<(strLen-1); k++)

                      arr[k] = arr[k+1];

                   strLen--;

                   j--;

                }

             }

             if(count>0)

                rc++;

          }

  System.out.println("\n Count of duplicated Characters = " +rc);

       }

    }

**OUTPUT :**

**Here my String : lokesh loki**

Here my String : lokesh loki

Count of duplicated Characters = 3

**Count of duplicated Characters = 3**

**EXERCISE 2 : FINDING THE FIRST NON-REPEATED CHARACTER**

**Write a program that returns the first non-repeated character from a given string.**

**CODE:**

public class firstnonrepeat

{

  public static void main(String [] args)

    {

            String name = "loki lokesh";

            System.out.println("Here my String : " + name);

            System.out.println("Non Repeated Character in String :" );

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

            {

                boolean u = true;

                for (int j = 0; j < name.length(); j++)

                {

                    if (i != j && name.charAt(i) == name.charAt(j))

                    {

                        u = false;

                    }

                }

                if (u)

                {

                    System.out.println(name.charAt(i));

                    break;

                }

            }

        }

    }

**OUTPUT :**

Here my String : loki lokesh

Non Repeated Character in String :

i

**EXERCISE 3 : REVERSING LETTERS AND WORDS**

**Write a program that reverses the letters of each word and a program that reverses the letters of each word and the words themselves.**

**CODE:**

public class reverseletter

{

    public static void main(String[] args)

       {

         String name = "loki 2023 ";

          System.out.println("\n\n This is my String: " +name);

          StringBuilder sb = new StringBuilder(name);

          sb.reverse();

          String strReverse = sb.toString();

          System.out.println("\nReverse = " +strReverse);

       }

}

**OUTPUT :**

This is my String: loki 2023

Reverse string = 3202 ikol

**Write a program that checks whether the given string contains only digits.**

**EXERCISE 4 : CHECKING WHETHER A STRING CONTAINS ONLY DIGITS**

**CODE:**

public static void main(String[] args)

      {

        String name = "2023";

        System.out.println("\n Here my String : "+name);

            System.out.println(check(name));

      }

       public static String check(String str)

       {

          if(str.matches("-?\\d+(\\.\\d+)?"))

          return"\n Yes. This string has only digits.";

          else return "\n No. This string has only charecters.";

        }

**OUTPUT :**

Here my String : 2023

Yes. This string has only digits.

**EXERCISE 5 : COUNTING VOWELS AND CONSONANTS**

**Write a program that counts the number of vowels and consonants in a given string. Do this for the English language, which has five vowels (a, e, i, o, and u).**

**CODE:**

public class vowcons

{

       public static void main(String[] args)

       {

          String name = "loki2023";

          System.out.print("Here my String: "+name);

          char res;

          int len, i, vowel=0, consonant=0;

          len = name.length();

          for(i=0; i<len; i++)

          {

             res = name.charAt(i);

             if(res=='a'||res=='e'||res=='i'||res=='o'||res=='u')

                vowel++;

             else

                consonant++;

          }

          System.out.println("\n\nShow count of Vowels = " +vowel);

          System.out.println("\nShow count of Consonants = " +consonant);

       }

}

**OUTPUT :**

Here my String: loki2023

Show count of Vowels = 2

Show count of Consonants = 6

**EXERCISE 6 : COUNTING OCCURRENCES OF A CERTAIN CHARACTER**

**Write a program that counts the occurrences of a certain character in a given string.**

**CODE :**

    public class countcharac {

    public static void main(String[] args)

       {

          char ch, strCh;

          int strLen, i, count=0;

          String name ="loki lalysan";

          System.out.println("\nHere my  String : "+name);

          String character ="l";

          System.out.println("\nGive one character : "+character);

          ch = name.charAt(0);

          strLen = name.length();

          for(i=0; i<strLen; i++)

          {

             strCh = name.charAt(i);

             if(ch==strCh)

                count++;

          }

          System.out.println("\nCount of one character = " +count);

       }

    }

**OUTPUT :**

Here my String: loki lalysan

Give one character : l

Count of one character = 3

**EXERCISE 7 : CONVERTING STRING INTO INT, LONG, FLOAT, OR DOUBLE**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**Write a program that counts the occurrences of a certain character in a given string.**

**CODE :**

public class strtonum

{

      public static void main(String[] args)

      {

            String to\_int = "2023";

            String to\_long = "100000000000000";

            String to\_float = "25.123F";

            String to\_double = "21.34567891D";

           System.out.println("String to Integer :");

           Integer toInt1 = Integer.valueOf(to\_int);

           System.out.println("\"" + to\_int + "\"" + " is " + toInt1 + " ");

           System.out.println("\nString to Long :");

           Long toLong1 = Long.valueOf(to\_long);

           System.out.println("\"" + to\_long + "\"" + " is " + toLong1 + " ");

           System.out.println("\nString to float :");

           Float toFloat1 = Float.valueOf(to\_float);

       System.out.println("\"" + to\_float + "\"" + "is " + toFloat1 + " ");

           System.out.println("\nString to double:");

           Double toDouble1 = Double.valueOf(to\_double);

      System.out.println("\"" + to\_double + "\"" + "is " + toDouble1 + "");

       }

}

**OUTPUT :**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

String to Integer :

"2023" is 2023

String to Long :

"100000000000000" is 100000000000000

String to float :

"25.123F"is 25.123

String to double:

"21.34567891D"is 21.34567891

**EXERCISE 8 : REMOVING WHITE SPACES FROM A STRING**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**Write a program that removes all white spaces from the given string.**

**CODE :**

public class removespace

{

         public static void main(String[] args)

       {

          String name ="i m loki";

           System.out.print("\n Here my String: "+name);

          name = name.replaceAll(" ", "");

          System.out.println("\n\nJoin all characters = " +name);

       }

}

**OUTPUT:**

Here my String: i m loki

Join all characters = imloki

**EXERCISE 9 : JOINING MULTIPLE STRINGS WITH A DELIMITER**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**Write a program that joins the given strings by the given delimiter.**

**CODE :**

public class joindelimiter

{

        public static void main(String[] args)

    {

    String delimiter1 = ".";

    String str1 = "www";

    String str2 = "goole";

    String str3 = "com";

    String delimiter2 = "/";

String res1 = String.join(delimiter1, str1, str2, str3);

String res2 = String.join(delimiter2, str1, str2, str3);

    System.out.println("\nMy String 1 : " + res1);

    System.out.println("\nMy String 2 : " + res2);

    }

}

**OUTPUT :**

My String 1 : www.goole.com

My String 2 : www/goole/com

**EXERCISE 10 : GENERATING ALL PERMUTATIONS**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**Write a program that generates all of the permutations of a given string.**

**CODE :**

public class permutation

{

  static void Permutation(String name, String ans)

  {

       if (name.length() == 0)

      {

         System.out.print(" " + ans);

      }

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

         {

           char c = name.charAt(i);

           String res = name.substring(0, i) + name.substring(i + 1);

           Permutation(res, ans + c);

         }

  }

   public static void main(String[] args)

   {

       String name = "loki";

       System.out.println("\nHere my String : "+name);

       System.out.println("\nThe permutation are: ");

Permutation(name, "");

    }

}

**OUTPUT :**

Here my String : loki

The permutation are:

loki loik lkoi lkio liok liko olki olik okli okil oilk oikl kloi klio koli koil kilo kiol ilok ilko iolk iokl iklo ikol

**EXERCISE 11 : CHECKING WHETHER A STRING IS A PALINDROME**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**Write a program that determines whether the given string is a palindrome or not.**

**CODE :**

public class palindrome

{

     public static void main(String [] args)

        {

         String strRev="";

         String name ="romor"; // (or) String name = “roman”

         System.out.print("\nEnter the String: "+name);

         char res;

         int strLen = name.length();

         int i = (strLen-1);

         while(i>=0)

         {

            res = name.charAt(i);

            strRev = strRev + res;

            i--;

         }

         if(name.equals(strRev))

            System.out.println("\n\nyes! My String is Palindrome.");

         else

            System.out.println("\n\nNo! My String is not a Palindrome.");

    }

}

**OUTPUT :**

Enter the String: romor

yes! My String is Palindrome.

Enter the String: romon

No! My String is not a Palindrome.

**EXERCISE 12 : REMOVING DUPLICATE CHARACTERS**

**Write a program that removes the duplicate characters from the given string.**

BY

LOGESHWARAN S (LOKI)

(TENTACLES INFOTECH PVT. LTD.)

SUBMITTED ON 15-04-2023

TOPIC – 1

BASIC CODING

JAVA PROGRAMMING

ASSIGNMENT - II

**CODE :**

public class removeduplicate

{

     public static void main(String [] args)

        {

        String name ="loki lalysan";

        System.out.println("\n\nHere my string : " +name);

        StringBuilder res = new StringBuilder();

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

        {

            char r = name.charAt(i);

            int id = name.indexOf(r, i + 1);

            if(id == -1)

            {

                res.append(r);

            }

        }

             System.out.println("\nRemove duplicates : " +res);

    }

}

**OUTPUT :**

Here my string : loki lalysan

Remove duplicates : oki lysan

**EXERCISE 13 : REMOVING GIVEN CHARACTERS**

**Write a program that removes the given character from the given string.**

**CODE :**

public class removechar

{

     public static void main(String [] args)

        {

            String name ="loki6";

            String letter ="6";

            System.out.println("\n\nHere my String: "+name);

            System.out.println("\nWant to remove: "+letter);

        name = name.replaceAll(letter, "");

            System.out.println("\nNew string : " +name);

      }

}

**OUTPUT :**

Here my String: loki6

Want to remove: 6

New string : loki

**EXERCISE 14 : FINDING THE CHARACTER WITH THE MOST APPEARANCES**

**Write a program that finds the character with the most appearances in the given string.**

**CODE :**

public class maxappers

{

    public static void main(String[] args)

    {

             String name = "loki lalysan";

             System.out.println("\nHere my string : "+name);

              char tempArray[] = name.toCharArray();

              Arrays.sort(tempArray);

                String s = new String(tempArray);

                int n = s.length();

                int max\_count = 0;

                int count = 1;

                char ans = '-';

                for (int i = 1; i <= n; i++)

                {

                    if ((i == n) || (s.charAt(i) != s.charAt(i - 1)))

                    {

                        if (max\_count < count)

                        {

                            max\_count = count;

                            ans = s.charAt(i-1);

                        }

                        count = 1;

                    }

                    else

                    {

                        count++;

                    }

                }

            System.out.println("\nMax. character : "+ans);

          }

}

**OUTPUT :**

Here my string : loki lalysan

Max. character : l

**EXERCISE 15 : SORTING AN ARRAY OF STRINGS BY LENGTH**

**Write a program that sorts by the length of the given array of strings**.

**CODE :**

public class sortarr

{

        public static void main(String[] args)

       {

        String[] Words = new String[4];

        Words[0] = "Android";

        Words[1] = "Java";

        Words[2] = "CSS";

        Words[3] = "JavaScript";

      System.out.println("Here my array string ");

        for(String word : Words) {

           System.out.println(word);

        }

          String temp;

          int i, j;

          int n=4;

          for(i=0; i<n; i++)

          {

             for(j=1; j<n; j++)

             {

                if(Words[j-1].compareTo(Words[j])>0)

                {

                   temp=Words[j-1];

                   Words[j-1]=Words[j];

                   Words[j]=temp;

                }

             }

          }

          System.out.println("\nsort in order:");

          for(i=0;i<n;i++)

             System.out.print("  "+Words[i]);

        }

}

**OUTPUT :**

**T H E E N D**

Here my array string :

rajni

loki

kohli

mahi

sort in order:

kohli loki mahi rajni