START WRITING FROM HERE

```
7. Exercises on string and char operations
7.1 Reverse String (string 4 char)
import java.util. Scanner;
public class Reversestring &
     public static void main (String args []) }
           Scanner scan = new Scanner (system.in);
           System. Out. print ("ENKY a String: ");
           String input = scan. next();
           Scan. close();
           int stringlen = Input. length();
            String reverse = " ")
            for (int charld = stringlen -1; charld >0; charld --)}
                   reverse += input. char At (chare Id);
            3
            Syskm.out. println ("The reverse of the string 1" " + input +
                             "1" is 1"" + reverse + "("");
     }
?
                                         by Daily or All Italy :
Output:
Entry a String: abodef
 The reverse of the String "abodef" is "fedeba"
```

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7.2 Count vovels Digits (String 4 char)
import java. Util. Scamer;
public class Countrowels Digits ?"
     public static void main (String args []) } we reduced
          Scanner scan = new Scanner (System.in);
           System. out. print ("Ently of string: ");
           String input = scan. next();
                                      and 2 dithe over troom.
           int
               Strington = input. length ();
                                 DEBLE dass PROREKEY Pad
               vowellount = 6, digit count = 0, count = 0;
         . for line charld = 0; charld & stringlen ; charld++) {
            S. COUNTEXTO ON 3" - AND ONE ON ALBE
       (Classic of Characters input charAt (shar Id);
                if (character == 'a' Il charater == 'e' Il charater == 'i
    11 character == 'o' | charater == 'u'){
      char character = input. . nerter (charta);
                 } else if (character == '0' | character == '1' |
                   character == '2' | character == '3' | character == '4' |
                   charater == 'S' || character == '6' || character == '7' ||
                  character == '8' Il character == '9') {
            grand ((3) digit Countret + 7
                Bur no trestable e some acci
           Syltimious print ("Number of vowels: " + vowel Count);
           System. out. printf (" ("10-2f "10")", (double) (vowellount" 100)/count);
           System. our, printly ();
           System. out. print ("Numbers of digits: " + digit(ount);
       System. out. printf (" (%.25%%)", (double) (digit(ount 100)/count);
     }
                             3/16
```

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output :
                    Congress by January Wight grand Regist Sig
Enter a String: testing 12345 grace and continue of the
Number of vowels: 2 (16:67.16) sale research and shake
Number of idigition Shor (41.6786) was what a ward
         MILKELERS & STATE & MERCH CANADA
7.3 Phone key Pad (String & char)
import java.util. Scanner;
public dass Phonekey Pad {
    public static void main (String args[]) }
Scanner scan en (scanner (System.in);
         System. out. print ("Enter a string: ");
   ( ) I = v String A rinpur = r scan next (). to Lower (asel);
       int string Len = input length ();
         for (int charId = 0; charId & stringlen; charId ++) {
             char character = input. charAt (charId);
     swith (character) {
              case 'a': case 'b': case c':
                    Syskm. out. print (2); break;
           case'd : case'e! : case'f':
                    Syskm-out. print (3); break;
                 case 'g' : case 'b' : case 'i'
                    System.out.print (4); break;
          case 'st prease 'k' : " case 'x' !!
       System. Out. print (s); break;
                case 'm': case 'h': " case on !
       System. out print (6); break;
     case 'p' case 'g' : case'y' : case's':
                     System. out. print (7); break;
```

```
case 't' : case was case 'vist
                  System. out print (8); break;
                 (a) ("" : case 'x' : case 'y' : case 'z' :
                System. out. print (4); break;
                TENT HARY HAD MAYER
             ?
         3
((Ehr. 1) (Mayactor + 3));
output :
Enter a string: AjpM
                                                  , fugtue
2576
     (aesar's code (string 4 char)
                                      ENKY a plaintest
                    The departert string is WHVDIGT
import java. util. Scanner;
Public class ( Caelar Code ( Spisbor) renques 25
    public static void main (String args []) {
         Scanner scan = new Scanner (Systemin);
         System. out · Print CEntra a plain text string: ");des
        Stringer Papat = scan next (). to upper (ase 0); and
        SCANARY SCAN = NEW SCANKO SLOVENDOS);
int stringlen = ringut length (1)
      String input = Scan Mext () to upper (a)c();
         for (int charId = 0; charId < stringlen; charId ++) {
              char character = input charAt (charId);
              if (teraractory = = = x = )11 mints Ind
                   Systm.out.print ('A');
              3
```

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else if Las (characture = = = " 16 )= 2
             Closed System, out print (B);
     العلاد ألما ؛ وول د الها ؛ وعلو ع : إ دهده أي :
            welse if (charache m= (e22'){
                    System. out. print ('L');
               elses
                    Systm. out. print (char) (character +3));
                }
          3
                                                       : 1115140
     3
}
                                     ENTER A STRING A PAIR
output,
                                                          2576
Enkr a plaintext
                      string: Testing
                                           July (acson's code
The ciphertext string is: WHVWLQJ
                Caesar's code
                                  (sping of char)
7.5
     Decipher
         pava . I (11 par pritt) nam biov state silvag
import
            Scanner scan = new Scanner (Systemia);
         (191) Decipher (aesgr (ode )
Prints Transport of Plants Tho myses
public,
     public staric void main (String args II) {
           Scanner scan = new Scanner (Systeman);
           System. out. print ("Entra a ciptertext string: ");
           String input = scan. next(), to Upper (ase();
              for line charid = 0; charid & stringlen
CHAVED ++ ) [
            Scan. close ();
     that example they a sapar charat (char Id);
           Int stringlenx= input, length ();
                  Saltim.out - print ('A');
```

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) (++ b= v+for (sint charted = los ocharted & estring Lengt excharted ++ ) {
               ((A) LAND Char Character = imput: charat (charld);
              (((r))) prylite occharachen)= niAid & wo maryur
                             System. out. print ('x');
                         else if (character = = 'B') }
                             Syskm. out. print ('Y');
                                                                1749140
                         else if (character == '('){
                                   taky a plaintent string: abexyz
                             System. out. print ('Z');
                                  The cipman Kar string is: SAX (BA
                         ا واء د کر
              stand sime that you tem out print (char) (characky -3));
                    }
                          i. Test Palindromic Word (string a char)
             }
        }
                                           import java util. Scanner;
                                   public day Test Palindromic Word !
         output :
                       Public static void main (string ergs[]) ?
                        totales (Shind: Phymed)
         ENHY a ciphyrext
                                               SCANNEY SCAN
         En The plainkar
                        At string is: TESTING THE TRIPE
                              INDUF : SCAN, NEXT ()
                           Cipher (String 4 char)
              Ex (hange
         7.6
it or interior = importadava utilo scapperingi. Inqui = not with this
         public class Exchange Cipher & House mostood
                    static void main (String ans []) }
              public
                   Scanner scan =
                                     NEW Scanner (System. in);
 $ (( 10 th 13 d)
                   System. out. print ("Entry a plaintest string: ");
                   String input = scan next (), to Upper (a) c ();
                   Scan. close ();
                        stringlen = inputitingth U;
                   int
```

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[ ( ) of the for (into their I'd = 10,500 char I'd x string Leng) char Id++) {
    (Chirple) Timber character = timpythocharAf (charId);
              system.out. print ((char) ( iss - charalter));
                   Il's D thirg to s. motore
         ł
    3
7
                   Sylkm. Out- print (17);
output:
                 else if (charaltr == 'C') {
ENKY a plaintext string: abcxY2
                   Saltem. out print ('Z');
     cipher text string is: ZYX (BA
 Th
                                   7 2615 1
 7.7 Test Palindromic Word and Test Patindromic Phrase
 1. Test Palindromic Word (string 4 char)
  import java. util. Scanner;
  public class Test Palindromic Word {
                                                    1 140140
      public static void main (string args[]){
           Scanner scan = New Scanner (System.in);
           System. out- Print ("Enter of String: ");
            String input = scan. next ();
                         FICHERONGE CIPKER (SHIN) &
            scan. close();
           int stringlen = input. length (), finder = 0, binder = stringlen -1;
            boolean thick = Trace, serredus und silder
                  James gride ) nine broke starz siterie
          while (finder < bindex) {
    if (input. charAt (findex) = = input. charAt (bindex)) {
         (O = ca) ragge of color in most - then entitle
                 } else {
                      check = false;
                  Wish sak sugai = receptible the
```

```
finder 44;
          0 = 83 balt
                      bindex --;
                   (check) { } ( Kabnida xabnida) allinu
A Secretary of the ration of a System. but. printing Cinput at 10 )ist a palindromic word ");
                } else {
                      System.out.println (input + "is not a palindromic word)
                3
          }
                                           · JUSTO
    }
     output:
                                           fluder ++;
     ENKY a string : Racecar
                                           1-- BINT8
     Racecar is a palindromic word
                                             if (check) &
     2 Test Palindromic Phrase (string & char)
     import java. util. Scanner; il storky simosonilpg
             class TestPalindromic Phrase {
     public
                                            } 0110 }
      public static void main (string args []) {
               Scanner scan = new scanner (System in);
               System. out. print ("Enter a phrase: "); ;
               String Intake = scan. next Line();
               scan. close ();
               String input = intake. to Upper Case();
               String tiltyed Imputit . "Madam : svaring in roma
               int og Strington = input. length ();

second sincorphiling a li long by on's manal!
               for ( int charid = 0; charid < ogstringlen; charid ++) }
                     char character = input. charAt (charId); ~
                     If (characky >= 'A' 11 engrater <= 'Z') {
                           filtered Input += character;
                     3
                                  9/16
                3
```

```
int stringlen = filteredInpur length 0, findex = 0, bIndex =
         stringlen-li boolean. Check = tive;
         while (findex & bindex ) { } ( x) and ) = i
commercial sit (filtered Input : char At (FINDER) == filtered Input. charAt (OIA)
                 Check = true;
            Sociac & Tugai) altaing the Marce 2
                 check = false;
                 break;
            findex ++;
            BINDER --;
                                  EARLY & SHIM : RACCERY
        }
                            Raicecax I a palindromic word
         if (check) q
            System. out. printin ("\" " + intake + " | 1 4
             palindromic phyaic"); (TAMADOS. 11th. DVA) trogmi
            public and Tellfalindromic Phyales } il
             System. out. printin (" " + intake + " \" " is not a
         ("palindrom: ("); hraic"); nois yonnoo?
         System out print ("ENTER & phraics "); ;
                 String intraka = sean, next line();
    3
3
                                      Sign. dose ();
output:
          String Input = hitake. to Upper Case ().
 Enur a phrase: Madam, I'm Adam! 1111 Care
 "Madam, I'm Adam!" is a palindromic phrase
 for Cini chavida co charite cocitiingten o charin an
     ( Joy action is a "A" at an arranter as 121) [
              Although the characters
```

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7.8 (heck Binstr
                    (Shing Muchay) (42) - 42,000 200/2
                                   import java, util. scynnets
  import java. util. Scanner;
        class (Mick Bin Str {
      public static void main (String args [7)}
           Scanner scan = new Scanner (Syskm. In);
           System. out Print C"Enter a binary string:
           string input = scan. next();
           Scan. close (S) MI ENSI TUGNI = nostenite Ini
                           boolean theth = true;
                string Lan = input. length ();
  for (int charle = 0; estimate with the charles) for
     CHAY CHAYACHY = in pur. (KAYAF (CHAYId);
           tor (Int charId =0; charId < stringlen; charId++){
    (! (CONGRACHEND : 0' 44 CHAYACHEN (1= 19))
                     character = input. charAt (char Id);
  CHAYOHY (= 'F') 11
}((( | f | _ ryryry if no (character != 11) {
                     (heck = stalse; x)
                     break;
                } else {
                     Check = truci
System out printh (: Swanno) (input + " is a max state
        Cinput + " in not a mix
 -xiriz
          System. out. printly (check ? (input + "is a binary string"):
                               (input + " is not a binary string"));
      }
                                                      : TUPTNO
  ζ
                                ENHY a Kek String: 1234BU
  output :
                                    "123 a BC" is a KK string
  ENKY a binary string: 10112001
   10112001 is not a binary string
```

```
7.9 check tlex Str (String, And char) pairle : rizal8 2000 1.5
   import java. uril. Scanner;
                                      THEO Y JAVA BELL STARMERS
   public class Check Hex Str {
                                     public dass (Auch Biostr )
        public static void main (string args []) {
                                               Duplic static
             Scanner scan = new Jeanner (system.in);
             Systm. out. print ("Entry a hex string: ");
             String inpur = scan. next();
                           Stains input = scan . Next ();
             int stringlen = input.length, (); 100 . april
             boolean thick = true;
                       int stainglan = input. length ();
             for (int charld = 0; charld < stringlen is charld++){
                   char character = input. (harAt (charId);
  } (++ bIrph) : negative > bIrph) (0= bIrph) int) Yot

IF (! (Charachy>= '0' 41 charachy <= '9') |
         (character = input. harAt (charId); I (character <= 'F') 11
        ? ( T' = ! YS DE YSA (CHATATHY 5= YOLAN ERMS) CHAYACHY L= 'F'))) {
                         Check = Railse; 1010
                                    Hosrd
                         break;
                                         } 2110 {
                   }
                                Check = MULL
             System. out printh (checking) (input + " is a hex string"):
                                   (input + " is not a Mx string "));
System. out - printly (chick & (input + " : a bings & stirs)
 Crima Econig o son a " + Aligni)
  output !
  Enter a hex string: 123 aBC
                                                         · thathe
   "123 aBc" is a hex string
                             10051101 : MITE HYDRID P THAT
                               tollinol is not a binary string
```

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```
7.10 Binz Dec (smry & char)
 import java. util. Scanner;
 public class Binz Dec &
     Public static void main (string args []) {
         Scanner scan = new scanner (System. in);
          System. out. print ("Entr a Binary sning: ");
          String input = scan. next ();
                                   30110 (120 Sidney
          int decimal = Integer. passe Int (input, 2);
         System. out printly ("The equivalent decimal number for
          binary + "" + input + "N' qis + " + decimal);
                   Alltano no de taga grista
3
                                 the noterial
output:
ENKY 9 Binary String: 1011
The equivalent decimal number for "ioil" is: II
7.11 Hex2Dec (String 4 char)
import java. util. Scanner;
public class Hexz Dec &
    public static void main (string args []) }
         Scanner scan = new Scanner (System.in);
         Syskm. our. print ("Enkr a heradecimal string: ");
         String input = scan. nart();
         Int decimal = Integer. parse Int (input, 16);
         System. out. printly ("The equivalent decimal number for
         hexa decimal \"" + Input +"\" 11: " + decimal);
   ξ
```

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```
(1247 & Expert) Decreis 1 - 1
output:
 Entr a hexadecimal string: la monopos demonstrate magas
 The equivalent decimal number for hexadeimal "19" is: 26
7.12 Oct 2 Dec Mill Ching . A. char.) .. . Must ramonal.
import java. util. Scanner;
public class Oct 2 Dec {
                        ink decimal + integers
     Public static void main (string args [3])
scanner scanner scan = new scanner (syikm:in);
     System. Out print ("Enter an "Octal string: ");
          String input = scan.next();
          Scan. close ();
          int decimal = Integer. parse Int(input, 8);
                              Energy & Binary String : 1011
          System.out.printin("Tu equivalent decimal number for
           octal \" " + input + "\" is: " + decimal);
    3
                       IN HOPEDCE (SPING & SMEC)
}
                              Canani Java. DVA; Trees.
output :
                                  FRONTE SING HERE
                grangeria sing biro digas dibag
Enter an Octal String: 147
The equivalent decimal number for "
                                      "144"
```

worker in this street something of the standard

ACCOMPLETE TO THE DOTAL PROPERTY OF LOWELD MALK

CHON CHARL - ALGAR CALLA