SHELL PROGRAMS INVOLVING STRINGS

#shell script to compare 2 strings. echo "Enter the first string:" read strl echo "Enter the second string:" read str2 if [\$strl = \$str2] then echo "strings are equal" else echo "strings are not equal" fi

-OUTPUT-1

Enter the first string: Srinivasan
Enter the second string: Srinivasan
Strings are Equal

OUTPUT-1

Enter the first string: college
Enter the second string: school
Strings are not equal.

Example - 2

#Shell program to find the length of # a given string.
echo "Enter the string:"
read str
len = 'echo \$str | wc-c'
len= 'expr \$len -1'
echo "Length of the string is \$len"

Enter the string : Sakthi OUTPUT Length of the string is 6. #Shell script to copy a string into another string Example - 3 echo "Enter the string" read str len='echo \$str | wc-c' a=0while [\$a -le \$len] rev='echo \$str |cut-c \$a' do a='expr \$a+l' temp='ec4ho \$temp \$rev' echo "The copied string is \$temp" done OUTPUT Enter the string Someswaran The copied string is Someswaran. Example - 4 #Shell program to reverse a given string echo "Enter a string"

read str

len='echo \$str |wc -c'

while [\$len -gt 0]

do

temp='echo \$str |cut-c \$len'

rev='echo \$rev \$temp'

len='expr \$len-1'

done

echo "The reversed string is \$rev"

read str

TESTES

Example - 6

read str

vowel=0

do

then

then

Enter the string : computer

The reversed string is retupmon Example - 5

#Shell script to convert lower case letters to its upper case.

temp='echo \$str |+v [a-z][A-Z]

Enter a string mani

echo "Enter the string"

len='echo \$str | wc-c'

len='expr \$len-l'

while [\$len -qt 0]

if [stemp = a]

vowel=`expr \$vowel+l`

elif [\$temp=e]

elif [\$temp=i]

echo "The changed case string is \$temp"

#Shell script to count the number of vowels in the string

The changed case string is MANI

temp='echo \$str |cut-c \$len'

vowel=``expr \$vowel+l``

then

then

fi

TBTTBOZ

Example - 7

read sl

read ch

read re

count=0

do

then

i = 1

then

elif [\$temp=o]

elif [\$temp=u]

len='expr \$len-l'

echo "Enter a string"

len=`echo \$str |wc-c`

len='expr \$len-1'

while [\$i -le \$len]

if [\$temp=\$c]

new='echo \$new \$r'

vowel='expr \$vowel+1'

vowel='expr \$vowel+1'

Enter the string : programming

vowel='expr \$vowel+1'

echo "Number of vowels in the string \$str is \$vowel"

Number of vowels in the string programming is 3.

#Shell program to replace a particular character in the string

echo "Enter the character to be changed"

echo "Enter the character to be replaced"

temp='echo \$str |cut-c \$i'

Computer Fractice Japorel

```
else
              new='echo $new $temp
                                                               2.73
          fi
         i='expr $i+i'
         done
         echo "original string is $str"
         echo "updated string is $new"
     TESTEO
        Enter a string
             uma
        Enter the character to be changed
        Inter the character to be replaced
       Original string is uma
       Updated string is amma
 Example - 8
     #Program to find the occurance of a particular character in the
given string
      echo "Enter the string"
      read sl
     echo "Enter the character to be searches"
     read cl
     l='echo $sl |wc-c'
     l='expr $1-1'
     0=x
    while [$1 -gt 0]
    do
    t='echo $s1 | cut -c $1'
    if [$t = $c1]
   then
   x='expr $x+1'
   fi
   l='expr $1+1'
```

1.13 CONTINUE AND BREAK STATEMENT

Normally, the looping construct executes all the commands betwee the do statement and done statement. The two commands enable us to go

- break command
- 2. continue command

The break command causes the program to exit the loop immediately

The syntax is

break:

The continue command is used to transfer the control to the beginning of the loop. The loop does not terminate when a continue command is

The syntax is

continue

Example

while condition do

statementl

A function is a self contained program segment that performs some pecific well defined task. Example - 1 /* shell program with user defined function funct1() { echo "List the users who are currently logged in are:" echo "do you want to see the users list (Y/N):" read ch if [\$ch: 'y'] then functl # function calling fi On execution, it displays all the users who are currently logged in

se, shell programming also supports

```
C. PROGRAMMING OIL ONLX
2.76
                                   mple - 1
/* Program to illustrate the Fibonacci sequence generation by
              Example - 1
                                         #include<stdio.n>
void fib (unsigned int nl, unsigned int
                                     recursion*/
                                          num);
                                          main()
                                         {
                                                               printf("n enter the limit:");
                                                               printf("frequency sequence upto %d terms\n",n);
                                                               fib(0,1,n);
                                       void fib(unsigned int nl, unsigned int n2, unsigned int num
                                        {
                                                              if (num1=0)
                                                              {
                                                                                  printf(``%u \n``, nl);
                                                                                  fib(n2,n2+n1,num-1);
                                                             }
                                       }
                    TEGTEO
                                       Enter the limit:5
                                      frequency sequence upto 5 terms
                                      0
```

1

1

2

3

```
mple - 2
 #program to swap two numbers using pointers (call by reference)
  #include<stdio.h>
  int main()
  {
      int a.b;
      void swap(int *a,int*b);
      printf(``Enter the Two numbers:``);
      scanf(``%d%d``,&a,&b):
       printf("\n values before swaping is a=%d, b=%d" a,b);
       swap (&a,&b);
       printf('\n values after swaping is a=%d, b=%d,a,b);
       return 0:
  void swap (int *a,int *b)
       *a=*a + *b:
       *b=*a - *b:
       *a=*a - *b:
OUTPUT
   Enter any two numbers 4 5
   Values before swaping is a=4, b=5
   Values after swaping is a=5, b=4
xample - 3
  #Program using Dynamic Memory Allocation function
   #include<stdio.h>
   #include<stdlib.h>
   int main()
        int *a, *n, size;
        printf("Enter the Size");
        scanf("%d",&size);
        n=(int *)malloc(size * sizeof(int));
```

```
printf("Address of the First byte is ...%u \n",n);
          printf("Enter the values..");
          for(a=n;a<n+size;a++)
             scanf("%d",a);
          {
         printf("Result");
         for(a=n;a<=+size-1;a++)
            printf("%d is stored in Address %u \n",*a,a);
        return 0;
   }
TBATBO
  Enter the size 5
  Address of the First byte is ... 142934024
  Enter the values ... 1 2 3 4 5
  Results
      l is stored in Address 142934024
     2 is stored in Address 142934028
     3 is stored in Address 142934032
     4 is stored in Address 142934036
     5 is stored in Address 142934040
```

char s[200], ch, Name[200], Age[20], Dept[200];

Example - 4

#Employee details using files

#include<stdio.h>

#include<string.h>

FILE *fl;

int main()

```
SHELL PROGRAMMING
          int i,n;
          fl=fopen("c:\\Textl.txt","w");
          printf("Enter how many Employee:");
          scanf("%d",&n);
          for(i=0;i\leq n;i++)
              printf("\nEnter Employee \"%d\"Name, Age,
                  Dept: ``, i+1);
              scanf("%s%s%s",Name,Age,Dept);
              fprintf(fl, "%s\t\t\%s\t\t\%s\n", Name,Age,Dept);
         fclose(f1);
         fl=fopen("c:\\Textl.txt", "r");
         printf("`\n\n\t\tData in File\n\n");
         printf("\nName\t\Age\t\Dept\n');
         while((ch=fgetc(fl))|=EOF)
             printf("%c",ch);
         fclose(fl);
         return 0;
 TESTES
    Enter how many Employee: 2
    Enter Employee "1" Name, Age, Limit: Sankar 24 IT
    Enter Employee "2" Name, Age, Dept : Murugan 23 IT
    Data in File
    Name AgeDept
    Sankar 24
```

IT

23

Murugan