ASSIGNMENT 18

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B22

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Q1. Write a program to display length of input string.

Code:

//this program returns the lenght of the input

#include <stdio.h>

int main()

{

    char s[100];

int i;

    printf("Enter a string: ");

scanf("%s", s);

for(i = 0; s[i] != '\0'; ++i);

    printf("Length of string: %d", i);

    return 0;

}

Output:



Q2. Write a program to display frequency of a letter in a string.

Code:

//this program displays the frequency of a letter in a string

#include <stdio.h>

#include <string.h>

int main()

{

    char b[100], ch, i=0, count=0;

    printf("Enter a string: ");

    gets(b);

    printf("Enter a character to find a frequency: ");

scanf("%c", &ch);

    while(b[i])

        if(ch==b[i++])

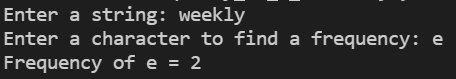
            ++count;

    printf("Frequency of %c = %d", ch, count);

    return 0;

}

Output:



Q3. Write a program to display reverse of a string.

Code:

//this program displays the reverse of the imput string

#include <stdio.h>

int main()

{

   char s[1000], r[1000];

   int begin, end, count = 0;

   printf("Input a string: ");

   gets(s);

   while (s[count] != '\0')

      count++;

   end = count - 1;

   for (begin = 0; begin < count; begin++)

   {

      r[begin] = s[end];

      end--;

   }

   r[begin] = '\0';

   printf("Reverse of the string: %s\n", r);

   return 0;

}

Output:



Q4. Write a program to display the number of vowels in a string.

Code:

//this program displays the number of vowels in a string

#include <stdio.h>

int main()

{

  int c = 0, count = 0;

  char s[1000];

  printf("Input a string: ");

  gets(s);

  while (s[c] != '\0') {

    if (s[c] == 'a' || s[c] == 'A' || s[c] == 'e' || s[c] == 'E' || s[c] == 'i' || s[c] == 'I' || s[c] =='o' || s[c]=='O' || s[c] == 'u' || s[c] == 'U')

      count++;

    c++;

  }

  printf("Number of vowels in the string: %d", count);

  return 0;

}

Output:



Q5. Write a program to concatenate 2 strings.

Code:

//this program concatenates  string s2 to  string s1

#include <stdio.h>

int lenght(char\*s)

{

    int k=-1;

    while(s[++k]);

    return k;

}

int main()

{

    char s1[100], s2[100], ch;

    int i, j;

    printf("Enter first string: ");

    scanf("%s",s1);

    scanf("%c", &ch);

    printf("Enter second string: ");

scanf("%s",s2);

    i=0;

    j=lenght(s1);

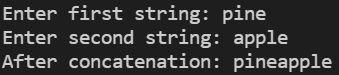
    while(s1[j++]=s2[i++]);

    printf("After concatenation: %s",s1);

    return 0;

}

Output:



Q6. Write a program to determine if the 2 given strings are same or not.

Code:

//this program determines of the given string are same or not

#include<stdio.h>

#include<conio.h>

int main()

{

    char str1[50], str2[50];

    int i=0, chk=0, a;

    printf("Enter First String: ");

    gets(str1);

    printf("Enter Second String: ");

    gets(str2);

    while(str1[i]!='\0' || str2[i]!='\0')

    {

        if(str1[i]!=str2[i])

        {

            a=i;

            chk = 1;

            break;

        }

        i++;

    }

    if(chk==0)

        printf("\nStrings are Equal");

    else

    {

        printf("\nStrings are not Equal");

        printf("\nLetter discrepancy at index %d: ", a);

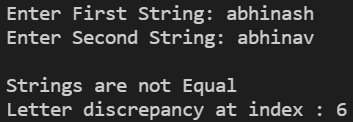
    }

    getch();

    return 0;

}

Output:



Q7. Write a program to determine the largest element in a matrix.

Code:

//this program finds the largest element in a matrix

#include <stdio.h>

int ele\_max(int mat[5][4])

{

    int i, j, max, sum=0, a[5];

    max=mat[0][0];

    for(i=0;i<5;i++)

    {

        for(j=0;j<4;j++)

        {

            sum+=mat[i][j];

            if(mat[i][j]>max)

                max=mat[i][j];

        }

        a[i]=sum;

        sum=0;

    }

    printf("Maximum element: %d\n\n", max);

    for(i=0;i<5;i++)

        printf("Sum of row %d: %d\n", i+1, a[i]);

}

int main()

{

int a[5][4]={{1,2,3,4},{11,12,13,14},{5,6,7,8},{15,16,17,18},{21,22,23,24}}, i, j;

    ele\_max(a);

    return 0;

}

Output:

