31.Execute a program to display data of three TCS, two HP employees info using structure

#include<stdio.h>  
#include<conio.h>  
#include<string.h>  
  
//Declaration of structure org  
struct org  
{  
char name[30];  
int emp\_id,salary;  
};  
void main()  
{  
  
//declaration of org member as array  
struct org employee[5];  
int n,i;  
clrscr();  
printf("\nEnter the number of employeed in your organization(<=20):");  
scanf("%d",&n);  
  
//enter values using for loop  
for(i=0;i<n;i++)  
{  
printf("\nEnter Person %d\n Name :",i+1);  
scanf("%s",&employee[i].name);  
printf("\nEmployee Id :");  
scanf("%d",&employee[i].emp\_id);  
printf("\nEmployee Salary :");  
scanf("%d",&employee[i].salary);  
}  
  
//printing employee information  
printf("\nEmployees Information\n");  
for(i=0;i<n;i++)  
{  
printf("\nPerson %d\n Name : %s",i+1,employee[i].name);  
printf("\nEmployee Id : %d",employee[i].emp\_id);  
printf("\nEmployee Salary : %d",employee[i].salary);  
}  
getch();  
}

32. Execute a program to display data of one student using pointers in structure data type

#include <stdio.h>

struct student

{

char name[30];

int roll;

float perc;

};

int main()

struct student std;

struct student \*ptr;

ptr= &std;

printf("Enter details of student :: \n");

printf("\nEnter Name of student :: ");

scanf("%s",ptr->name);

printf("\nEnter Roll No of student :: ");

scanf("%d",&ptr->roll);

printf("\nEnter Percentage of student :: ");

scanf("%f",&ptr->perc);

printf("\nEntered details of student are :: \n");

printf("\nName : %s \n\nRollNo: %d \n\nPercentage: %.02f\n\n",ptr->name,ptr->roll,ptr->perc);

return 0;

}

33.Execute a program to display even series using for loop

#include <stdio.h>

int main()

{

int i, n;

printf("Print all even numbers till: ");

scanf("%d", &n);

printf("Even numbers from 1 to %d are: \n", n);

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

{

if(i%2 == 0)

{

printf("%d\n", i);

}

}

return 0;

}

34.Execute a c program to display odd series using for loop

#include <stdio.h>

int main()

{

int i, n;

printf("Print odd numbers till: ");

scanf("%d", &n);

printf("All odd numbers from 1 to %d are: \n", n);

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

{

if(i%2!=0)

{

printf("%d\n", i);

}

}

return 0;

}

35.Execute the program to display even, odd using menu driven choice

#include <stdio.h>

int main()

{

int number;

printf("Enter a positive integer number: ");

scanf("%d",&number);

switch(number%2) //this will return either 0 or 1

{

case 0:

printf("%d is an EVEN number.\n",number);

break;

case 1:

printf("%d is an ODD number.\n",number);

break;

}

return 0;

}

36.Execute a program to display prime series using for loop

#include <stdio.h>

int main() {

int low, high, i, flag;

printf("Enter two numbers(intervals): ");

scanf("%d %d", &low, &high);

printf("Prime numbers between %d and %d are: ", low, high);

while (low < high) {

flag = 0;

if (low <= 1) {

++low;

continue;

}

for (i = 2; i <= low / 2; ++i) {

if (low % i == 0) {

flag = 1;

break;

}

}

if (flag == 0)

printf("%d ", low)

++low;

}

return 0;

}

37.Execute the program to display composite numbers using for loop

#include <stdio.h>

int main() {

int num = 12;

int i;

int count = 0;

for(i=1;i<=num;i++)

{

if(num % i == 0)

count++;

}

if(count > 2)

printf("%d is a composite number", num);

else

printf("%d is not a composite number", num);

return 0;

}

38.Execute a program to display Prime , Composite series using switch case

38.execute a cprogram to display prime,composite series

Using switchcase

#include<stdio.h>

intmain()

{

int choice,num,i;

while(1)

{

printf("1.composite\n");

printf("2.Prime\n");

printf("Enteryourchoice:");

scanf("%d",&choice);

switch(choice)

{

case1:

printf("Enternumber:\n");

scanf("%d",&num);

if(num==1)

printf("\n1is neither primen or composite\n\n");

for(i=2;i<num;i++)

{

if(num%i==0)

{

printf("\n%d is a composite number\n\n",num);

break;

}

}

case2:

printf("Enter number:\n");

scanf("%d",&num);

if(num==1)

printf("\n 1 is neither prime nor composite\n\n");

for(i=2;i<num;i++)

{

if(num%i==0)

{

printf("\n%d is not a prime number\n\n",num);

break;

}

}

/\*

Not divisible by any number other

than 1 and itself

\*/

if(i==num)

{

printf("\n\n%d is a Prime number\n\n",num);

break;

}

}

}

return0;

}

Output:

1.composite

2.Prime

Enteryourchoice:1

Enternumber:

3

Enternumber:

5

5isaPrimenumber

39.Execute a program to display Maximum and Minimum value from the given array of numbers

#include <stdio.h>

int main()

{

int a[1000],i,n,min,max;

printf("Enter size of the array : ");

scanf("%d",&n);

printf("Enter elements in array : ");

for(i=0; i<n; i++)

{

scanf("%d",&a[i]);

}

min=max=a[0];

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

{

if(min>a[i])

min=a[i];

if(max<a[i])

max=a[i];

}

printf("minimum of array is : %d",min);

printf("\nmaximum of array is : %d",max);

return 0;

}

40.Execute a program to display Average of user defined numbers using 1D Array

#include<stdio.h>

float average(float a[100], int n);

int main()

{

float a[100], res;

int i, n;

printf("Enter n:\n");

scanf("%d", &n);

for(i=0;i< n;i++)

{

printf("a[%d]=",i);

scanf("%f", &a[i]);

}

res = average(a,n);

printf("Average = %f", res);

return 0;

}

float average(float a[10], int n)

{

int i;

float sum=0.0;

for(i=0;i< n;i++)

{

sum = sum + a[i];

}

return(sum/n);

}

41. Execute a program to display Arithmetic operations using Storage class External

**#include<stdio.h>**  
**void show();**  
**void  demo();**  
**int main()**  
**{**  
**extern int i;**  
**printf(“\ni=%d”,i);**  
**show();**  
**demo();**  
**return(0);**  
**}**  
**void show()**  
**{**  
**extern int i;**  
**printf(“\ni=%d”,i);**  
**}**  
**int i=10;**  
**void demo()**  
**{**  
**i++;**  
**printf(“\ni=%d”,i);**  
**}**

|  |
| --- |
| Output |
| i=10 i=10 i=11 |

42. Execute a program to display Arithmetic operations using Storage class Static

#include<stdio.h>

void sum()

{

static int a = 10;

static int b = 24;

printf("%d %d \n",a,b);

a++;

b++;

}

void main()

{

int i;

for(i = 0; i< 3; i++)

{

sum(); // The static variables holds their value between multiple function calls.

}

}

43. Execute a program to display Arithmetic operations using Storage class Automatic

#include <stdio.h>

void abc();

int main()

{

auto int a = 5;

++a;

abc();

abc();

++a;

printf("\n a = %d", a);

return 0;

}

void abc()

{

int a = 10;

++a;

printf("\n a = %d ", a);

}

44. Execute a program to display Arithmetic operations using Storage class Register

#include <stdio.h>

int main()

{

register int a = 10;

++a;

printf("Value of a : %d", a);

printf("\nEnter a value");

scanf("%d" , a);

--a;

printf("\n Value of a : %d", a);

return 0;

}

45. Execute a program to display the value of numbers using Union

#include <stdio.h>

#include <string.h>

union data

{

int i;

float f;

char str[20];

};

int main( )

{

union Data data;

data.i = 10;

data.f = 220.5;

strcpy( data.str, “C Programming”);

printf( “data.i : %d\n”, data.i);

printf( “data.f : %f\n”, data.f);

printf( “data.str : %s\n”, data.str);

return 0;

}

46. Execute a program to display string length , string reverse ,

string concatenation

#include<stdio.h>  
#include<string.h>  
#include<conio.h>  
  
int leng(char str[20]);  
void concat(char str4[20], char str5[20]);  
void main()  
{  
char str1[20],str2[20],str3[20];  
int i,j,len,first,second;  
clrscr();  
printf("Enter the first string:\n");  
gets(str1);  
  
printf("Enter the second string:\n");  
gets(str2);  
first=leng(str1);  
second=leng(str2);  
printf("\nLength of 1st string= %d",first);  
printf("\nLength of 2nd string= %d",second);  
  
if(first<=second)  
    {  
    concat(str1,str2);  
    }  
else  
    {  
    concat(str2,str1);  
    }  
getch();  
}  
  
int leng(char str[20])  
    {  
    int i=0;  
    while(str[i]!='\0')  
        {  
        i++;  
        }  
    return(i);  
    }  
  
void concat(char str4[20], char str5[20])  
    {  
    int i=0,j;  
    char str6[20];  
    while(str4[i]!='\0')  
        {  
        str6[i]=str4[i];  
        i++;  
        }  
    j=0;  
    while(str5[j]!='\0')  
        {  
        str6[i]=str5[j];  
        i++;j++;  
        }  
    str6[i]='\0';  
    printf("\n\nConcanated string= %s",str6);  
    }

String reverse

#include <stdio.h>

int main()

{

char str[1000], rev[1000];

int i, j, count = 0;

scanf("%s", str);

printf("\nString Before Reverse: %s", str);

while (str[count] != '\0')

{

count++;

}

j = count - 1;

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

{

rev[i] = str[j];

j--;

}

printf("\nString After Reverse: %s", rev);

}

48. Execute a program to display Vowels and count of Vowels in Word

#include<stdio.h>

int main()

{

char str[100];

int i,count = 0;

Scanf(“%s”,str);

//iterate the string

for(I = 0; str[i] != ‘\0’; i++)

{

//check each char with any vowel. ‘a’,’e’,’I’,’o’,’u’.

if( str[i] == ‘a’ ||

Str[i] == ‘e’ ||

Str[i] == ‘I’ ||

Str[i] == ‘o’ ||

Str[i] == ‘u’ )

{

//if equal increment the count

Count++;

}

}

//print the result

Printf(“vowel count = %d\n”,count);

return 0;

}

49. Execute program to display Consonants and count of Consonants in word

#include <string.h>

int main()

{

Char s[1000];

int i,vowels=0,consonants=0;

Printf(“Enter the string : “);

gets(s);

for(i=0;s[i];i++)

{

if((s[i]>=65 && s[i]<=90)|| (s[i]>=97 && s[i]<=122))

{

if(s[i]==’a’||

s[i]==’e’||s[i]==’I’||s[i]==’o’||s[i]==’u’||s[i]==’A’||s[i]==’E’||s[i]==’I’||s[i]==’O’ ||s[i]==’U’)

vowels++;

else

consonants++;

}

}

printf(“vowels = %d\n”,vowels);

printf(“consonants = %d\n”,consonants);

return 0; }

50.Execute a program to display Vowels and consonants in sentence using menu driven choice

#include <stdio.h>

#include <stdlib.h>

int main()

{

char ch;

printf("Enter any Alphabet\n"); //input alphabet from user

scanf("%c",&ch);//store the Entered Alphabet in ch

switch(ch){

//check lower case vowel letters

case 'a':

printf("%c is a vowel",ch);

break;

case 'e':

printf("%c is a vowel",ch);

break;

case 'i':

printf("%c is a vowel",ch);

break;

case 'o':

printf("%c is a vowel",ch);

break;

case 'u':

printf("%c is a vowel",ch);

break;

//check upper case vowel letters

case 'A':

printf("%c is a vowel",ch);

break;

case 'E':

printf("%c is a vowel",ch);

break;

case 'I':

printf("%c is a vowel",ch);

break;

case 'O':

printf("%c is a vowel",ch);

break;

case 'U':

printf("%c is a vowel",ch);

break;

default:

printf("%c is a consonant",ch);

break;

}

getch();

return 0;

}