



C Programs & Output

Q1. Write a C program to compute sum and average of all elements in an array using pointer.

Program	OUTPUT
<pre>#include<stdio.h> void main() { int a[5],*p,i,sum=0,avg; p = &a; printf("Enter Array : "); for(i=0;i<5;i++) { scanf("%d",(p+i)); sum = sum + *(p+i); } avg = sum / i; printf("Sum = %d" ,sum); printf("\nAverage = %d" ,avg); }</pre>	<pre>Enter Array : 3 4 5 6 7 Sum = 25 Average = 5</pre>



Q2. Write a menu driven program to perform the following operations on strings using standard library functions:

- 1. Convert string to uppercase**
- 2. Copy one string to another**
- 3. Compare two strings**
- 4. Concatenate two strings**

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s1[10],s2[10]; int ch; printf("\n1.Convert Strin to Uppercase "); printf("\n2.Copy One String to another "); printf("\n3.Compare Two Strings "); printf("\n4.Concatenate Two Strings "); printf("\nEnter Choice : "); scanf("%d",&ch); printf("Enter First String : "); scanf("%s",s1); printf("Enter Second String : "); scanf("%s",s2); switch(ch) { case 1: {printf("String in Uppercase : %s",strupr(s1)); } break; case 2: { strcpy(s1,s2); printf("Copied String = %s",s1); } break; case 3: { if((strcmp(s1,s2)==0)) printf("Both Strings are Equal"); else printf("Both Strings are Not Equal"); } break; case 4: { strcat(s1,s2); printf("Concatinated String = %s",s1); } break; } }</pre>	<p>1.Convert Strin to Uppercase</p> <p>2.Copy One String to another</p> <p>3.Compare Two Strings</p> <p>4.Concatenate Two Strings</p> <p>Enter Choice : 4</p> <p>Enter First String : vp</p> <p>Enter Second String : indapur</p> <p>Concatinated String = vpindapur</p>



Q3. Write a program to calculate length of string using standard library function.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s[10]; printf("Enter String : "); gets(s); printf("\nLength of String = %d",strlen(s)); getch(); }</pre>	<p>Enter String : vpcsc</p> <p>Length of String = 5</p>

Q4. Write a program to create student structure having fields roll no, name. Accept details of one student and write a function to display the details.

Program	OUTPUT
<pre>#include<stdio.h> struct stud { int rno; char name[10]; }; void display(struct stud s1) { printf(" %d %s",s1.rno,s1.name) ; } void main() { struct stud s; printf("Enter Student Details : "); scanf("%d%s",&s.rno,s.name); display(s); }</pre>	<p>Enter Student Details : 11 UMESH</p> <p>11 UMESH</p>



Q5. Write a program to interchange two numbers using pointers.

Program	OUTPUT
<pre>#include<stdio.h> void main() { int *a,*b,*t; printf("Enter A : "); scanf("%d",a); printf("Enter B : "); scanf("%d",b); *t=*a; *a=*b; *b=*t; printf("After Interchange : \n"); printf("\nA = %d",*a); printf("\nB = %d",*b); }</pre>	<p>Enter A : 40 Enter B : 50</p> <p>After Interchange :</p> <p>A = 50 B = 40</p>

Q6. Write a program to perform the following operations on two strings using standard library functions: a. Copy b. Compare.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s1[10],s2[10]; printf("Enter First String : "); gets(s1); printf("Enter Second String : "); gets(s2); if((strcmp(s1,s2)==0)) printf("Both Strings are Equal"); else printf("Both Strings are Not Equal"); printf("\nEnter String : "); gets(s1); strcpy(s2,s1); printf("Copied String = %s",s2); }</pre>	<p>Enter First String : vpcsc Enter Second String : vpp Both Strings are Not Equal Enter String : indapur Copied String = indapur</p>



Q7. Write a C program to compare two strings using standard library function.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s1[10],s2[10]; printf("Enter First String : "); gets(s1); printf("Enter Second String : "); gets(s2); if((strcmp(s1,s2)==0)) printf("\nBoth Strings are Equal"); else printf("\nBoth Strings are Not Equal"); }</pre>	<p>Enter First String : vpcsc</p> <p>Enter Second String : vpcsc</p> <p>Both Strings are Equal</p>

Q8. Write a C program to count the number of vowels and consonants in a string.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s[10]; int i=0,v=0,c=0; printf("Enter String : "); gets(s); for(i=0;i<strlen(s);i++) { if(s[i]=='a' s[i]=='e' s[i]=='i' s[i]=='o' s[i]=='u') v++; else c++; } printf("\nVowels = %d",v); printf("\nConsonants = %d",c); }</pre>	<p>Enter String : indapur</p> <p>Vowels = 3</p> <p>Consonants = 4</p>



Q9. Write a C program to concatenate two strings using standard library function.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s1[10],s2[10]; printf("Enter First String : "); gets(s1); printf("Enter Second String : "); gets(s2); strcat(s1,s2); printf("\nConcatinated String = %s" ,s1); }</pre>	<p>Enter First String : vp</p> <p>Enter Second String : Indapur</p> <p>Concatinated String = vpIndapur</p>

Q10. Write a program to accept details of n employees (id, name, salary).Display all the details. Also, search for an employee by name.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> struct emp { int id,salary; char name[10]; }; void main() { struct emp e[5]; char nm[10]; int i,flag=0; printf("Enter Emp Details : "); for(i=0;i<5;i++) scanf("%d%s%d",&e[i].id,e[i].name,&e[i].salary); printf("\nEnter Emp Name for Search:"); scanf("%s",nm); for(i=0;i<5;i++) { if((strcmp(e[i].name,nm)==0)) { flag=1; break; } } if(flag==1) printf("\n Given Employee is Present"); else printf("\n Given Employee is Not Present"); }</pre>	<p>Enter Emp Details :</p> <p>11 ABC 4500</p> <p>22 RTY 8769</p> <p>33 SAR 6000</p> <p>44 NML 7000</p> <p>55 DFG 8000</p> <p>Enter Emp Name for Search: SAR</p> <p>Given Employee is Present</p>



Q11. Write a C program to create a structure named book (book_name, author_name and price) and display all book details having price >200 in a proper format.

Program	OUTPUT
<pre>#include<stdio.h> #include<conio.h> struct book { char bname[10],author[10]; int price; }; void main() { struct book b[5]; int i; printf("Enter Book Details : "); for(i=0;i<5;i++) scanf("%s%s%d",b[i].bname,b[i].author,&b[i].price); printf("\nBooks having Price >200 :"); for(i=0;i<5;i++) { if(b[i].price>=200) printf("\n %s %s %d ",b[i].bname,b[i].author,b[i].price); } }</pre>	<p>Enter Book Details :</p> <p>CPP MAX 300</p> <p>JAVA TECH 150</p> <p>PHP VIS 450</p> <p>JS TECH 120</p> <p>NET VIS 100</p> <p>Books having Price >200 :</p> <p>CPP MAX 300</p> <p>PHP VIS 450</p>

Q12. Write a program to accept a string and an index from user and displays the character at that specific index.

Program	OUTPUT
<pre>#include<stdio.h> #include<string.h> void main() { char s[10]; int i; printf("Enter String : "); gets(s); printf("Enter Index : "); scanf("%d",&i); printf("\nCharacter at given Index is = %c",s[i]); }</pre>	<p>Enter String : vpcsc</p> <p>Enter Index : 2</p> <p>Character at given Index is = c</p>