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| 1 | Write a program to check whether a string is balanced or not.  I/P - “{([([[]]])} “ |
|  | main()  {  char x[5];  char y[5];  char str[]="{([([[]]])}";  int len=strlen(str);  int m=len/2;  int i=0,j=len-1,f,c=0;  if(len%2==1)  printf("Inbalance");  else  {  while(i<m && j>=m)  {  f=check(str[i],str[j]);  if(f==1)  c++;  i++;  j--;  }  if(c==m)  printf("Balance");  else  printf("Inbalance");  }  }  int check(int x,int y)  {  if(x=='(' && y==')')  return 1;  else  if(x=='[' && y==']')  return 1;  else  if(x=='{' && y=='}')  return 1;  else  return 0;  } |
| 2 | There is an array with an input {0,1,2,3,5,6,9} . Write a program to show the combinations for which the sum is 9. Ex - {3,6} , {0,9} ... etc |
|  | void findPairs(int arr[],int n,int sum)  {  int temp,bin[1000]={0},i;  for(i=0;i<n;i++)  {  temp=sum-arr[i];  if(temp>=0&&bin[temp]==1)  {  printf(" %d %d ",temp,arr[i]);  }  bin[arr[i]]=1;  }  }  int main()  {  int arr[]={0,1,2,3,5,6,9};  int n=sizeof(arr)/sizeof(arr[0]);  findPairs(arr,n,9);  } |
| 3 | Write a program to convert a string in following format –  I/P - “ aaaaabbbccccdd ”  O/P - a5b3c4d2 |
|  | main()  {  char x[]="dddddccccccccaaabbbbbbcccc";  char y[20];  memset(y,0,sizeof(y));  int c=1,i=0;  char ch;  char \*p=x;  while(\*p!=0)  {  ch=\*p;  while(ch==\*(p+1))  {  c++;  p++;  }  p++;  y[i++]=c+48;  y[i++]=ch;  c=1;  }  printf("%s",y);  } |
| 4 | Write a program to convert a string in the following format  I/P - a5b3c4d2  O/P - “ aaaaabbbccccdd ” |
|  | main()  {  char x[]="a5b9c4";  char y[100];  int i,j,k=0,n;  char ch;  for(i=0;i<strlen(x);i+=2)  {  ch=x[i];  n=x[i+1]-48;  for(j=0;j<n;j++)  {  y[k]=ch;  k++;  }  }  y[k]=0;  printf("%s",y);  } |