1. Write a C program which can input a charterer and display whether it is an uppercase letter, lowercase letter or digit.

#include<stdio.h>

int main()

{

char x;

printf("Enter the charterer:\n");

scanf(" %c",&x);

if(x>='a' && x<='z')

{

printf("The charterer is a lowercase letter");

}

if(x>='A' && x<='Z')

{

printf("The charterer is an uppercase letter");

}

if(x>='0' && x<='9')

{

printf("The charterer is a digit");

}

return 0;

}

2. Write a C program which can input three lower case letters and display whether any duplicate exists or not.

#include<stdio.h>

int main()

{

char x,y,z;

printf("Enter the three lower case Alphabets one by one:\n");

scanf(" %c%c%c",&x,&y,&z);

if(x>='a'&& x <='z' || y>='a'&& y<='z' || z>='a'&& z<='z' )

{

if(x==y || y==z || z==x)

{

printf("Yes, duplicate does exists.");

}

else

{

printf("No, duplicate does not exists.");

}

}

return 0;

}

3. Write a C program which can input some letters and display ratio between uppercase and lowercase letters.

#include<stdio.h>

int main()

{

char x[1000];

int i,n,a,b;

printf("Enter the total number of the charterers:\n");

scanf("%d",&n);

printf("Enter the charterers one by one:\n");

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

{

scanf(" %c",&x[i]);

}

a=0;

b=0;

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

{

if(x[i]>='a' && x[i]<='z')

{

a++;

}

if(x[i]>='A' && x[i]<='Z')

{

b++;

}

}

printf("The ratio between uppercase and lowercase letters: %d:%d",a,b);

return 0;

}

4. Write a C program which can input some letters into an array and change each uppercase letter to it’s next letter keeping lowercase letter unchanged.

#include<stdio.h>

int main()

{

char x[1000],a;

int i,n;

printf("Enter the total number of the charterers:\n");

scanf("%d",&n);

printf("Enter the charterers one by one:\n");

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

{

scanf(" %c",&x[i]);

}

a=0;

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

{

if(x[i]>='a' && x[i]<='z')

{

printf("%c\t",x[i]);

}

if(x[i]>='A' && x[i]<='Z')

{

a=x[i]+1;

printf("%c\t",a);

}

}

return 0;

}

5. Write a C program which can input some letters and display how many uppercase vowels and how many lowercase vowels exist.

#include<stdio.h>

int main()

{

char x[1000];

int i,n,a,b;

printf("Enter the total number of the charterers:\n");

scanf("%d",&n);

printf("Enter the charterers one by one:\n");

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

{

scanf(" %c",&x[i]);

}

a=0;

b=0;

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

{

if(x[i]>='a' && x[i]<='z')

{

if(x[i]=='a' || x[i]=='e' || x[i]=='i' || x[i]=='o' || x[i]=='u')

{

a++;

}

}

if(x[i]>='A' && x[i]<='Z')

{

if(x[i]=='A' || x[i]=='E' || x[i]=='I' || x[i]=='O' || x[i]=='U')

{

b++;

}

}

}

printf("Total number of uppercase vowels: %d\nTotal number of lowercase vowels: %d",b,a);

return 0;

}

6. Write a C program which can input some letters and interchange each one case.

#include<stdio.h>

int main()

{

char x[1000],a;

int i,j,n;

printf("Enter the total number of alphabets:\n");

scanf("%d",&n);

printf("Enter the Alphabets one by one:\n");

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

{

scanf(" %c",&x[i]);

}

printf("The reverse form of the characters:\n");

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

{

if(x[i]>='a'&& x[i]<='z')

{

a=x[i]-32;

printf("%c\t",a);

}

if( x[i]>='A' && x[i]<='Z')

{

a=x[i]+32;

printf("%c\t",a);

}

}

return 0;

}

7. Write a C program which can input some lowercase letters and display which vowels appear most.

#include<stdio.h>

int main()

{

char x[1000];

int i,n,a,b,c,d,e;

printf("Enter the total number of the charterers:\n");

scanf("%d",&n);

printf("Enter the charterers one by one:\n");

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

{

scanf(" %c",&x[i]);

}

a=b=c=d=e=0;

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

{

if(x[i]>='a' && x[i]<='z')

{

if(x[i]=='a')

{

a++;

}

if( x[i]=='e')

{

b++;

}

if(x[i]=='i')

{

c++;

}

if(x[i]=='o')

{

d++;

}

if( x[i]=='u')

{

e++;

}

}

}

if(a>b && a>c && a>d && a>e)

{

printf("'a' vowels appear most\n");

}

if(b>a && b>c && b>d && b>e)

{

printf("'e' vowels appear most\n");

}

if(c>a && c>b && c>d && c>e)

{

printf("'i' vowels appear most\n");

}

if(d>a && d>b && d>c && d>e)

{

printf("'o' vowels appear most\n");

}

if(e>a && e>b && e>c && e>d)

{

printf("'u' vowels appear most\n");

}

return 0;

}