**Assignment 2**

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**Section:** C9

**Question 1:**

#include<iostream>

using namespace std;

int main()

{

int count=0;

char arr[50];

cout << "Input Characters:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

cout << "Reverse String is:" << endl;

for (int i = count; i>=0; i--)

{

cout << arr[i];

}

}

**Question 2:**

#include<iostream>

using namespace std;

int main()

{

int count = 0;

char arr1[60];

cout << "Input Array:" << endl;

cin.getline(arr1, 60);

for (int i = 0; arr1[i]!='\0'; i++)

{

count++;

}

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

{

if (arr1[i]=='a'||arr1[i]=='A')

{

arr1[i] = 'b';

}

else if (arr1[i] == 'p' || arr1[i] == 'P')

{

arr1[i] = 'q';

}

else if (arr1[i] == 'z' || arr1[i] == 'Z')

{

arr1[i] = 'a';

}

else

{

}

}

cout << "After changing letter in the sentence: ";

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

cout << arr1[i];

}

cout << endl;

}

**Question 3:**

#include<iostream>

using namespace std;

int main()

{

char ch;

int ascii;

int count=0;

char arr[100];

cout << "Input Array:" << endl;

cin.getline(arr, 100);

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

{

count++;

}

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

{

//checking while setting into ch to check for first index

ch = arr[i];

if (i==0)

{

ascii = ch;

if (ascii>=97&&ascii<=122)

{

ascii = ascii - 32;

ch = ascii;

arr[i] = ch;

}

}

if (ch==' ')

{

ch = arr[i + 1];

ascii = ch;

if (ascii>=97&&ascii<=122)

{

ascii = ascii - 32;

ch = ascii;

arr[i + 1] = ch;

}

}

}

cout << "After Conversion:" << endl;

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

{

cout << arr[i];

}

}

**Question 4:**

#include<iostream>

using namespace std;

int main()

{

int lword = 0;

int count = 0;

char arr[100];

cout << "Input Sentence:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

int index = 0;

cout << "Longest String of Sentence is:" << endl;

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

{

if (arr[i] == ' ')

{

if (index != 0)

{

lword++;

}

index = 0;

}

else

{

index = i;

for (int i = index; arr[i]!=' '; i++)

{

cout << arr[i];

}

}

}

}

**Question 5:**

#include<iostream>

using namespace std;

int main()

{

int lword = 0;

int count = 0;

char arr[100];

cout << "Input Word:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

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

{

for (int i = 0; i < count - 1; i++)

{

if (arr[i] > arr[i + 1])

{

int temp = arr[i];

arr[i] = arr[i + 1];

arr[i + 1] = temp;

}

}

}

cout << endl;

cout << "Sorted array :";

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

{

cout << arr[i];

}

return 0;

}

**Question 6:**

#include <iostream>

using namespace std;

int main() {

cout << "Original string: eagerer -> " << Check\_chars("eagerer") << endl;

cout << "\nOriginal string: eaglets -> " << Check\_chars("eaglets") << endl;

cout << "\nOriginal string: eardrop -> " << Check\_chars("eardrop") << endl;

return 0;

}

bool Check\_chars(string text) {

int len = int(text.size());

for (int i = 0; i < len; i++) {

if (text[i] == 'e' || text[i] == 'E') {

if (i + 2 < len && (text[i + 2] == 'g' || text[i + 2] == 'G'))

return true;

}

if (text[i] == 'g' || text[i] == 'G') {

if (i + 2 < len && (text[i + 2] == 'e' || text[i + 2] == 'e'))

return true;

}

}

return false;

}

**Question 7:**

#include<iostream>

using namespace std;

int main()

{

int vowels = 0;

int count = 0;

char arr[100];

cout << "Input Word:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

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

if (arr[i] == 'a' || arr[i] == 'e' || arr[i] == 'i'

|| arr[i] == 'o' || arr[i] == 'u') {

vowels++;

}

}

cout << endl;

cout << "Total vowles in the char array are: " << vowels<< endl;

cout << endl;

}

**Question 8:**

#include<iostream>

using namespace std;

int main()

{

int c= 0;

int count = 0;

char arr[100];

cout << "Input Word:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

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

if (arr[i] == ' ') {

c++;

}

}

cout << "The total word in the given array :" << c+ 1 << endl;

cout << endl;

}

**Question 9:**

#include<iostream>

using namespace std;

int main()

{

int c= 0;

int count = 0;

char arr[100];

cout << "Input array:" << endl;

cin.getline(arr, 50);

int ch1 = 0;

int ch2 = 0;

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

{

if (arr[i] == arr[0])

ch1++;

if (arr[i] == arr[0])

ch2++;

}

if (ch1 == ch2)

{

cout << "Characters present equally : true" << endl;

}

else

{

cout << "Characters present not equally : False" << endl;

}

}

**Question 10:**

#include<iostream>

using namespace std;

int main()

{

int flag = 0;

int count = 0;

char arr[100];

cout << "Input Word:" << endl;

cin.getline(arr, 50);

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

{

count++;

}

cout << "Enter any sentence" << endl;

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

if (arr[i] != arr[count - i - 1]) {

flag = 1;

break;

}

}

if (flag) {

cout << "Not Palindrome" << endl;

}

else {

cout << "Palindrome" << endl;

}

cout << endl;

}