The obstacles I faced during the assignment was to convert the char array string to string array and then passing the reference of char array to parameter in method. Also I have faced problem to know when the char array ends for that I searched it and came to know by using it with character ‘\0’, now the main obstacle was in jumble string method where I jumble first half of string with left hand side and other half side with right hand side.

Description:

The assignment was all based on string sorting techniques and traversing so the program that used again is counting the no of characters in string

char temp[100];

int i = 0;

while (temp [i] != '\0') // goes from top to bottom and count no of characters

{

i++;

}

Then other code was to compare the characters with asci code

while (ctr[i] != '\0') //compare each character in string with small and capital alphabets and convert samll to capital and capital to samll

{

int val = ctr[i];

if (val >= 65 && val <= 90)

{

val = val + 32;

}

else if (val >= 97 && val <= 122)

{

val = val - 32;

}

temp[i] = val;

i++;

}

In this code characters are checked that where they are small alphabets or capital then capital are converted into small by adding the 32 and then copying the integer values to character variable, and also small alphabets is converted into capital by subtracting 32;

Test:

string s;

for (;;)

{

cerr << "Enter text: ";

getline(cin, s);

char mesage[100];

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

if (s == "quit")

break;

cerr << "isUppercase returns ";

if (isUppercase(mesage))

cerr << "true" << endl;

else

cerr << "false" << endl;

cerr << "getFirstWord returns ";

cerr << getFirstWord(mesage) << endl;

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

s = "hello there";

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

cout << getFirstWord(mesage) << " hi " << endl;

assert(getFirstWord(mesage) == "hello");

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

s = "WOW!!";

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

assert(isUppercase("WOW!!"));

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

s = "WOW!!";

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

assert(!isUppercase("WoW!!"));

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

s = "\*\*\*hello there";

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

assert(getFirstWord(mesage) == "hello");

for (int i = 0; i < 100; i++)

mesage[i] = '\0';

s = "\*\*\*hello there";

for (int i = 0; i < s.length(); i++)

{

mesage[i] = s[i];

}

assert(extractWord(mesage) == "hello");

string str(mesage);

assert(str == "there");

assert(extractWord(mesage) == "there");

string str1(mesage);

assert(str1 == "");

assert(extractWord(mesage) == "");

string str2(mesage);

assert(str2 == "");

cerr << "All tests succeeded" << endl;

Output:

Enter text: isUppercase returns true

getFirstWord returns

All tests succeeded