Assignment # 1

Question 2

Q2:Your task is to design a program that can (i) convert any given string into an encrypted form, (ii) an encrypted

sequence to string. You cannot use string date type; however, you can use char \*.

There are two encrypted schemes.

a. First one converts letter to another letter. A to Z, Y to B, X to C and so on.

b. Second one converts letter to numbers. The letter is encrypted through its ascii value mod by 23. For

example, if letter A’s ascii is 65, then 65%23 is 19. For letter A, 19 should be stored

//Ans:

//imported the library in visual studio

#include <iostream>;

#include "conio.h";

#include "../MyEncryptionLibrary/encryption.h"

using namespace std;

using namespace encryption;

void main()

{

char outstring[1000] = "";//Intialize Char datatype with size

char instrg[1000];//Intialize Char datatype with size

int outnum[1000]; // Intialilzing Numaric datatype with size

int option = 0;

cout << "Enter you String " << endl;

cin.getline(instring, 1000);//Get Input String from user

cout << "Select options" << endl << "1 for Alpha Encrypt" << endl << "2 for Num Encryp" << endl;

cin >> option;//Get Selection Input from user for encryption

for (int i = 0; i < instring[i]; i++) {//Loop for every chracter of string

if (option == 1) {

outpt[i] = AlphabetEncrypt(instring[i]);//Calling Library Function for encryption

}

else if (option == 2) {

outnum[i] = NumericEncrypt(instring[i]);//Calling Library Function for encryption

}

else {

cout << "Please Enter valid Number" << endl;

}

}

cout << "Encrypt Script is this ";

for (int i = 0; i < outpt[i]; i++) {

cout << outpt[i]; //Getting Alphabetic encrypted String

}

for (int i = 0; i < outnum[i]; i++) {

cout << outnum[i];//Getting Numaric encrypted String

}

}

#pragma once

namespace encrypt {

char AlphabetEncrypt(char x)

{

if (x == 'a') {

char encryptchar = 'z';

return encryptchar;

}

if (x == 'A') {

char encryptchar = 'Z';

return encryptchar;

}

if (x == 'b') {

char encryptchar = 'y';

return encryptchar;

}

if (x == 'B') {

char encryptchar = 'Y';

return encryptchar;

}

if (x == 'c') {

char encryptchar = 'x';

return encryptchar;

}

if (x == 'C') {

char encryptchar = 'X';

return encryptchar;

}

if (x == 'd') {

char encryptchar = 'w';

return encryptchar;

}

if (x == 'D') {

char encryptchar = 'W';

return encryptchar;

}

if (x == 'e') {

char encryptchar = 'v';

return encryptchar;

}

if (x == 'E') {

char encryptchar = 'V';

return encryptchar;

}

if (x == 'f') {

char encryptchar = 'u';

return encryptchar;

}

if (x == 'F') {

char encryptchar = 'U';

return encryptchar;

}

if (x == 'g') {

char encryptchar = 't';

return encryptchar;

}

if (x == 'G') {

char encryptchar = 'T';

return encryptchar;

}

if (x == 'h') {

char encryptchar = 's';

return encryptchar;

}

if (x == 'H') {

char encryptchar = 'S';

return encryptchar;

}

if (x == 'i') {

char encryptchar = 'r';

return encryptchar;

}

if (x == 'I') {

char encryptchar = 'R';

return encryptchar;

}

if (x == 'j') {

char encryptchar = 'q';

return encryptchar;

}

if (x == 'J') {

char encryptchar = 'Q';

return encryptchar;

}

if (x == 'k') {

char encryptchar = 'p';

return encryptchar;

}

if (x == 'K') {

char encryptchar = 'P';

return encryptchar;

}

if (x == 'l') {

char encryptchar = 'o';

return encryptchar;

}

if (x == 'L') {

char encryptchar = 'O';

return encryptchar;

}

if (x == 'm') {

char encryptchar = 'n';

return encryptchar;

}

if (x == 'M') {

char encryptchar = 'N';

return encryptchar;

}

if (x == 'n') {

char encryptchar = 'm';

return encryptchar;

}

if (x == 'N') {

char encryptchar = 'M';

return encryptchar;

}

if (x == 'o') {

char encryptchar = 'l';

return encryptchar;

}

if (x == 'O') {

char encryptchar = 'L';

return encryptchar;

}

if (x == 'p') {

char encryptchar = 'k';

return encryptchar;

}

if (x == 'P') {

char encryptchar = 'K';

return encryptchar;

}

if (x == 'q') {

char encryptchar = 'j';

return encryptchar;

}

if (x == 'Q') {

char encryptchar = 'J';

return encryptchar;

}

if (x == 'r') {

char encryptchar = 'i';

return encryptchar;

}

if (x == 'R') {

char encryptchar = 'I';

return encryptchar;

}

if (x == 's') {

char encryptchar = 'h';

return encryptchar;

}

if (x == 'S') {

char encryptchar = 'H';

return encryptchar;

}

if (x == 't') {

char encryptchar = 'g';

return encryptchar;

}

if (x == 'T') {

char encryptchar = 'G';

return encryptchar;

}

if (x == 'u') {

char encryptchar = 'f';

return encryptchar;

}

if (x == 'U') {

char encryptchar = 'F';

return encryptchar;

}

if (x == 'v') {

char encryptchar = 'e';

return encryptchar;

}

if (x == 'V') {

char encryptchar = 'E';

return encryptchar;

}

if (x == 'w') {

char encryptchar = 'd';

return encryptchar;

}

if (x == 'W') {

char encryptchar = 'D';

return encryptchar;

}

if (x == 'x') {

char encryptchar = 'c';

return encryptchar;

}

if (x == 'X') {

char encryptchar = 'C';

return encryptchar;

}

if (x == 'y') {

char encryptchar = 'b';

return encryptchar;

}

if (x == 'Y') {

char encryptchar = 'B';

return encryptchar;

}

if (x == 'z') {

char encryptchar = 'a';

return encryptchar;

}

if (x == 'Z') {

char encryptchar = 'A';

return encryptchar;

}

if (x == ' ') {

char encryptchar = ' ';

return encryptchar;

}

}

int NumericEncrypt(char x)

{

if (x == 'a') {

int ascii = 97;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'A') {

int ascii = 65;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'b') {

int ascii = 98;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'B') {

int ascii = 66;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'c') {

int ascii = 99;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'C') {

int ascii = 67;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'd') {

int ascii = 100;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'D') {

int ascii = 68;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'e') {

int ascii = 101;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'E') {

int ascii = 69;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'f') {

int ascii = 102;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'F') {

int ascii = 70;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'g') {

int ascii = 103;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'G') {

int ascii = 71;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'h') {

int ascii = 104;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'H') {

int ascii = 72;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'i') {

int ascii = 105;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'I') {

int ascii = 73;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'j') {

int ascii = 106;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'J') {

int ascii = 74;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'k') {

int ascii = 107;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'K') {

int ascii = 75;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'l') {

int ascii = 108;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'L') {

int ascii = 76;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'm') {

int ascii = 109;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'M') {

int ascii = 77;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'n') {

int ascii = 110;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'N') {

int ascii = 78;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'o') {

int ascii = 111;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'O') {

int ascii = 79;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'p') {

int ascii = 112;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'P') {

int ascii = 80;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'q') {

int ascii = 113;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'Q') {

int ascii = 81;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'r') {

int ascii = 114;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'R') {

int ascii = 82;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 's') {

int ascii = 115;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'S') {

int ascii = 83;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 't') {

int ascii = 116;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'T') {

int ascii = 84;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'u') {

int ascii = 117;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'U') {

int ascii = 85;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'v') {

int ascii = 118;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'V') {

int ascii = 86;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'w') {

int ascii = 119;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'W') {

int ascii = 87;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'x') {

int ascii = 120;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'X') {

int ascii = 88;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'y') {

int ascii = 121;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'Y') {

int ascii = 89;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'z') {

int ascii = 122;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == 'Z') {

int ascii = 90;

int encryptchar = ascii % 23;

return encryptchar;

}

if (x == ' ') {

int ascii = 32;

int encryptchar = ascii % 23;

return encryptchar;

}

}

}