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Roll No: 42 class:TE

Div:B Batch : B3

CODE:

#include<stdio.h>

#include<ctype.h>

int main()

{

char text[500], ch;

int key; // taking user input

printf("Enter a message to encrypt: ");

scanf("%s", text);

printf("Enter the key: ");

scanf("%d", & key); // visiting character by character

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

ch = text[i]; // check for valid character

if (isalnum(ch)) { // lower case characters

if (islower(ch)) {

ch = (ch - 'a' + key) % 26 + 'a';

} // uppercase characters

if (isupper(ch)) {

ch = (ch - 'A' + key) % 26 + 'A';

} // numbers

if (isdigit(ch)) {

ch = (ch - '0' + key) % 10 + '0';

}

} // invalid character

else {

printf("Invalid Message");

} // adding encoded answer

text[i] = ch;

}

printf("Encrypted message: %s\n", text);

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

ch = text[i]; // check for valid characters

if (isalnum(ch)) { // lower case characters

if (islower(ch)) {

ch = (ch - 'a' - key + 26) % 26 + 'a';

} // uppercase characters

if (isupper(ch)) {

ch = (ch - 'A' - key + 26) % 26 + 'A';

} // numbers

if (isdigit(ch)) {

ch = (ch - '0' - key + 10) % 10 + '0';

}

} // invalid characters

else {

printf("Invalid Message");

} // asding decoded character back

text[i] = ch;

}

printf("After entering valid key\n ");

printf("Decrypted message: %s", text);

return 0;

}

OUTPUT:

