CSE102 HW06

In this homework, you are going to implement a program which encrypts, or decrypts a given message. The message contains only English letters and they are all in lowercase.

Function: void menu()
This is a menu function. User enters a choice to execute corresponding sub-program. When 0 is chosen, the program stops. Whenever a sub-program is finished, your program goes back to menu so that user can execute another sub-program. You are going to use do-while loop and switch case to implement this function. The user will have three different choices, i.e., {1, 2, or 0}. Any other input will be invalid, and program must display menu again when a wrong input is entered.

Sample output if this function is:

```
1. Encrypt
2. Decrypt
0. Exit
Choice:
```

Function: void encrypt_open_msg()
This function reads content of open_msg.txt file, encrypts it, shows encrypted message on screen and then writes to secret_msg.txt file. In encryption, function asks for a key value that is actually a positive integer between 1 and 26 at the beginning. Then, it reads a line of the message, reverses the line, and replaces each character of the line by a corresponding letter in reverse direction. For instance, assume that the key is 5 and line is one word that is "gebze". Reverse of "gebze" is "ezbeg". "ezbeg" becomes "zuwzb" when function replaces each character by 5 in reverse direction (e->z, z->u, b->w, e->z, g->b).

Sample input of the function (content of open_msg.txt):

```
gebze technical university.
```

Sample output of the function:

```
Key: 5
*zuwzb_ozxcidxvg_pidqzmndot
```

Function: void decrypt_secret_msg()
This function reads each line of the message contained in secret_msg.txt, decrypts the secret line, shows the open line on screen and then writes the open line to open_msg.txt file. Decryption of a secret message is obtained by reversing the encryption operations.

Sample input of the function (content of secret_msg.txt):

```
*zuwzb_ozxcidxvg_pidqzmndot
```

Sample output of the function:

```
Key: 5
gebze technical university
```

Function: int find_size_of_line(char line[])
This function calculates number of characters in line[].

Function: void reverse_line(char line[], int line_lenght)
This function reverses content of line[].

Notes:
- You are not allowed to use built-in string functions.
- Maximum line buffer is 1024.
- Space and dot is encrypted as _ and *, respectively. Decryption is the reverse.

Due Date: Defined on Moodle.

Submission Rule: student_no.zip (includes the followings)
- student_no.c
- open_msg.txt
- secret_msg.txt

Grading Policy:
1. If you do not apply submission rule, you will get –20 points.
2. In case of cheating, each participant gets –100.
3. A code which does not compile or run (shows nothing) will be graded as 0 points.

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