

Digital stopwatch project

Requirements :

Introduction:

keyboardhit() function :This function simply stands for keyboard hit. After pressing a key it generates a signal and returns a non zero integer. In this, there are 4 loops, 1st loop for hours, 2nd for minutes, 3rd for seconds and 4th loop for maintaining the speed of seconds(3 loop). After running this program it wait for a keyboard start(s) key to be pressed and when key is pressed, it generates a signal. For storing a keyboard key there is a variable(c), if c is equal to **p key** then it calls the wait function. The thread is running in the background and we are waiting for the start key to be pressed. After pressing s key, the thread again jumps to thread_join function, if **r key** is pressed, then it jumps into reset label and all the loops are again starts with zeros, if **s key** is pressed it jumps into start label and if **e key** is pressed it calls the exit() function and program gets terminated.

To execute the program we use following command :

```
gcc -pthread stopwatch.c -o stopwatch  
./stopwatch
```

Low Level Requirements :

LLR1	In the first the stage the user need to select the options .
LLR2	The options are Press a key : s -> start e -> exit r -> reset p -> pause
LLR3	After pressing any key which the user wants after running this program it wait for a keyboard start(s) key to be pressed and when key is pressed, it generates a signal.

High Level Requirements :

HLR01	User should be able to use this utility
HLR02	User shall be able to use all the key which is used to implement the program.
HLR03	<p>User should able to press the input keys correctly so that the required command can be followed. Those input keys are :</p> <p>Input:</p> <p>Press a key :</p> <p>s -> start</p> <p>e -> exit</p> <p>r -> reset</p> <p>p -> pause</p>

SWOT

ANALYSIS



4W's and 1'H

Who:

For users who want to use the stopwatch to count the time.

What:

Users can easily count time in Hours, Minutes and Seconds.

When:

It can be used to when the users needs stopwatch.

Where:

We can use this application ant where by opening this application and by pressing the correct input key.

How:

We can use this application ant where by opening this application and by pressing the correct input key.

Input:

Press a key :

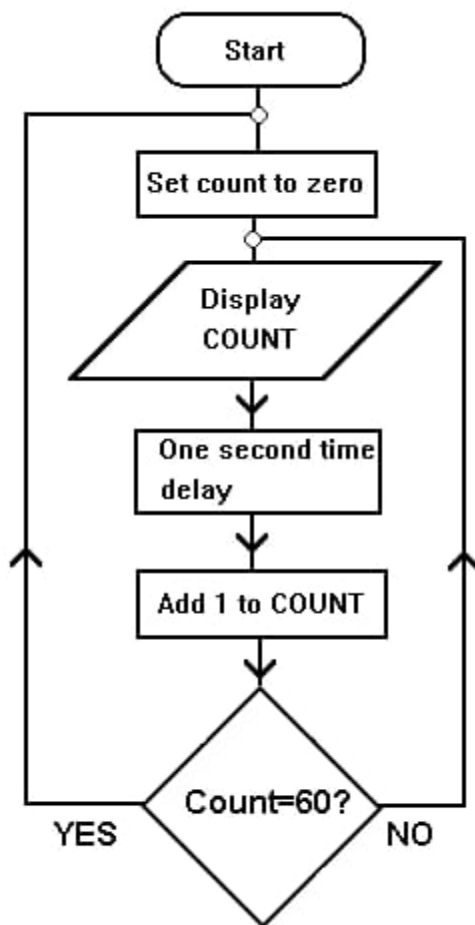
s -> start

e -> exit

r -> reset

p -> pause

DESIGN:



1 MINUTE TIMER

3 Implementation:

Refer:

https://github.com/Manojkumarreddy123/M1_ProjectGoaI_Utility.git

4.Test Plan And Ountput:

The test plan of this Project is execute the program we use following command :

```
gcc -pthread stopwatch.c -o stopwatch ./stopwatch
```

And to to run this file we need to enter a Input key. The Input keys are Input: Press a key :

s -> start

e -> exit

r -> reset

p -> pause

The the Output is executed.

OUTPUT:

