



A countdown timer using python

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Abstract

- A COUNTDOWN TIMER IS AN IDEAL WAY TO SET TARGETS TO COMPLETE TASKS. EXAMPLE: KEEPS A REMINDER FOR THE OVEN, ETC. FOR LARGE-SCALE APPLICATIONS SUCH AS INDUSTRIES, COMPLEX TIMERS ARE USED, WHICH ARE CUSTOM-DESIGNED FOR VARIOUS PURPOSES SUCH AS TRIGGERING OR FLIPPING A SWITCH.
- THIS HAPPENS BECAUSE OF THE TIMER WHICH CALCULATES OUR IDLE TIME. SIMILARLY, AUTOMATIC LOGGING OUT OF WEBSITES, OTP EXPIRATION.

Existing system

- DURING THE CREATION OF THE COUNTDOWN TIMER USING PYTHON PROJECT, WE NEED ABOUT THE TKINTER MODULE , DATA TIME MODULE, TIME LIBRARY, WIN-SOUND MODULE AND WIN10TOAST MODULE .
- WE SAW HOW CAN WE MAKE A GUI WINDOWS , SET A TIMER CLOCK AND ALSO TO DISPLAY THE CURRENT TIME ON OUR WINDOW AND THE USE OF THE COUNTDOWN TIMER IN THE SYSTEM .

Disadvantages of existing system

- THE PROBLEM OF APPLYING THE IMPORTING THE REQUIRED LIBRARIES AND MODULES AND CREATING THE GUI WINDOW [LABELS, BUTTON AND ENTRY FILED]
- ANOTHER CHALLENGE IS THE KEY ESCROW PROBLEM IN DISPLAYING THE CURRENT TIME AND CREATING THE TIMER COUNT DOWN AND ITS FUNCTION .

Proposed system

- WE PROPOSE PLYER IS A LIBRARY THAT PROVIDES US WITH FEATURES TO ACCESS BLUETOOTH , WIFI BATTERY DETAILS , SEND EMAILS GPS AND SO ON.
- FIRST, TKINTER IMPORT MESSAGE BOX IT CAN CREATE MESSAGES BOXES FOR ERRORS TO DISPLAY INFORMATION ETC.
- SECOND, TKINTER IMPORT IS THE USE OF CREATING THE USER INTERFACE FOR THE APPLICATION .

Advantages of proposed system

- COUNT DOWN TIMER IN PYTHON IS ONE MAIN ADVANTAGES OF CREATING A CUSTOM CLASS IS YOU CAN MANAGE ALL THE TIME IN A SINGLE LINE.
- TIME-RESISTANCE
- REMINDER APPLICATIONS

System Requirements

HARDWARE REQUIREMENTS

SYSTEM	: DUAL CORE 2.4 GHZ.
HARD DISK	: 250 GB.
MONITOR	: LCD
MOUSE	: LOGITECH.
RAM	: 2 GB



Software Requirements

Operating system : Windows XP/7.
Coding Language : PYTHON
Database : MYSQL

System Architecture

The image shows a software window titled "CountDown Timer". Inside the window, the text "Set Time" is displayed in a large, bold, yellow font. Below this, there are three spinners for setting the time: "Hour" (set to 0), "Minute" (set to 1), and "Second" (set to 8). Below the spinners are four buttons: "Cancel", "Set", "Start" (green), and "Pause" (red). The "PySeek" logo is visible in the bottom right corner of the window.

Hour	Minute	Second
0	1	8

Buttons: Cancel, Set, Start, Pause

PySeek

Modules

There are four modules:

1. TIME MODULES
2. COUNTDOWN[]
3. DIVMOD[]
4. TIMEFORMAT
5. END='/R'
6. TIME.SLEEP[]

TIME MODULE

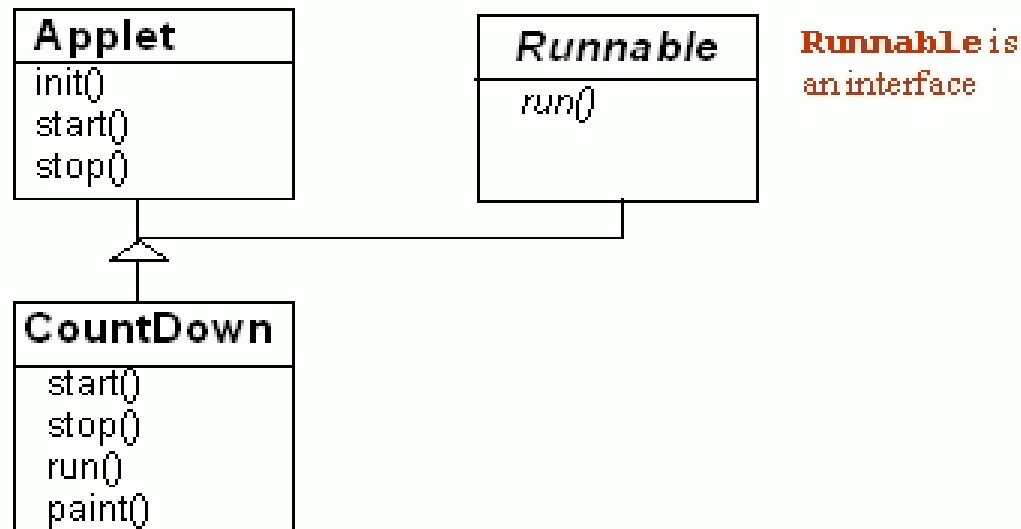
- ▶ THE VALUE IS SENT AS A PARAMETER 'T' TO THE USER-DEFINED FUNCTION COUNTDOWN[] ANY VARIABLE READ USING THE INPUT FUNCTION IS A STRING .SO CONVERT THIS PARAMETER TO 'INT' AS IT IS OF STRING TYPE.
- ▶ IN THIS FUNCTION A WHILE LOOP UNTIL TIME BECOMES 0

COUNTDOWN MODULE

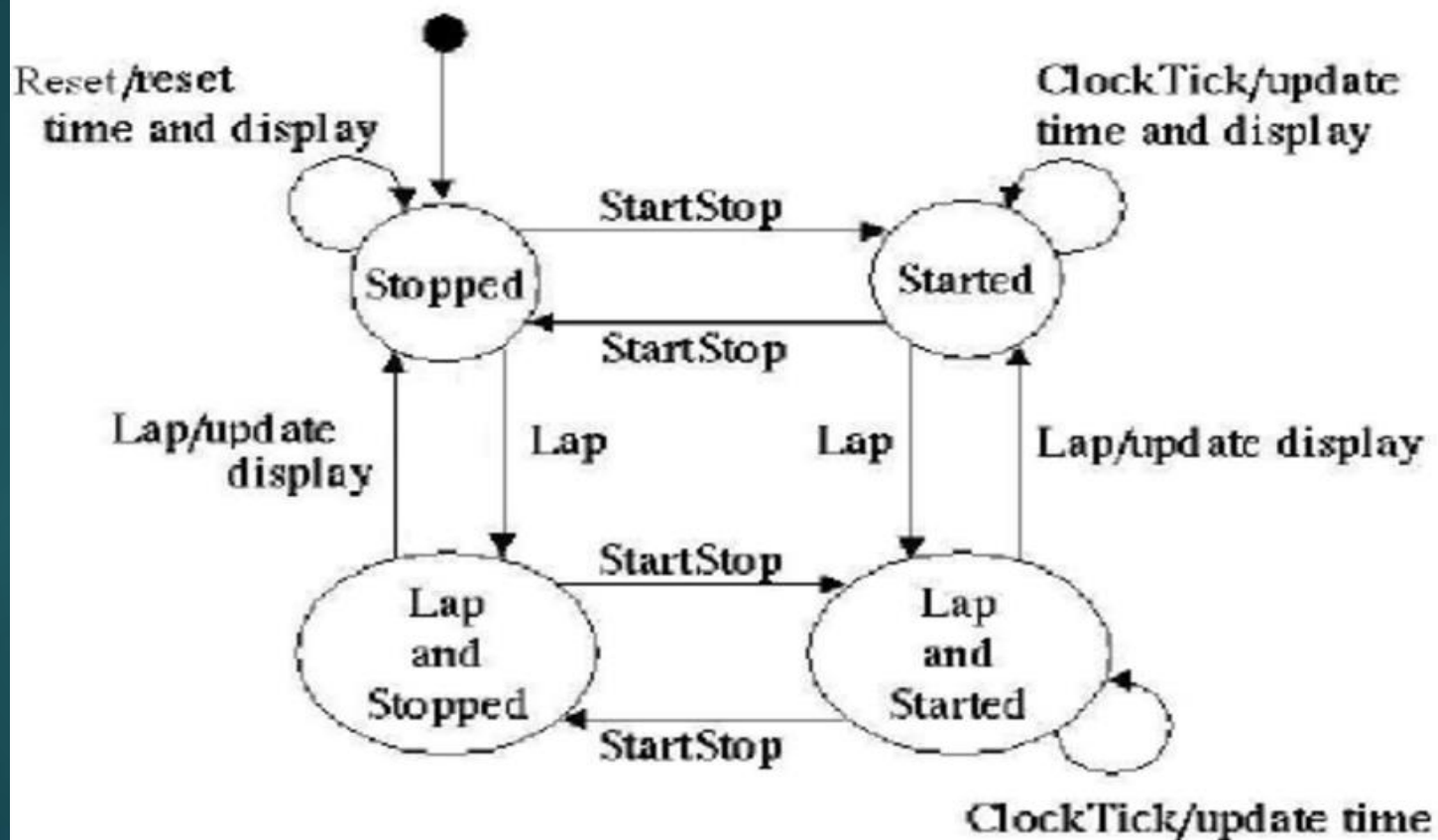
- ▶ IT ALLOWS THE USER TO INPUT THE LENGTH OF THE COUNTDOWN IN SECONDS THEN THE USE OF `DIVMOD[]` TO CALCULATE THE NUMBER OF MINUTES AND SECONDS AND PRINT THE MINUTES AND SECONDS ON THE SCREEN USING THE VARIABLE `TIMEFORMAT`.
- ▶ AND BY USING `END='/R'` WE FOCUS THE CURSOR TO GO BACK TO THE START OF THE SCREEN SO THAT THE NEXT LINE PRINTED WILL OVERWRITE THE PREVIOUS ONE.

Class diagram

CountDown Timer - Class diagram



State chart diagram



Thank you 😊..