

TEAM RUDRA
PRESENTS :

DIGITAL CLOCK BY USING PYTHON

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To study about making of DIGITAL CLOCK using python and python functionalities.

PROBLEM STATEMENT

To solve the amazing part of creating our graphical user interface (GUI) application using python . There are various features available like customize background colour , dynamic GUI etc. We tried to create the project using Tkinter library in the python programming language .



PROCEDURE

As we discussed before , we tried to solve the problem of making the digital clock using GUI (Graphical User Interface) , Tkinter library in python programming .
The procedure of building the digital clock by python is divided into several steps for better understanding .

Steps ➔



STEPS :

The procedure of building digital clock in python , we will need to execute as follows :



Step 1 :

First we will import all the necessary modules to help us building the project. The modules include the Tkinter module .



Step 2 :

We will then define the necessary function to display the Time , Date and Day respectively .



Step 3 :

We will create main window for the application using GUI concepts of python programming . We will add different type of widgets to the window to make our graphical interface better .



hey.py

```
1  from tkinter import *
2  from time import *
3
4  def update():
5      time_string = strftime("%I:%M:%S %p")
6      time_label.config(text=time_string)
7
8      day_string = strftime("%A")
9      day_label.config(text=day_string)
10
11     date_string = strftime("%B %d, %Y")
12     date_label.config(text=date_string)
13
14     window.after(1000,update)
15
16 window = Tk()
17
18 time_label = Label(window,font=("calibri",150),fg="dark green",bg="black")
19 time_label.pack()
20
21 day_label = Label(window,font=("calibri",50,"bold"),fg="black")
22 day_label.pack()
23 date_label = Label(window,font=("calibri",50,"bold"),fg="black")
24 date_label.pack()
25
26 update()
27
28 window.mainloop()
```

EXPLANATION

As in the previous slide code snippet :

We imported our necessary modules and widgets from tkinter to provide the GUI to the application .

Also we have imported the time module to display time , date and day .

First we created one user defined function called update . Inside the scope of that function we defined some variables to store the time, date and day in a string format called time_string , date_string and day_string respectively .

Add into the Label we defined some inbuilt functions to retrieve the real time , date and day in string format called strftime("%I:%M:%S %p"), strftime("%B %d, %Y") , strftime("%A") .

To make Label variable we used config method . Then to update the window we used window.after() .



EXPLANATION



Then we assigned our window object as Tk().

Then the prebuild time , date and day Label , we have to assign here. Also here we customized the font style , size and colors as required .

To add to the window we have to use .pack method .

To update the window we used update function and to render our clock continuously we used our window.mainloop() funtion .

OUTPUT:



Monday

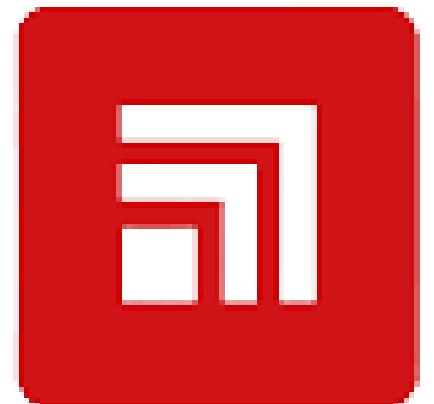
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RESULT:

As the previous slide we got a Graphical user Interface showing the real Time , Date and Day respectively .



THANK YOU FOR YOUR ATTENTION



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