Creating a digital clock by using python

In this video, we will see how to create a digital clock by using python programing language.

This is a very simple python project like other previous python projects we see.

At the end of this python project, you can create a very simple and attractive digital clock by writing some lines of code in python.

Ok, for more understanding

now I will show you what this digital clock looks like.

For that

I run this python code and

As you see this is a digital clock and it shows the current time and is updated every second.

So

Today's video task is, creating this type of digital clock by using python programing language.

Ok, now we can start coding to create our own digital clock

Ok, when we come to this video this is a very simple python project which helps you to create a very simple digital clock.

Now we can start coding this project

For that

I use PyCharm python IDE.

You can also use this python ide or you can use your favorite python IDE.

For me PyCharm is the beast IDE for these types of python automation projects.

For that I open PyCharm and create a new python file.

As you see this is a blank python file which is ready to write python code.

After that

We need to import important python modules

For this project, we need a user interface module and also a time module for displaying the current time.

For that

First, I import the Tkinter python module.

This Tkinter module helps us to create a popup display window for showing our digital click.

Tkinter is one of python user interface module, so I want to use this tkinter module for this python project.

So,

I write

From Tkinter Import *

```
from tkinter import *
```

This star is used to import everything from this tkinter module

So, from tkinter module I import everything.

Ok now we import this python module

The next important python module we need to create this digital clock is time module.

This time module is used to display your computer time in the program.

So, we need to import this python module.

For that I write

From time import strftime

```
from time import strftime
```

this strftime is a function in the time module and used to display our operating system time.

Ok,

Now we finish importing important python modules the next point is creating a popup window to display time by using tkinter window.

For that

I create an object by using TK() class ffrom the tkinter module.

So

I write

Root = TK() like this

```
root = Tk()
```

This program creates a tkinter window to display a time.

After that we need to give the title for the window

For that.

Root.title()

And inside this parenthesis you can give your title.

For this program I give the title, digital clock.

Like this.

```
root.title("Digital Clock")
```

this code helps us to give the title for our project.

Ok, after that

We need to style and label our window

For that, I write

Label = Label()

And inside this parenthesis, I pass root,

Font, background, and foreground color.

You can give any font type, font size, and also you can give any color for the background and foreground color.

For this python project, I give the font

```
font = ("areal", 160, "bold"),
bg="black",fg="white"
```

ok, this is the label for the digital clock and at the end, I want to pack this label for that I write

.(dot) pack

And

Inside this pack parenthesis, I write

```
(anchor = "center",fill =
"both",expand=1)
```

Or you can write

Label.pack()

And inside this pack parantesis

You can write like this

```
Label.pack(anchor = "center",fill =
"both",expand=1)
```

By the way, this packing method in Tkinter packs widgets to rows and columns for label positions.

So, you can use this packing method.

Ok,

Now we finish the styling and labeling of our window.

After that, we move to the next step which is creating a function to display time on the label.

So, as we know to create a function python we use

Def keyword.

For that, I write

Def time():

This time is a function name you can give any name you want to give for the function name.

For this function name, I give time for simplicity.

Ok,

After that inside this time function

I create a variable string

String = strftime()

And inside this parenthesis, I write

Hour, minute, and second. And at the end I put

P for displaying am and pm.

This strftime is a function inside the time python module. So using this function we can display time on labels.

Ok, after that I write

Label.config()

And inside this, I write

text = string

like this.

```
label.config(text = string)
```

this config function helps us to display string variables on the label window.

Ok,

Next, I write

Label.after()

And inside this

100, time

Like this

```
label.after(1000, time)
```

this program helps us to update every 1000 microseconds.

```
def Time():
    string = strftime("%H:%M:%S %p")
    label.config(text=string)
    label.after(1000, Time)
```

Ok, now we finish our program the next is calling this function and running it.

As we know to call any function in python we need to write a function name so,

To call this function I write this function name

For that, I write

Time()

Like this

```
Time()
```

And at the end

I write

Root.main loop()

```
root.mainloop()
```

For opening and controlling our Tkinter window.

So this root.main loop is also important.

Ok, now I run this python program and see what it looks like.

As you see this program works

It shows our computer time like this.

You can also change the font for the label or colors for the styling of this window.

Ok, this is all about today's video thanks for watching I will see you in the next video

Thanks again.

!!! The Full Code !!!

```
# Importing Python Modules
from tkinter import *
from time import strftime

root = Tk()
root.title("Digital Clock")

label = Label(root, font=("areal", 160, "bold"),
bg="black", fg="white")
label.pack(anchor="center", fill="both", expand=1)

def Time():
    string = strftime("%H:%M:%S %p")
    label.config(text=string)
    label.after(1000, Time)

Time()
root.mainloop()
```

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So, tkinter is