

**Project python**

**Submitted to**

**Sir sakib / sir affan**

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```
from tkinter import *
```

```
from tkinter import messagebox    (imported from tkinter alert boxes that  
comes during error)
```

```
import requests    (used for sending request on server)
```

```
import webbrowser
```

```
#Api Key        (news website and to get response)
```

```
apiKey = 'cb7d1cb253e14c69bf3b298c238061b2'
```

```
#Base Url
```

```
BASE_URL = f'http://newsapi.org/v2/top-  
headlines?country=in&category={type}&apiKey=' + apiKey
```

```
#Main Class    (constructor)
```

```
class NewsApp:
```

```
    #Accessing Variables
```

```
    global apiKey, type
```

```
    #Class Constructor
```

```
    def __init__(self, root):
```

```
        self.root = root
```

```
    #Defining height and width to the window    (defining geometry)
```

```
self.root.geometry('1350x700+0+0')
```

```
#Title of Window
```

```
self.root.title("News App")
```

```
# =====variables=====# (categorizing news)
```

```
self.newsCatButton = []
```

```
self.newsCat = ["general",
```

```
                "entertainment",
```

```
                "business",
```

```
                "sports",
```

```
                "technology",
```

```
                "health"]
```

```
# =====title frame=====#
```

```
bg_color = "#404040" (font plus colour of displayed news)
```

```
text_area_bg = "#b8e0c4"
```

```
basic_font_color = "#ccc4c4"
```

```
#Title label
```

```
title = Label(self.root,
```

```
              text="NewsPaper Software",
```

```
font=("times new roman",30, "bold"),  
pady=2,  
bd=12,  
relief=GROOVE,  
bg=bg_color,  
fg=basic_font_color).pack(fill=X)
```

### **#Label Frame**

```
F1 = LabelFrame(self.root,  
                 text="Category",  
                 font=("times new roman", 20, "bold"),  
                 bg=bg_color,  
                 fg=basic_font_color,  
                 bd=10,  
                 relief=GROOVE)
```

### **#Placing widgets**

```
F1.place(x=0, y=80,  
         width=300,  
         relheight=0.88)
```

### **#Displaying all categories from list**

```
for i in range(len(self.newsCat)):
```

```
b = Button(F1, text=self.newsCat[i].upper(),  
           width=20,  
           bd=7,  
           font="arial 15 bold")
```

### **#Placing Categories**

```
b.grid(row=i,  
       column=0,  
       padx=10,  
       pady=5)
```

```
b.bind('<Button-1>', self.Newsarea)  
self.newsCatButton.append(b)
```

```
# =====news frame=====
```

```
F2 = Frame(self.root,  
           bd=7,  
           relief=GROOVE)
```

### **#Placing Frame**

```
F2.place(x=320,  
         y=80,  
         relwidth=0.7,
```

**relheight=0.8)**

```
news_title = Label(F2,  
    text="News Area",  
    font=("arial", 20, "bold"),  
    bd=7, relief=GROOVE).pack(fill=X)
```

```
scroll_y = Scrollbar(F2, orient=VERTICAL)
```

#### **#TextArea**

```
self.txtarea = Text(F2,  
    yscrollcommand=scroll_y.set,  
    font=("times new roman", 15, "bold"),  
    bg=text_area_bg,  
    fg="black")
```

#### **#Placing textarea**

```
scroll_y.pack(side=RIGHT, fill=Y)
```

```
scroll_y.config(command=self.txtarea.yview)
```

```
self.txtarea.insert(
```

```
    END, "PLEASE SELECT ANY CATEGORY TO SHOW HEADLINES AND  
    PLEASE BE PATIENT IT DEPENDS ON YOUR INTERNET CONNECTIONS!!!!")
```

```
self.txtarea.pack(fill=BOTH, expand=1) (news get displayed  
here)
```

```
self.txtarea.tag_configure("link",  
                             foreground="green",  
                             underline=True)
```

```
self.txtarea.tag_bind("link",  
                       "<Button-1>",  
                       self.open_link)
```

```
def Newsarea(self, event):  
    type = event.widget.cget('text').lower()  
  
    BASE_URL = f'http://newsapi.org/v2/top-  
headlines?country=in&category={type}&apiKey=' + apiKey  
  
    self.txtarea.delete("1.0", END)  
  
    self.txtarea.insert(END, f"\n Welcome to GFG news paper\n")  
  
    self.txtarea.insert(  
        END, "-----\n")
```

**#Exception Handling**

**try:**

**#converting data into json**

```

articles = (requests.get(BASE_URL).json())['articles']
if(articles != 0):
    for i in range(len(articles)):
        self.txtarea.insert(END, f"{articles[i]['title']}\n")
        self.txtarea.insert(
            END, f"{articles[i]['description']}\n\n")
        self.txtarea.insert(END, f"{articles[i]['content']}\n\n")
        link_text = f"read more...{articles[i]['url']}\n"
        self.txtarea.insert(END, link_text, ("link",))
        self.txtarea.insert(
            END, "-----\n")
        self.txtarea.insert(
            END, "-----\n")

    else:
        self.txtarea.insert(END,
            "Sorry, no news available")

except Exception as e:
    messagebox.showerror(
        'ERROR',
        "Sorry, can't connect to the internet or some issues with the news
app :('")

```



```
#function to open link      (when we click on link we get on the exact  
website where news is present)
```

```
def open_link(self, event):
```

```
    start, end = self.txtarea.tag_prevrage("link",
```

```
        "@%d,%d" % (event.x, event.y)
```

```
    )
```

```
    url = self.txtarea.get(start, end).replace("read more...", "")
```

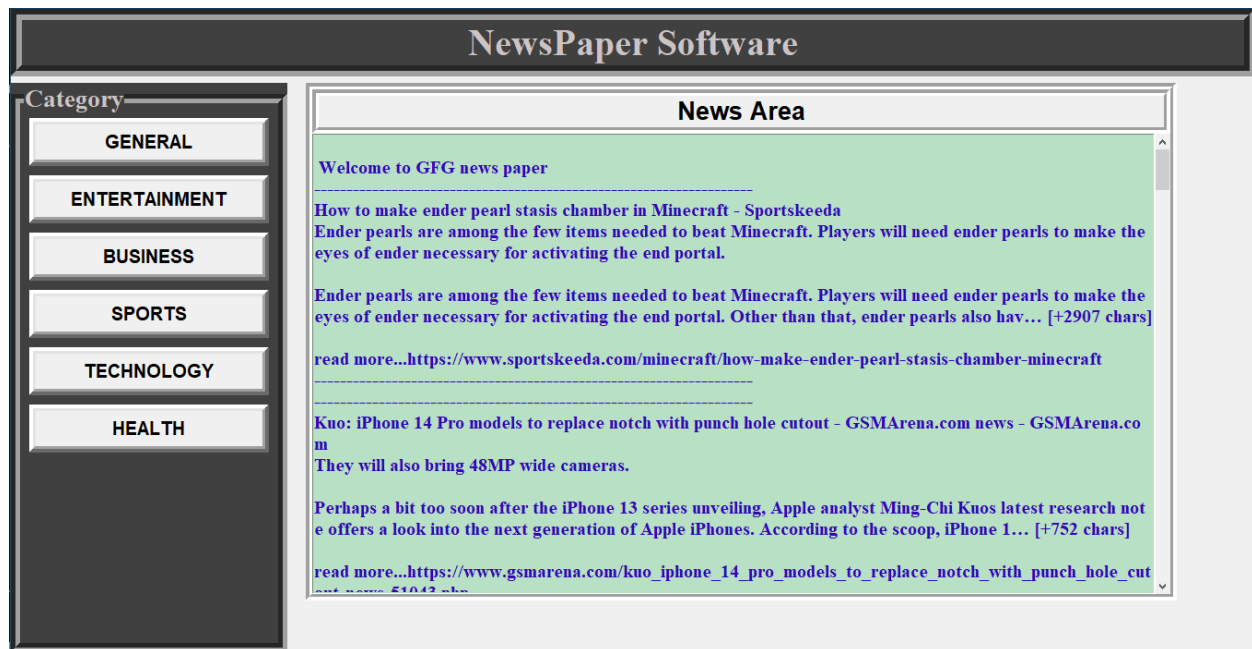
```
    webbrowser.open(url)
```

```
root = Tk()
```

```
obj = NewsApp(root)
```

```
#window main loop
```

```
root.mainloop()
```



## CONTRIBUTION OF EVERY INDIVIDUAL:

**SHAHMIR:** worked on

Api key, base user, making constructor, defining geometry, setting font colour and other display options

**Talha shah:**

Displaying categories, placing frames and all the things for user interface were designed

**Sheraz:**

**Code for Displaying and approaching news**

**Zoraiz: worked on**

**The program to source the website by using link**