SET A 1)  
import tkinter as tk

from tkinter import messagebox

def show\_alert():

messagebox.showinfo("Alert", "Button was pressed!")

root = tk.Tk()

root.title("Alert Example")

btn = tk.Button(root, text="Press Me", command=show\_alert)

btn.pack(pady=20)

root.mainloop()

2) import tkinter as tk

colors = ["red", "green", "blue", "yellow", "pink"]

index = 0

def change\_color():

global index

root.configure(bg=colors[index])

index = (index + 1) % len(colors)

root = tk.Tk()

root.title("Color Changer")

root.geometry("300x200")

btn = tk.Button(root, text="Change Color", command=change\_color)

btn.pack(pady=20)

root.mainloop()

3)

import tkinter as tk

from tkinter import font

def change\_font():

label.config(font=("Arial", 16, "bold"))

root = tk.Tk()

root.title("Font Changer")

label = tk.Label(root, text="Hello, World!")

label.pack(pady=10)

btn = tk.Button(root, text="Change Font", command=change\_font)

btn.pack()

root.mainloop()

4)  
import tkinter as tk

def modify\_text():

text.insert("1.0", "Start-")

text.insert(tk.END, "-End")

current = text.get("1.0", tk.END)

new\_text = current[1:-2] # Remove first and last character

text.delete("1.0", tk.END)

text.insert("1.0", new\_text)

root = tk.Tk()

root.title("Text Widget")

text = tk.Text(root, height=5, width=30)

text.pack()

btn = tk.Button(root, text="Modify Text", command=modify\_text)

btn.pack()

root.mainloop()  
  
5)  
import tkinter as tk

import math

def calculate():

r = float(radius\_entry.get())

h = float(height\_entry.get())

surface\_area = 2 \* math.pi \* r \* (r + h)

volume = math.pi \* r\*\*2 \* h

result\_label.config(text=f"Surface Area: {surface\_area:.2f}\nVolume: {volume:.2f}")

root = tk.Tk()

root.title("Cylinder Calculator")

tk.Label(root, text="Radius:").pack()

radius\_entry = tk.Entry(root)

radius\_entry.pack()

tk.Label(root, text="Height:").pack()

height\_entry = tk.Entry(root)

height\_entry.pack()

tk.Button(root, text="Calculate", command=calculate).pack(pady=10)

result\_label = tk.Label(root, text="")

result\_label.pack()

root.mainloop()

6)  
import tkinter as tk

def convert\_to\_upper():

text = entry.get()

result\_label.config(text=text.upper())

root = tk.Tk()

root.title("Uppercase Converter")

entry = tk.Entry(root)

entry.pack(pady=10)

btn = tk.Button(root, text="Convert", command=convert\_to\_upper)

btn.pack()

result\_label = tk.Label(root, text="")

result\_label.pack()

root.mainloop()  
  
SET B 1)  
import tkinter as tk

from datetime import datetime

def calculate\_age():

dob = entry.get()

birth\_date = datetime.strptime(dob, "%d-%m-%Y")

today = datetime.today()

age = today.year - birth\_date.year - ((today.month, today.day) < (birth\_date.month, birth\_date.day))

result.config(text=f"Your age is: {age}")

root = tk.Tk()

root.title("Age Calculator")

tk.Label(root, text="Enter DOB (dd-mm-yyyy):").pack()

entry = tk.Entry(root)

entry.pack()

tk.Button(root, text="Calculate Age", command=calculate\_age).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()  
  
2)  
import tkinter as tk

def alter\_text():

sentence = entry.get()

altered = ""

for char in sentence:

if char == " ":

altered += "\*"

elif char.isalpha():

altered += char.swapcase()

elif char.isdigit():

altered += "?"

else:

altered += char

result.config(text=altered)

root = tk.Tk()

root.title("Text Alteration")

entry = tk.Entry(root, width=40)

entry.pack()

tk.Button(root, text="Alter Text", command=alter\_text).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()  
  
3)  
import tkinter as tk

import time

def update\_time():

current = time.strftime("%H:%M:%S")

label.config(text=current)

root.after(1000, update\_time)

root = tk.Tk()

root.title("Digital Clock")

label = tk.Label(root, font=("Arial", 40))

label.pack()

update\_time()

root.mainloop()  
  
4)  
import tkinter as tk

import random

import string

def generate\_password():

chars = string.ascii\_letters

password = ''.join(random.choice(chars) for \_ in range(10))

result.config(text=f"Password: {password}")

root = tk.Tk()

root.title("Password Generator")

tk.Button(root, text="Generate Password", command=generate\_password).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()  
  
5) import tkinter as tk

digit\_words = ["Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine"]

def show\_words():

number = entry.get()

words = [digit\_words[int(d)] for d in number if d.isdigit()]

result.config(text=" ".join(words))

root = tk.Tk()

root.title("Digits to Words")

entry = tk.Entry(root)

entry.pack()

tk.Button(root, text="Convert", command=show\_words).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()

6) import tkinter as tk

def convert():

num = int(entry.get())

result.config(text=f"Binary: {bin(num)[2:]}\nOctal: {oct(num)[2:]}\nHex: {hex(num)[2:]}")

root = tk.Tk()

root.title("Number Converter")

entry = tk.Entry(root)

entry.pack()

tk.Button(root, text="Convert", command=convert).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()

7) import tkinter as tk

def add\_item():

listbox.insert(tk.END, entry.get())

def print\_item():

selected = listbox.curselection()

if selected:

result.config(text=f"Selected: {listbox.get(selected)}")

def delete\_item():

selected = listbox.curselection()

if selected:

listbox.delete(selected)

root = tk.Tk()

root.title("Listbox Example")

entry = tk.Entry(root)

entry.pack()

tk.Button(root, text="Add", command=add\_item).pack()

listbox = tk.Listbox(root)

listbox.pack()

tk.Button(root, text="Print", command=print\_item).pack()

tk.Button(root, text="Delete", command=delete\_item).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()  
  
8) import tkinter as tk

def change\_color(color):

root.config(bg=color)

root = tk.Tk()

root.title("Color Menu")

menu = tk.Menu(root)

root.config(menu=menu)

color\_menu = tk.Menu(menu)

menu.add\_cascade(label="Colors", menu=color\_menu)

for color in ["red", "green", "blue", "yellow"]:

color\_menu.add\_command(label=color, command=lambda c=color: change\_color(c))

root.mainloop()  
  
9) import tkinter as tk

def check\_number():

num = int(entry.get())

if var.get() == "Prime":

if num > 1 and all(num % i != 0 for i in range(2, num)):

result.config(text="Prime Number")

else:

result.config(text="Not Prime")

elif var.get() == "Perfect":

if sum(i for i in range(1, num) if num % i == 0) == num:

result.config(text="Perfect Number")

else:

result.config(text="Not Perfect")

elif var.get() == "Armstrong":

if sum(int(d)\*\*3 for d in str(num)) == num:

result.config(text="Armstrong Number")

else:

result.config(text="Not Armstrong")

root = tk.Tk()

root.title("Number Checker")

entry = tk.Entry(root)

entry.pack()

var = tk.StringVar(value="Prime")

tk.Radiobutton(root, text="Prime", variable=var, value="Prime").pack()

tk.Radiobutton(root, text="Perfect", variable=var, value="Perfect").pack()

tk.Radiobutton(root, text="Armstrong", variable=var, value="Armstrong").pack()

tk.Button(root, text="Check", command=check\_number).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()  
  
10) import tkinter as tk

def update\_font():

font\_name = "Arial"

font\_size = 16

weight = "bold" if bold\_var.get() else "normal"

label.config(font=(font\_name, font\_size, weight))

root = tk.Tk()

root.title("Font Style")

label = tk.Label(root, text="Styled Label")

label.pack()

bold\_var = tk.BooleanVar()

tk.Checkbutton(root, text="Bold", variable=bold\_var, command=update\_font).pack()

root.mainloop()  
  
SET C   
import tkinter as tk

def calculate():

try:

result.config(text=f"Result: {eval(entry.get())}")

except:

result.config(text="Error")

root = tk.Tk()

root.title("Simple Calculator")

entry = tk.Entry(root, width=30)

entry.pack()

tk.Button(root, text="Calculate", command=calculate).pack()

result = tk.Label(root, text="")

result.pack()

root.mainloop()