

```
# Modules: matplotlib, customtkinter  
# Font: Cartograph CF
```

Dependencies

```
import matplotlib.pyplot as plt  
import customtkinter
```

Importing libraries

```
mainy = 85  
addition = 30
```

Constants used throughout our code

```
inputScreen = customtkinter.CTk()  
inputScreen.geometry("600x"+str(mainy+addition*8))  
inputScreen.resizable(False, False)  
inputScreen.title("ProjectCaster")
```

Creating the X & Y input screens

```
title = customtkinter.CTkLabel(inputScreen, text="ProjectCaster", fg_color="transparent", font=('Cartograph CF', 35)).place(x=160, y=20)
```

```
xx = 250  
lbl = 50
```

Constants used throughout our code

```
def saveVars():  
    x = [int(x1entry.get()),int(x2entry.get()),int(x3entry.get()),int(x4entry.get()),int(x5entry.get())]  
    y = [int(y1entry.get()),int(y2entry.get()),int(y3entry.get()),int(y4entry.get()),int(y5entry.get())]  
  
    plt.plot(x, y)  
  
    plt.title('Plotted Graph')  
    plt.xlabel('x axis')  
    plt.ylabel('y axis')  
  
    plt.grid(True)  
  
    inputScreen.destroy()  
    plt.show()
```

```
firstLabel = customtkinter.CTkLabel(inputScreen, text="First X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy)
secondLabel = customtkinter.CTkLabel(inputScreen, text="Second X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition)
thirdLabel = customtkinter.CTkLabel(inputScreen, text="Third X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition*2)
fourthLabel = customtkinter.CTkLabel(inputScreen, text="Fourth X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition*3)
fifthLabel = customtkinter.CTkLabel(inputScreen, text="Fifth X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition*4)
```

Each label which says "Enter values"

```
x1entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter first X", width=150)
x1entry.place(x=xx, y=mainy)

x2entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter second X", width=150)
x2entry.place(x=xx, y=mainy+addition)

x3entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter third X", width=150)
x3entry.place(x=xx, y=mainy+addition*2)

x4entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fourth X", width=150)
x4entry.place(x=xx, y=mainy+addition*3)

x5entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fifth X", width=150)
x5entry.place(x=xx, y=mainy+addition*4)
```

Each of the entry boxes

```
y1entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter first Y", width=150)
y1entry.place(x=xx+160, y=mainy)

y2entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter second Y", width=150)
y2entry.place(x=xx+160, y=mainy+addition)

y3entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter third Y", width=150)
y3entry.place(x=xx+160, y=mainy+addition*2)

y4entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fourth Y", width=150)
y4entry.place(x=xx+160, y=mainy+addition*3)

y5entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fifth Y", width=150)
y5entry.place(x=xx+160, y=mainy+addition*4)
```

```
plotGraph = customtkinter.CTkButton(inputScreen, text="Plot the Graph", font=('Cartograph CF', 20), command=saveVars)
```

```
fourthLabel = customtkinter.CTkLabel(inputScreen, text="Fourth X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition*3)  
fifthLabel = customtkinter.CTkLabel(inputScreen, text="Fifth X and Y values: ", fg_color="transparent", font=('Cartograph CF', 15)).place(x=lbl, y=mainy+addition*4)
```

```
x1entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter first X", width=150)  
x1entry.place(x=xx, y=mainy)
```

```
x2entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter second X", width=150)  
x2entry.place(x=xx, y=mainy+addition)
```

```
x3entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter third X", width=150)  
x3entry.place(x=xx, y=mainy+addition*2)
```

```
x4entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fourth X", width=150)  
x4entry.place(x=xx, y=mainy+addition*3)
```

```
x5entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fifth X", width=150)  
x5entry.place(x=xx, y=mainy+addition*4)
```

Each of the entry boxes

```
y1entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter first Y", width=150)  
y1entry.place(x=xx+160, y=mainy)
```

```
y2entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter second Y", width=150)  
y2entry.place(x=xx+160, y=mainy+addition)
```

```
y3entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter third Y", width=150)  
y3entry.place(x=xx+160, y=mainy+addition*2)
```

```
y4entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fourth Y", width=150)  
y4entry.place(x=xx+160, y=mainy+addition*3)
```

```
y5entry = customtkinter.CTkEntry(inputScreen, placeholder_text="Enter fifth Y", width=150)  
y5entry.place(x=xx+160, y=mainy+addition*4)
```

```
plotGraph = customtkinter.CTkButton(inputScreen, text="Plot the Graph", font=('Cartograph CF', 20), command=saveVars)  
plotGraph.place(x=210, y=mainy+addition*5+20)
```

```
inputScreen.mainloop()
```

Button and mainloop which keeps the program running

```
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title = customtkinter.CTkLabel(inputScreen, text="ProjectCaster", fg_color="transparent", font=('Cartograph CF', 35)).place(x=160, y=20)
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def saveVars():
    x = [int(x1entry.get()),int(x2entry.get()),int(x3entry.get()),int(x4entry.get()),int(x5entry.get())]
    y = [int(y1entry.get()),int(y2entry.get()),int(y3entry.get()),int(y4entry.get()),int(y5entry.get())]

    plt.plot(x, y)

    plt.title('Plotted Graph')
    plt.xlabel('x axis')
    plt.ylabel('y axis')

    plt.grid(True)

    inputScreen.destroy()
    plt.show()
```

Pulling data from each of the boxes and storing in lists, creating matplotlib window, closing input screen.