

KWOC – KHARAGPUR WINTER OF CODE

A one month long program for introduction to open source community who are new to open source software development. The program helps students to get involved in open source and also prepares for many other open source programmes eg: Google Summer of Code (GSOC)

Writer's personal Github Link: <https://github.com/aditodkar>

Writer's personal Github Handle: aditodkar

User's Information:

My name is Aditya Todkar I am third year undergraduate studying Mechanical Engineering in Rajarshi Shahu College of Engineering affiliated to Savitribai Phule Pune University (SPPU)

Languages/Tools I learned:

- Python
- Matplotlib
- Tkinter
- Git

Projects I worked upon (Included in KWOC):

PLOTIT

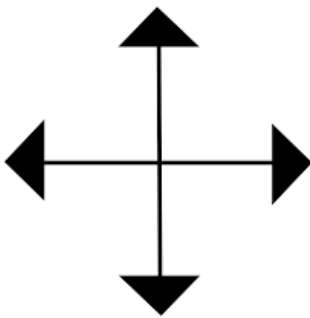
A terminal based tool to visualise mathematical functions.

Mentor : Deepjyoti Mondal (<https://github.com/djmgit>)

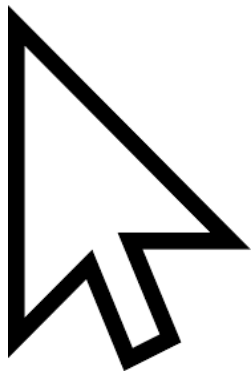
Issue1: (PR: <https://github.com/NITDgpOS/PlotIt/issues/64>)

Description: Buttons "GO", "PLOT", "DARK THEME/LIGHT THEME" on hovering cursor was Fleur changed to left_ptr

Current cursor on hovering:

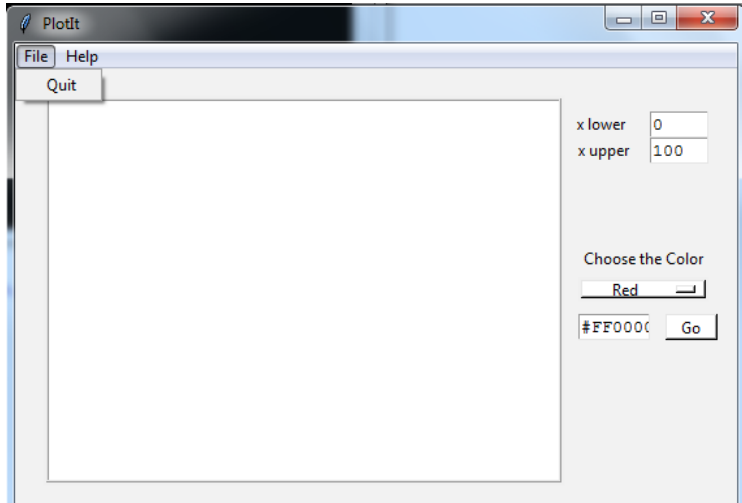


Above cursor should be changed to:



Issue 2: (PR: <https://github.com/NITDgpOS/PlotIt/pull/70>)

Description: Added Menubar (File and Help)



```
class Menubar:
    def __init__(self, master):

        menubar = Menu(root)

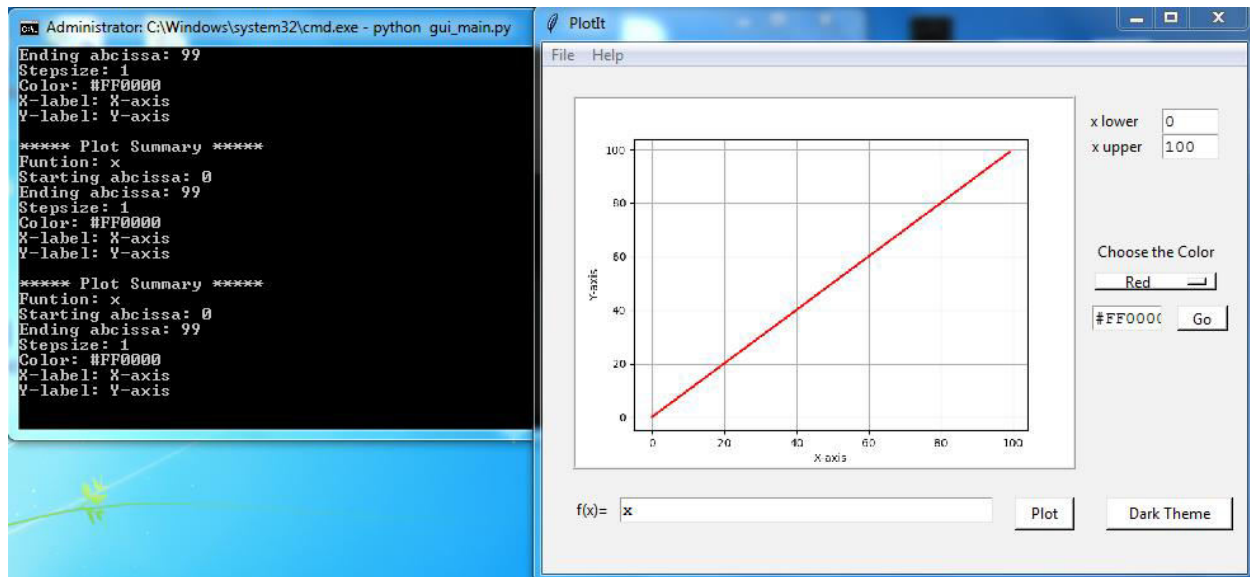
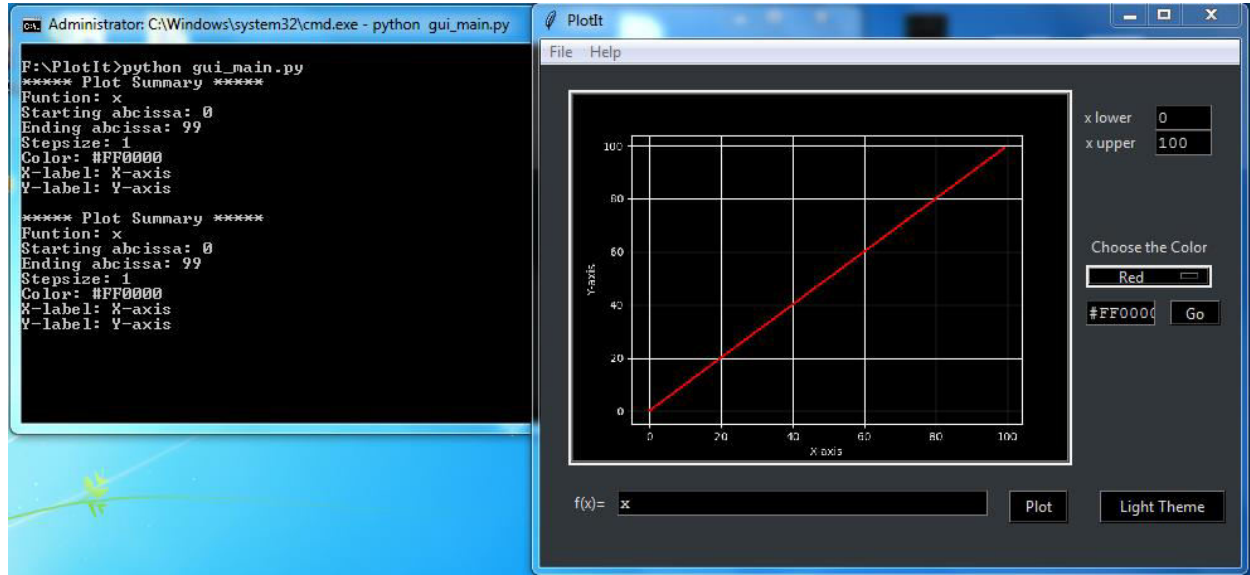
        filemenu = Menu(menubar, tearoff=0)
        menubar.add_cascade(label="File", menu=filemenu)
        filemenu.add_command(label="Quit", command=root.destroy)

        helpmenu = Menu(menubar, tearoff=0)
        menubar.add_cascade(label="Help", menu=helpmenu)

        root.config(menu=menubar)
```

Issue 3: (PR: <https://github.com/NITDgpOS/PlotIt/pull/72>)

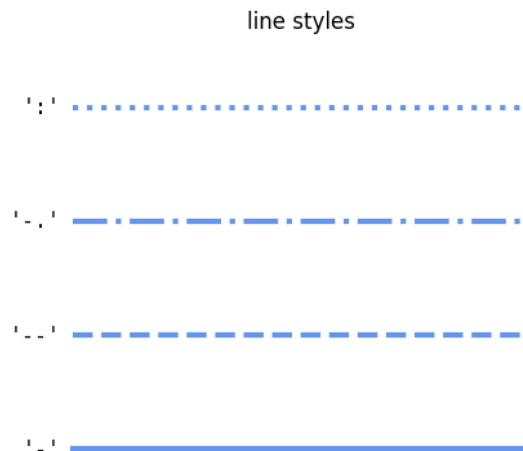
Description: GUI error in console when changing theme



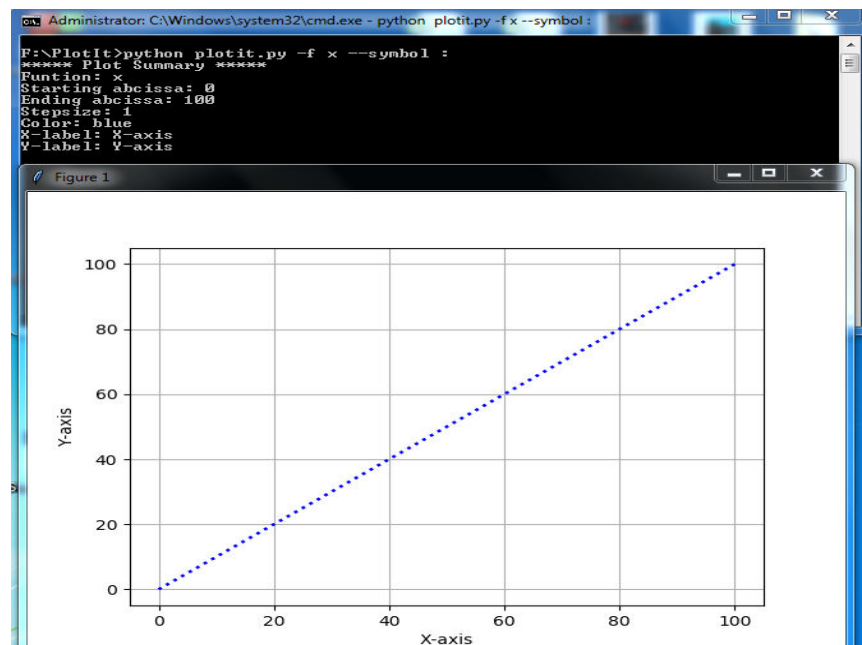
Issue 4: (PR: <https://github.com/NITDgpOS/PlotIt/pull/76>)

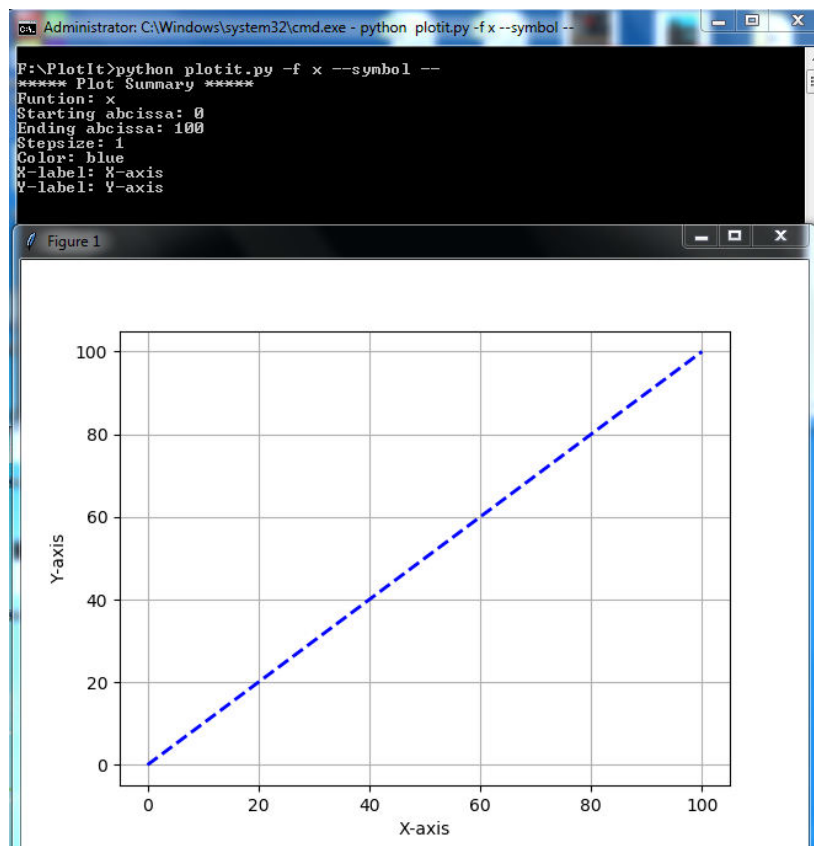
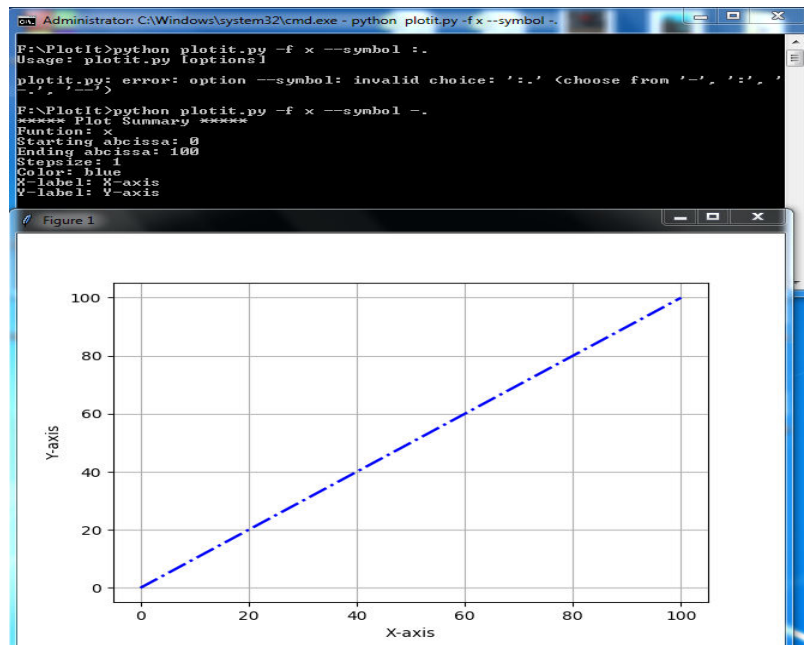
Description: CLI now supports different linestyles

Supported linestyles in matplotlib:



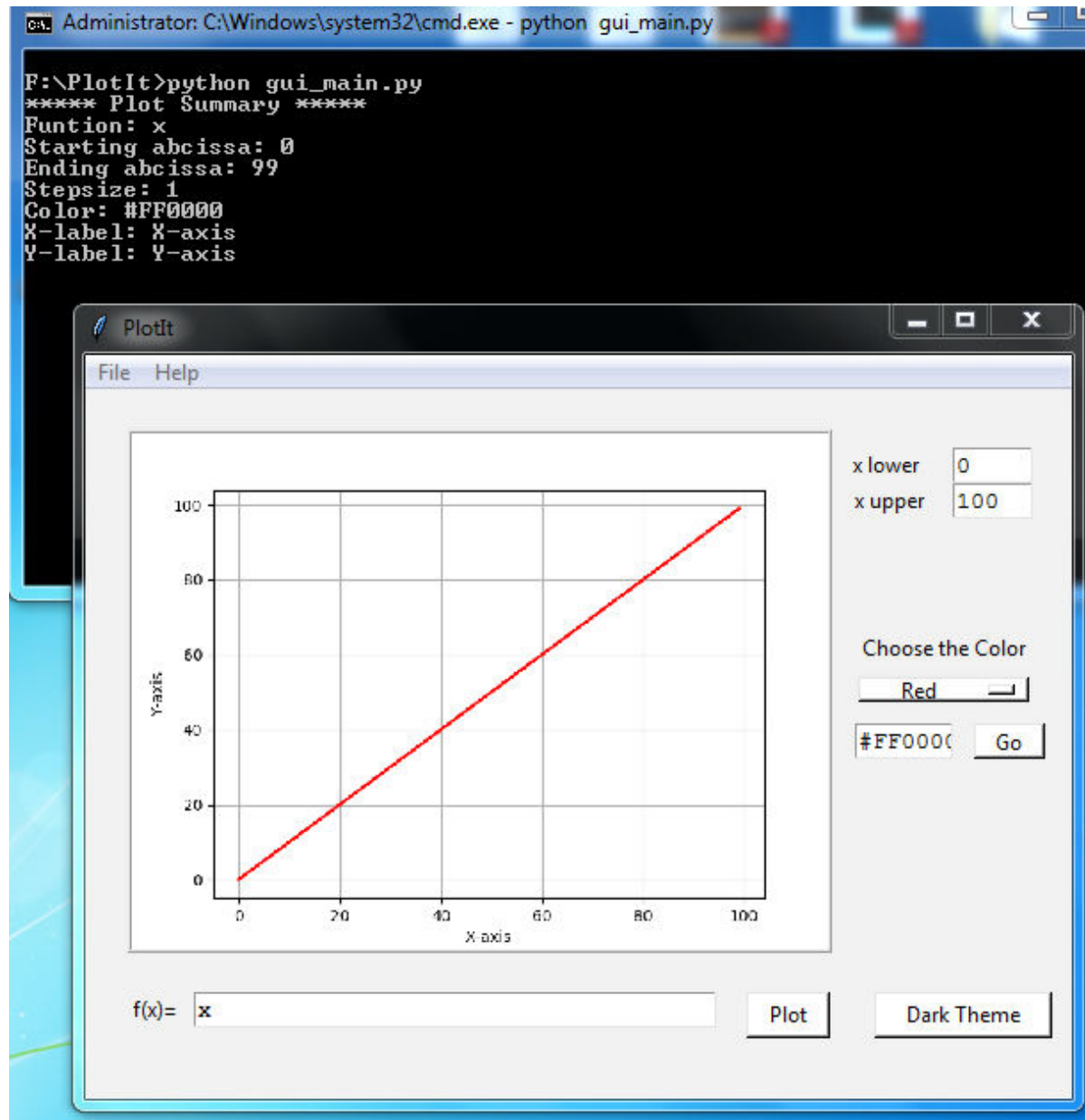
Changes I made in PLOTIT:





Issue 5: (PR: <https://github.com/NITDgpOS/PlotIt/pull/79>)

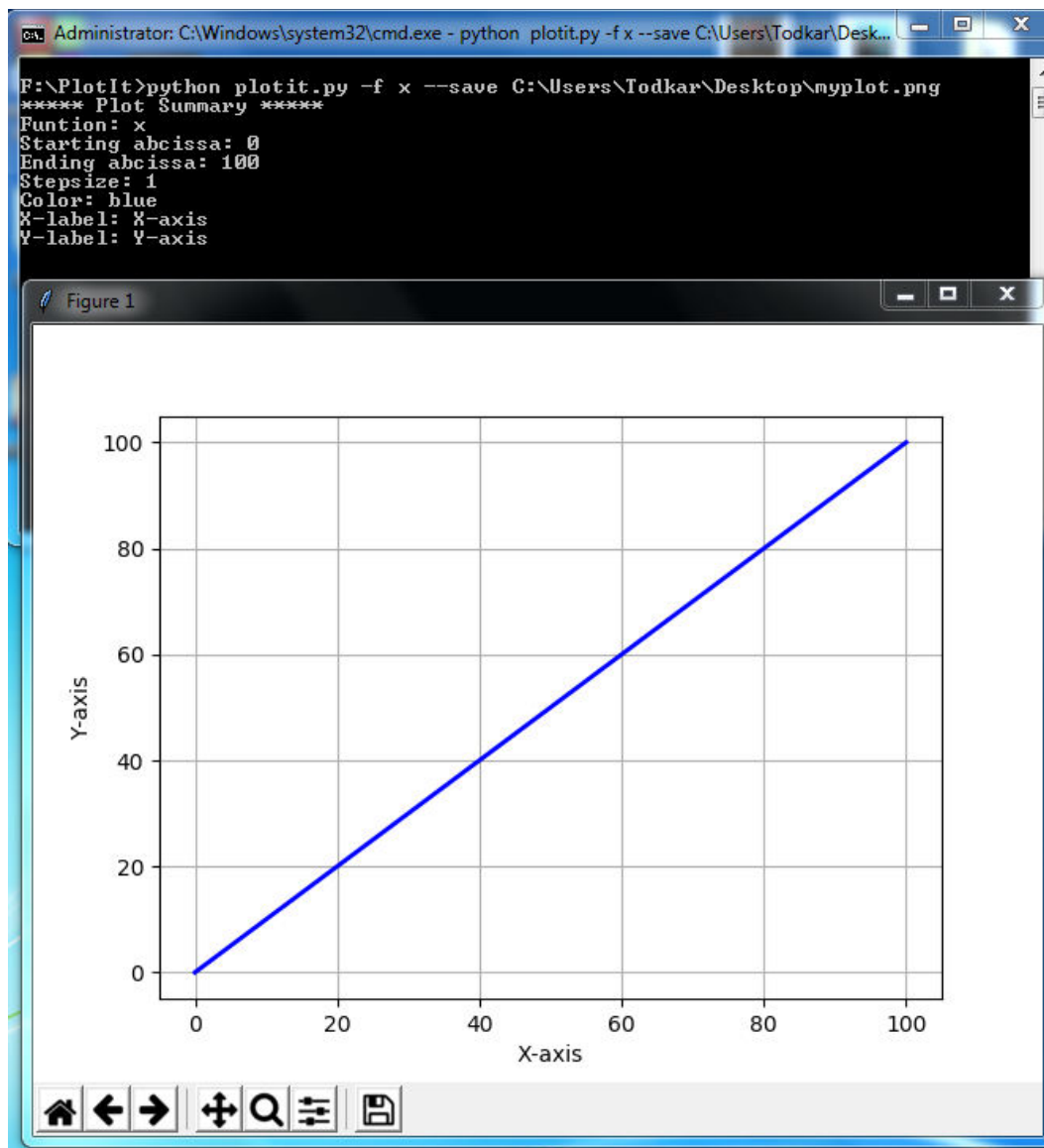
Description: GUI is able to plot function



Issue 6: (PR: <https://github.com/NITDgpOS/PlotIt/pull/80>)

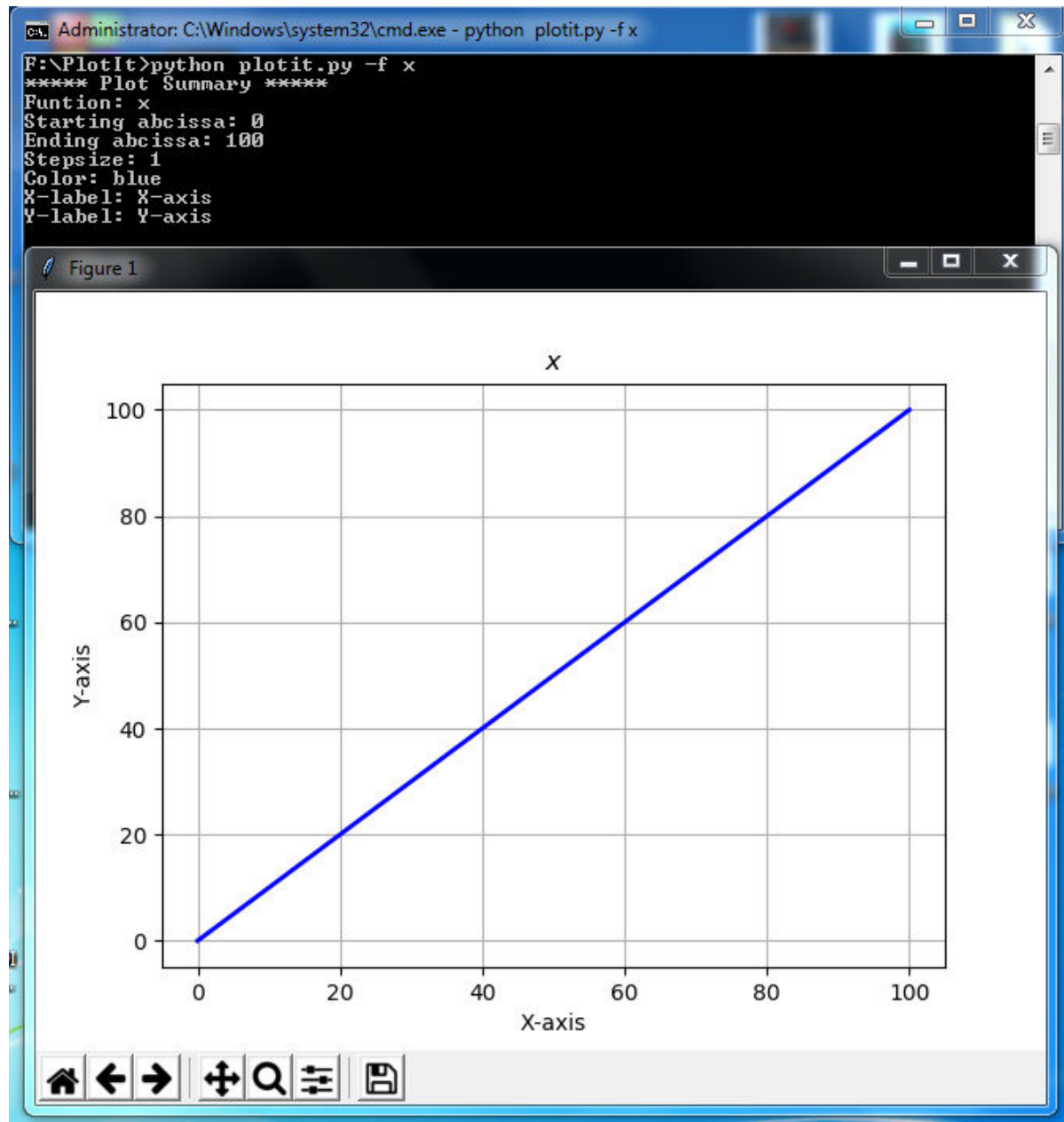
Description: Option added to save plot

When I type in CMD `python plotit.py -f x --save`
`C:\Users\Todkar\Desktop` it does not give any error everything works fine but .png file is not saved on desktop.



Issue 7: (PR: <https://github.com/NITDgpOS/PlotIt/pull/82>)

Description: Function is now displayed as title



FB Spider

A program which accepts the id of a Facebook page and transforms into a table of the latest 5 posts and the respective latest 5 comments per post. The table will be in .html format.

Mentor : Parth Verma (<https://github.com/Parth-Vader>)

Issue 1: (<https://github.com/Parth-Vader/FB-Spider/pull/46>)

UnicodeDecodeError in Windows

```
F:\KWOC FB-Spider\FB-Spider>python graph.py
Please enter the page-name:
dominospizzaindia
1      |      Domino's Pizza India
2      |      Dominospizzaindialtd
Please enter the page no. : 1
Traceback (most recent call last):
  File "graph.py", line 67, in <module>
    s=f.read()
  File "C:\Python34\lib\encodings\cp1252.py", line 23, in decode
    return codecs.charmap_decode(input,self.errors,decoding_table)[0]
UnicodeDecodeError: 'charmap' codec can't decode byte 0x8d in position 3259: character maps to <undefined>
```

In error message it tries to guess encoding used in file when we read it and finally it uses encoding cp1250 to read it (probably because Windows use cp1250 as default in system) but it is incorrect encoding because I saved it as 'utf-8'.

So you have to use `open (..., encoding='utf-8')` and it will not have to guess encoding.

```
4 graph.py

@@ -63,14 +63,14 @@

63      63      f.close()
64      64
65      65      #      replacing '&gt;' with '>' and '&lt;' with '<'
66      -      f = open('Table.html','r')
66      +      f = open('Table.html','r', encoding='utf-8')
67      67      s=f.read()
68      68      s=s.replace("&gt;",">")
69      69      s=s.replace("&lt;","<")
70      70      f.close()
71      71
72      72      #      writting content to html file
73      -      f = open('Table.html','w')
73      +      f = open('Table.html','w', encoding='utf-8')
74      74      f.write(s)
75      75      f.close()
76      76
```

My Experience with Kharagpur Winter of Code:

KWOC was a great learning experience for me, learnt new technologies and tools like python, git ,tkinter ,etc. I was totally new to git and I had never used it before but with help of my mentor Deepjyoti Mondal and his constant support made it easy for me to grasp different git commands and also learnt some good software practices. I really liked the initiative taken by IIT Kharagpur to help students get familiar with Open Source Development.

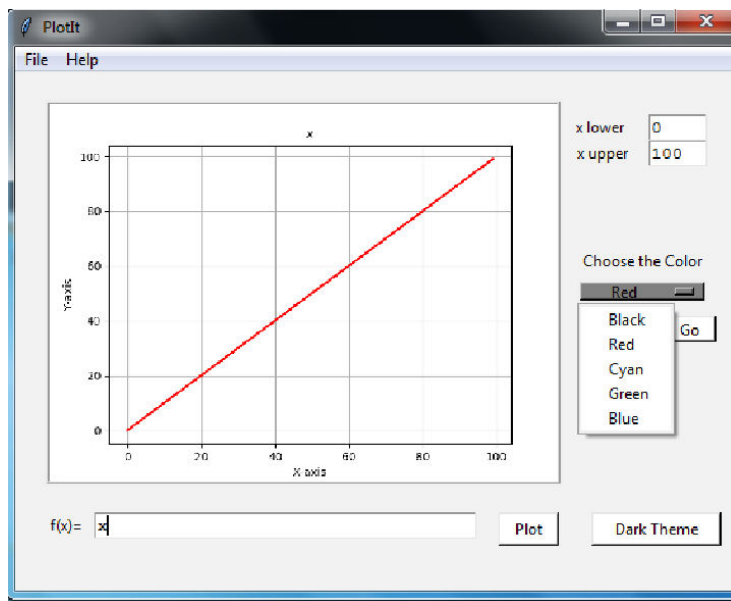
Future improvements in the PLOTIT Project:

For further improvement I have created few issues which will improve GUI version of PLOTIT.

Issue 1: (<https://github.com/NITDgpOS/PlotIt/issues/84>)

Create Drop down Menu in GUI for selecting different linestyle

Drop down Menu should be similar to that of Drop down for color change.



Issue 2: (<https://github.com/NITDgpOS/PlotIt/issues/81>)

Add SAVE button to save plot in GUI mode.

Currently the GUI mode does not have any button to SAVE plot which needs to be added.