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Module : Intelligence Artificielle II
1ST YEAR OF MASTER'S DEGREE IN
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Installation de l'environnement de travail TP-01

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TP-01*

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Chapter 1

Installation de l'environnement de travail.

1.1 Installation de Matlab 2010b ou version plus récente.

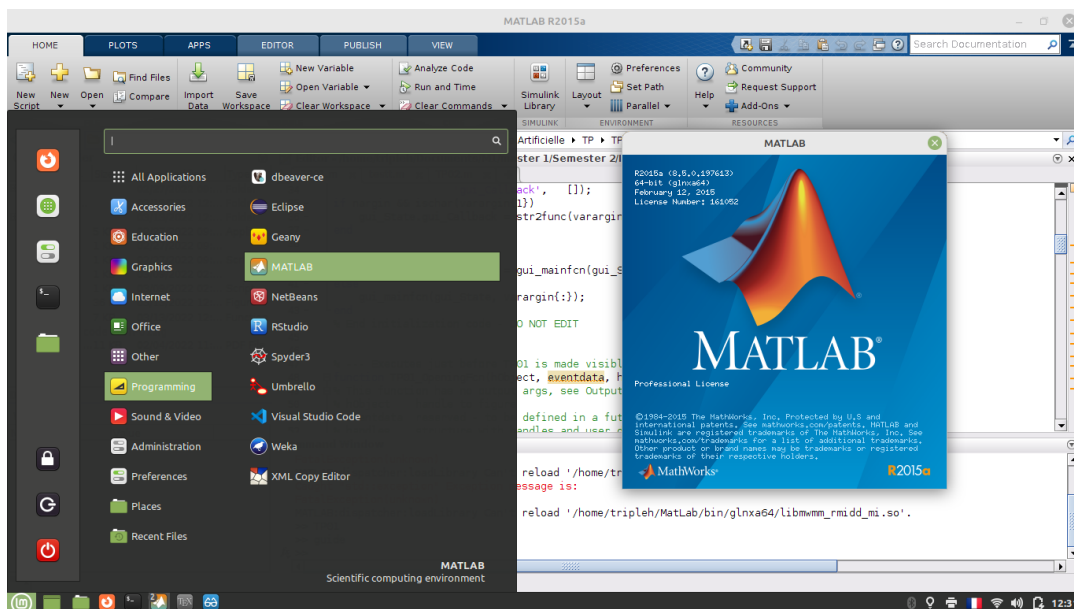


FIGURE 1.1: Matlab

- Working Environment
 - **Machine** : LENOVO IdeaPad S210, Intel Celeron 1037U, 2GB DDR3L
 - **OS** : Linux Mint 20.3 Una
 - **Kernel** : 5.4.0-100-generic x86_64 bits
 - **MATLAB** : R2015 v8.5.0.197613

Chapter 2

Exercice :

2.0.1 Sur Matlab faire l'exemple suivant :

```

1      % commentaire
2      >> x=1 ;
3      >> y=1 :20 ; % vecteur( ou tableau) de 1 a 20 avec pas de
4          1.
5      >> y=1+sqrt(x)/2 ;
6      >> plot(x,y) ;
7      >> bar(x,y) ;
      >> pie(x,y) ;

```

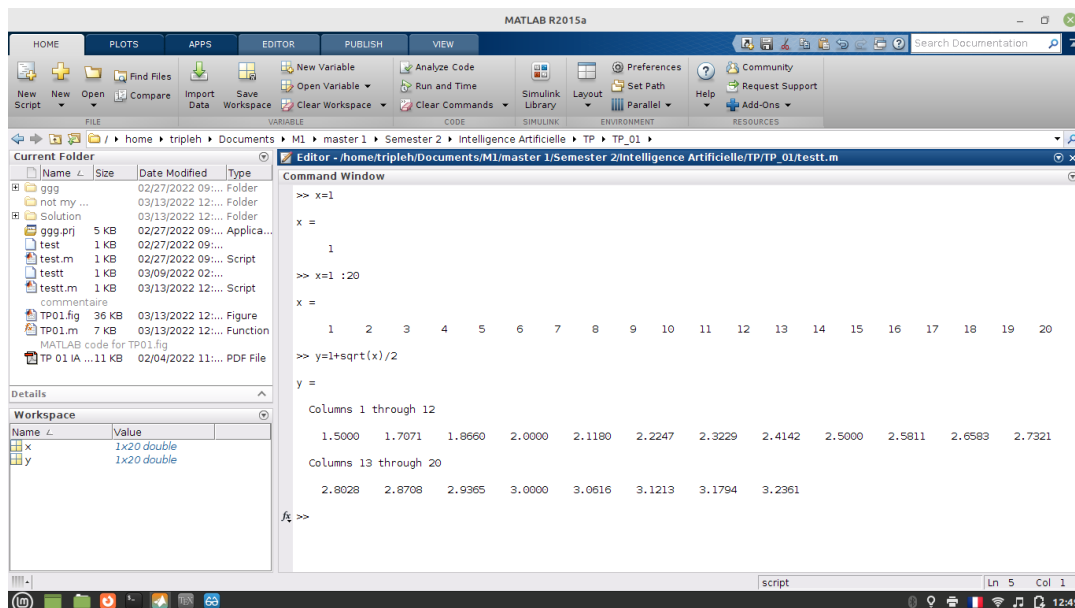


FIGURE 2.1: Matlab

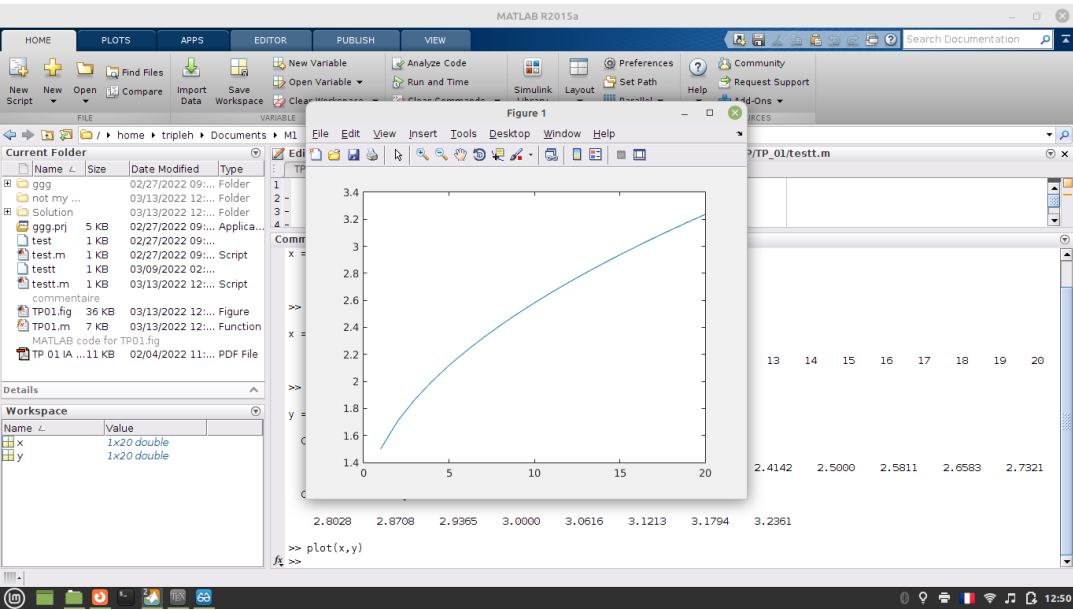


FIGURE 2.2: Plot graph

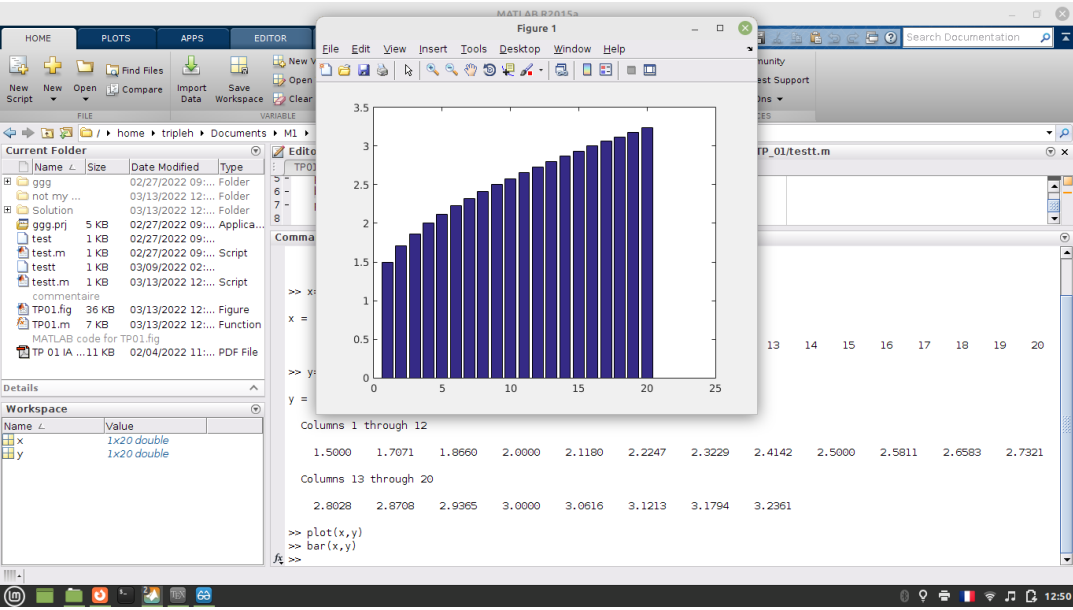


FIGURE 2.3: Bar chart

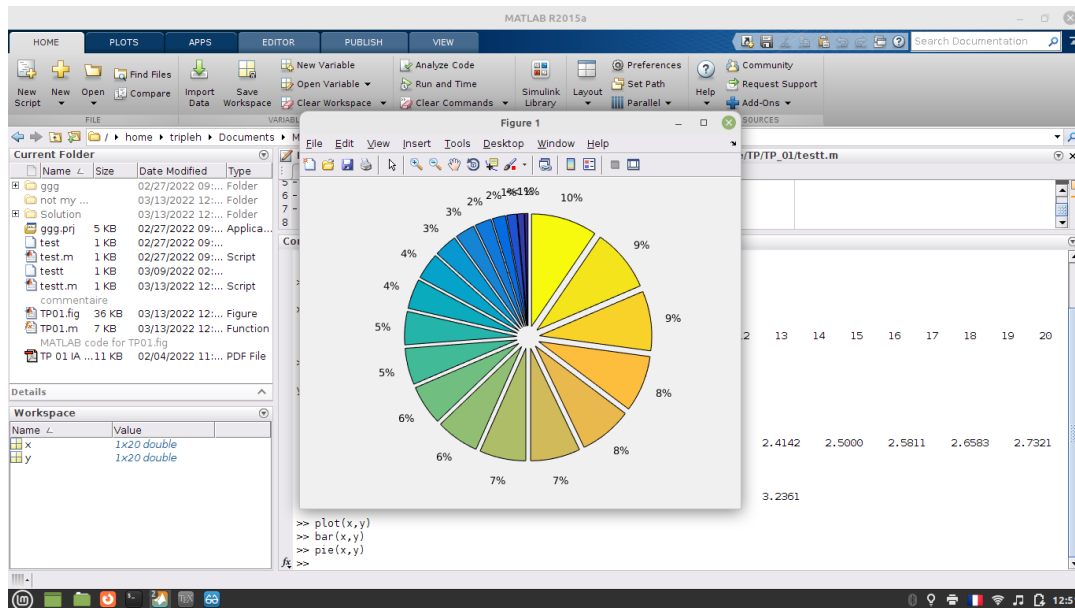


FIGURE 2.4: Pie chart

2.0.2 générer un script qui regroupe les instructions de l'exemple 1.

Creating a script named testt.m that contains the following :

```

8      prompt = ' What is the value of x? ';
9      x = input(prompt);
10     z = x : x*5;
11     y = 1+sqrt(z)/2;
12     plot(z,y);

```

after running the script we get the following :

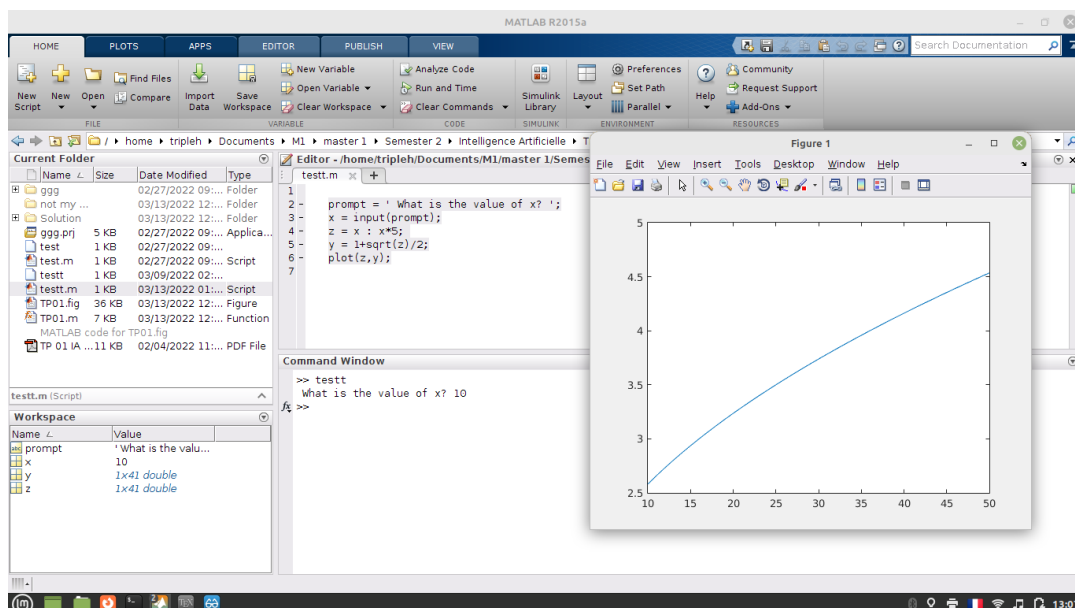


FIGURE 2.5: Input prompt

2.0.3 générer une interface graphique pour le script de la question 2, en utilisant la commande guide de matlab.

Here I have created a simple GUI with the help of guide for creating graphical interfaces in MATLAB. with 3 buttons each performs an action. the script is saved as **TP01.m** and **TP01.fig**.

Bar Chart

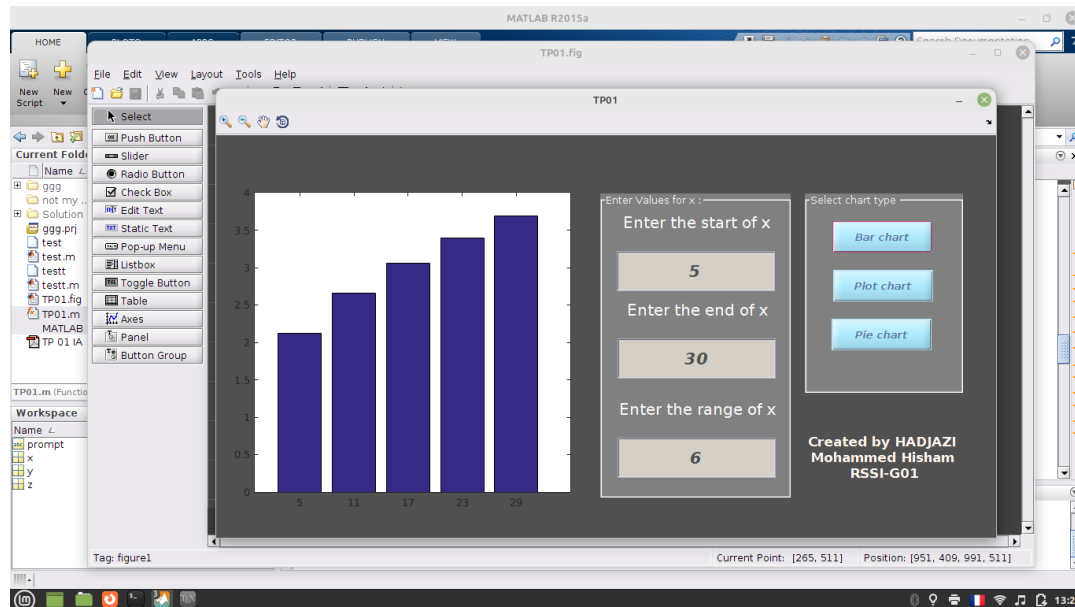


FIGURE 2.6: Bar chart GUI

```

13 function btnbar_Callback(hObject, eventdata, handles)
14     start = str2double(get(handles.input1, 'string'));
15     endd = str2double(get(handles.input2, 'string'));
16     range = str2double(get(handles.input3, 'string'));
17     x = start:range:endd;
18     y = 1 + sqrt(x)/2;
19     axes(handles DISP)
20     bar(x,y);

```

Pie Chart

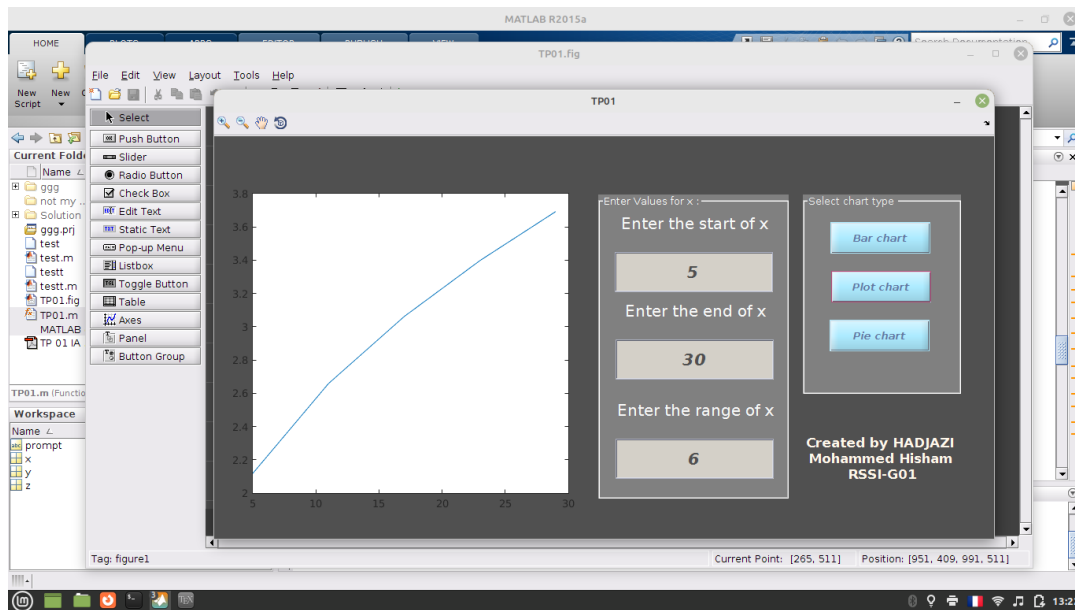


FIGURE 2.7: Pie chart GUI

```

21 function btnpie_Callback(hObject, eventdata, handles)
22 start = str2double(get(handles.input1, 'string'));
23 endd = str2double(get(handles.input2, 'string'));
24 range = str2double(get(handles.input3, 'string'));
25 x = start:range:endd;
26 y = 1 + sqrt(x)/2;
27 axes(handles DISP)
28 pie(x,y);

```


Plot Graph

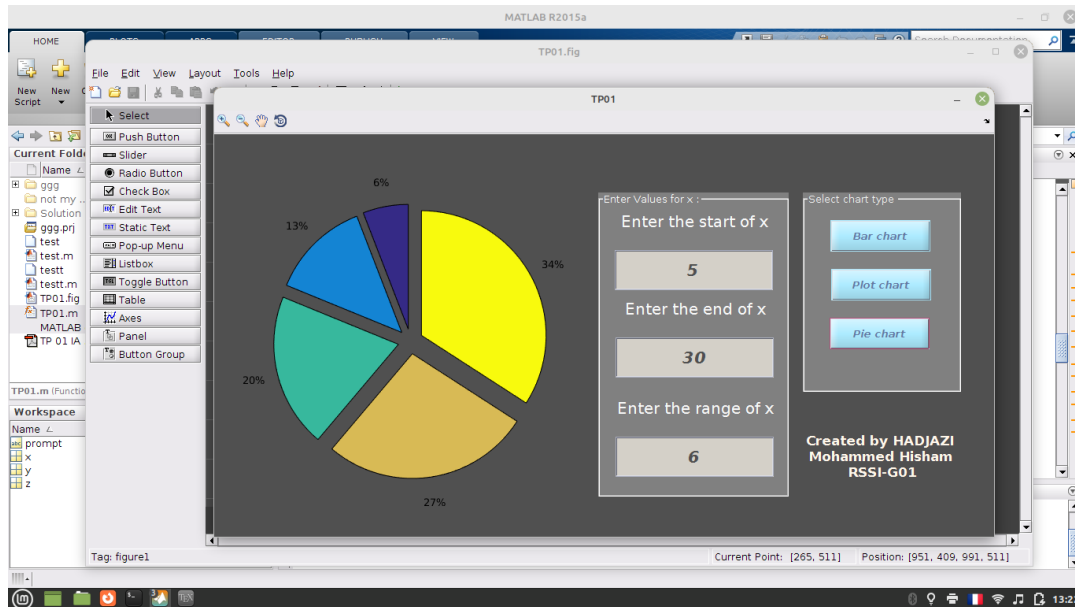


FIGURE 2.8: Plot graph GUI

```

29 function btnplot_Callback(hObject, eventdata, handles)
30 start = str2double(get(handles.input1, 'string'));
31 endd = str2double(get(handles.input2, 'string'));
32 range = str2double(get(handles.input3, 'string'));
33 x = start:range:endd;
34 y = 1 + sqrt(x)/2;
35 axes(handles.axes1)
36 plot(x, y);

```