

plotter

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@author: Marcos Tulio Fermin Lopez

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[ ]: import Data_Manager
import matplotlib.pyplot as plt
import Tables
import tables # for making the table
```

This module contains the functions that generate the plots.

```
[ ]: def plot_AWT():
    # creating the dataset
    data = Data_Manager.get_data()
    font = {'family': 'serif', # you can change the font here or
            # remove fontdict = font in lin 31,32,33 and
    ↪ it'll type in the default font!
            'color': 'black',
            'weight': 'normal',
            'size': 16,
            }
    keys = list(data.keys())
    print('Techs: ', keys)
    values = []
    for i in keys:
        val = int(data[i]['AWT']) # convert to int
        values.append(val)
    print('Average Waiting Time (AWT):', values)
    fig = plt.figure(figsize=(10, 5))

    # creating the bar plot
    plt.bar(keys, values, color='maroon', width=0.5)
    plt.xlabel("Traffic Technology", fontdict=font)
    plt.ylabel("Average Waiting Time", fontdict=font)
    plt.title("Comparison of Average Waiting Time", fontdict=font)
    plt.grid(True)
    plt.show()
```

```
[ ]: def plot_Antenna():
    # creating the dataset
```

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data = Data_Manager.get_data()
font = {'family': 'serif', # you can change the font here or
        # remove fontdict = font in lin 31,32,33 and
→it'll type in the default font!
        'color': 'black',
        'weight': 'normal',
        'size': 16,
    }
keys = list(data.keys())
print('Techs: ', keys)
values = []
EW = int(data['Antenna']['EastToWest']) # convert to int
NS = int(data['Antenna']['NorthToSouth']) # convert to int
keys = ['East-West', 'North-South']
values = [EW, NS]
print('Cars Served East-West & North-South:', values)
fig = plt.figure(figsize=(10, 5))

# creating the bar plot
plt.bar(keys, values, color='maroon', width=0.5)
plt.xlabel("Service Direction", fontdict=font)
plt.ylabel("Cars Served", fontdict=font)
plt.title("Cars Served by Antenna in East-West and North-South Direction",
→fontdict=font)
plt.grid(True)
plt.show()

```

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[ ]: def show_graph():
    # creating the dataset
    data = Data_Manager.get_data()
    font = {'family': 'serif', # you can change the font here or
            # remove fontdict = font in lin 31,32,33 and
→it'll type in the default font!
            'color': 'black',
            'weight': 'normal',
            'size': 16,
        }
    keys = list(data.keys())
    print('Techs: ', keys)
    values = []
    for i in keys:
        val = int(data[i]['carsServiced']) # convert to int
        values.append(val)
    print('Cars Serviced:', values)
    fig = plt.figure(figsize=(10, 5))

    # creating the bar plot

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```

plt.bar(keys, values, color='maroon', width=0.5)
plt.xlabel("Traffic Technology", fontdict=font)
plt.ylabel("No. of Vehicles Serviced", fontdict=font)
plt.title("Vehicles Serviced Based on Traffic Management Technology",
fontdict=font)
plt.grid(True)
plt.show()

```

```

[ ]: def plot_all(): # Plots all graphs
    show_graph()
    plot_AWT()
    plot_Antenna()
    Tables.show_AWT_Table()

```

```

[ ]: if __name__ == "__main__":
    plot_all()
    # plot_all()

```