In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
```

In [2]:
```
df=pd.read_csv(r'E:\Datasets\coin_Bitcoin.csv')
```

In [3]:
```
df
```

Out[3]:

	SNo	Name	Symbol	Date	High	Low	Open	Close	Volume	Marketcap
0	1	Bitcoin	BTC	2013-04-29 23:59:59	147.488007	134.000000	134.444000	144.539993	0.000000e+00	1.603769e+09
1	2	Bitcoin	BTC	2013-04-30 23:59:59	146.929993	134.050003	144.000000	139.000000	0.000000e+00	1.542813e+09
2	3	Bitcoin	BTC	2013-05-01 23:59:59	139.889999	107.720001	139.000000	116.989998	0.000000e+00	1.298955e+09
3	4	Bitcoin	BTC	2013-05-02 23:59:59	125.599998	92.281898	116.379997	105.209999	0.000000e+00	1.168517e+09
4	5	Bitcoin	BTC	2013-05-03 23:59:59	108.127998	79.099998	106.250000	97.750000	0.000000e+00	1.085995e+09
...	...	...	...	...	...	...	...	...	...	...
2986	2987	Bitcoin	BTC	2021-07-02 23:59:59	33939.588699	32770.680780	33549.600177	33897.048590	3.872897e+10	6.354508e+11
2987	2988	Bitcoin	BTC	2021-07-03 23:59:59	34909.259899	33402.696536	33854.421362	34668.548402	2.438396e+10	6.499397e+11
2988	2989	Bitcoin	BTC	2021-07-04 23:59:59	35937.567147	34396.477458	34665.564866	35287.779766	2.492431e+10	6.615748e+11
2989	2990	Bitcoin	BTC	2021-07-05 23:59:59	35284.344430	33213.661034	35284.344430	33746.002456	2.672155e+10	6.326962e+11
2990	2991	Bitcoin	BTC	2021-07-06 23:59:59	35038.536363	33599.916169	33723.509655	34235.193451	2.650126e+10	6.418992e+11

2991 rows × 10 columns

In [4]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2991 entries, 0 to 2990
Data columns (total 10 columns):
 #   Column     Non-Null Count  Dtype  
---  ------     --------------  -----  
 0   SNo        2991 non-null   int64  
 1   Name       2991 non-null   object 
 2   Symbol     2991 non-null   object 
 3   Date       2991 non-null   object 
 4   High       2991 non-null   float64
 5   Low        2991 non-null   float64
 6   Open       2991 non-null   float64
 7   Close      2991 non-null   float64
 8   Volume     2991 non-null   float64
 9   Marketcap  2991 non-null   float64
dtypes: float64(6), int64(1), object(3)
memory usage: 233.8+ KB
```

In [5]:
```
df['Date']=df['Date'].astype('string')
```

In [6]:
```
def func(string):
    date,time=string.split()
    return date
```

In [7]:
```
df['Date']=df['Date'].apply(func)
```

In [8]:
```
df
```

Out[8]:

	SNo	Name	Symbol	Date	High	Low	Open	Close	Volume	Marketcap
0	1	Bitcoin	BTC	2013-04-29	147.488007	134.000000	134.444000	144.539993	0.000000e+00	1.603769e+09
1	2	Bitcoin	BTC	2013-04-30	146.929993	134.050003	144.000000	139.000000	0.000000e+00	1.542813e+09
2	3	Bitcoin	BTC	2013-05-01	139.889999	107.720001	139.000000	116.989998	0.000000e+00	1.298955e+09
3	4	Bitcoin	BTC	2013-05-02	125.599998	92.281898	116.379997	105.209999	0.000000e+00	1.168517e+09
4	5	Bitcoin	BTC	2013-05-03	108.127998	79.099998	106.250000	97.750000	0.000000e+00	1.085995e+09
...	...	...	...	...	...	...	...	...	...	...
2986	2987	Bitcoin	BTC	2021-07-02	33939.588699	32770.680780	33549.600177	33897.048590	3.872897e+10	6.354508e+11
2987	2988	Bitcoin	BTC	2021-07-03	34909.259899	33402.696536	33854.421362	34668.548402	2.438396e+10	6.499397e+11
2988	2989	Bitcoin	BTC	2021-07-04	35937.567147	34396.477458	34665.564866	35287.779766	2.492431e+10	6.615748e+11
2989	2990	Bitcoin	BTC	2021-07-05	35284.344430	33213.661034	35284.344430	33746.002456	2.672155e+10	6.326962e+11
2990	2991	Bitcoin	BTC	2021-07-06	35038.536363	33599.916169	33723.509655	34235.193451	2.650126e+10	6.418992e+11

2991 rows × 10 columns

In [9]:
```
df['Date']=pd.to_datetime(df['Date'])
```

In [10]:
```
df.info()
```

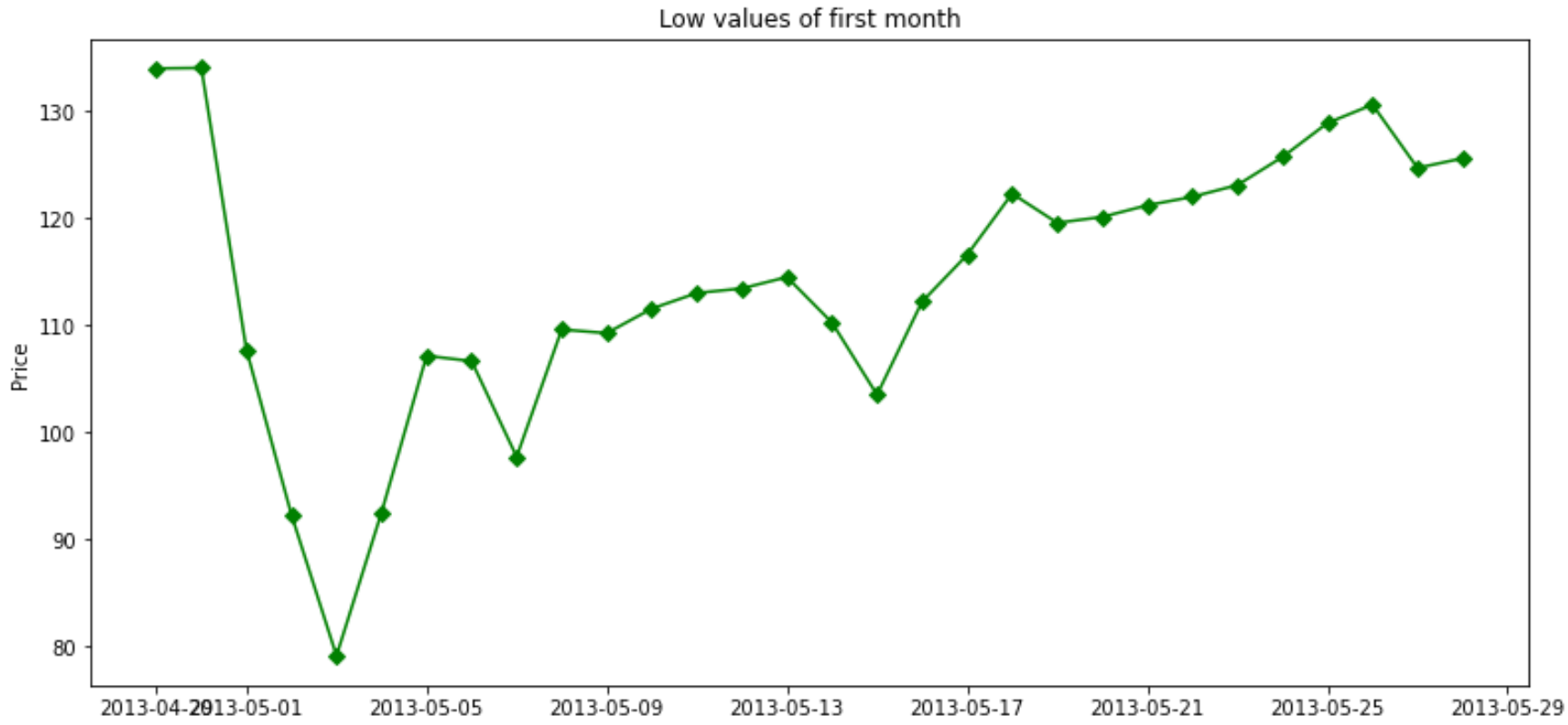
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2991 entries, 0 to 2990
Data columns (total 10 columns):
 #   Column     Non-Null Count  Dtype
---  ------     --------------  -----
 0   SNo        2991 non-null   int64
 1   Name       2991 non-null   object
 2   Symbol     2991 non-null   object
 3   Date       2991 non-null   datetime64[ns]
 4   High       2991 non-null   float64
 5   Low        2991 non-null   float64
 6   Open       2991 non-null   float64
 7   Close      2991 non-null   float64
 8   Volume     2991 non-null   float64
 9   Marketcap  2991 non-null   float64
dtypes: datetime64[ns](1), float64(6), int64(1), object(2)
memory usage: 233.8+ KB
```

In [11]:
```
df['Quantum']=df['Low'].diff()
```

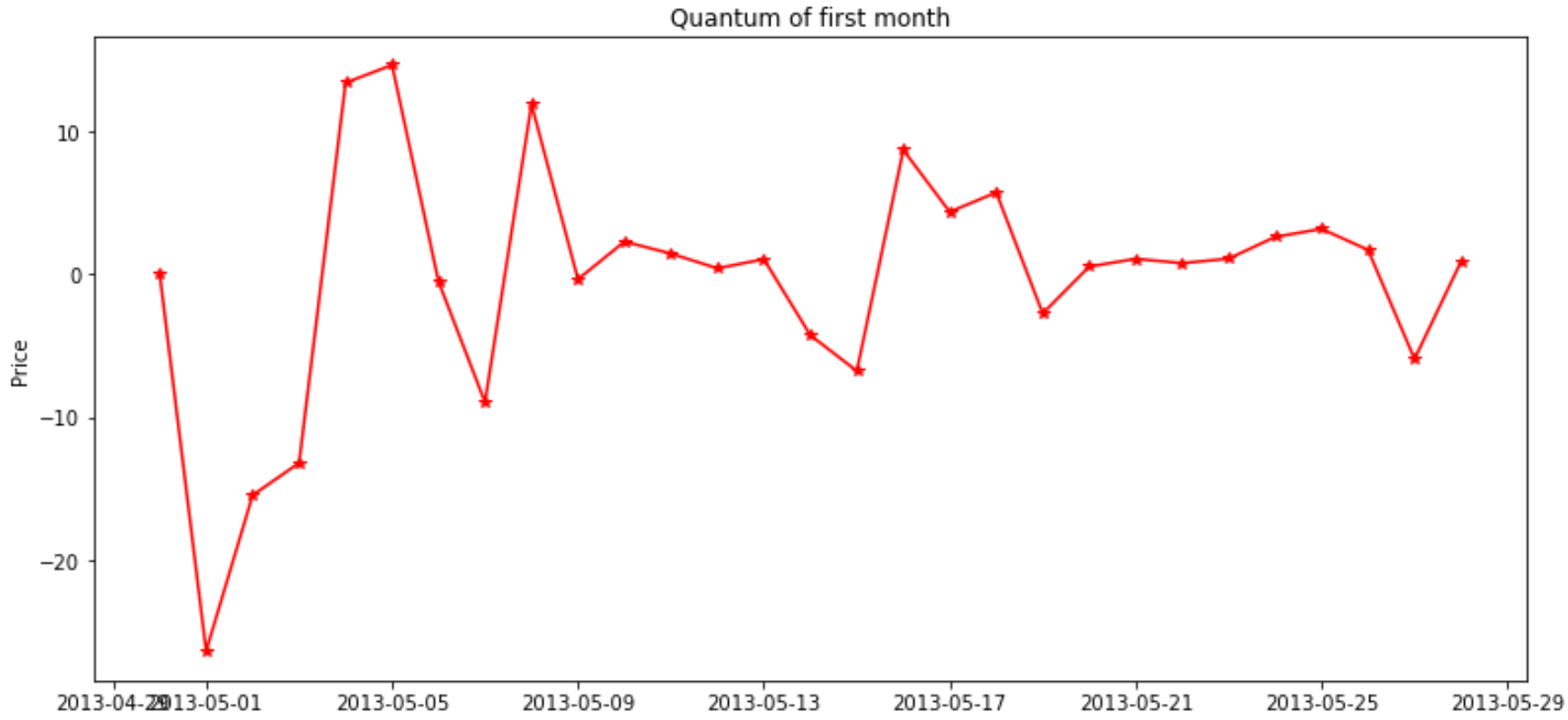
In [12]:
```
first_month_data=df[:30]
```

In [13]:
```
last_month_data=df[-30:]
```

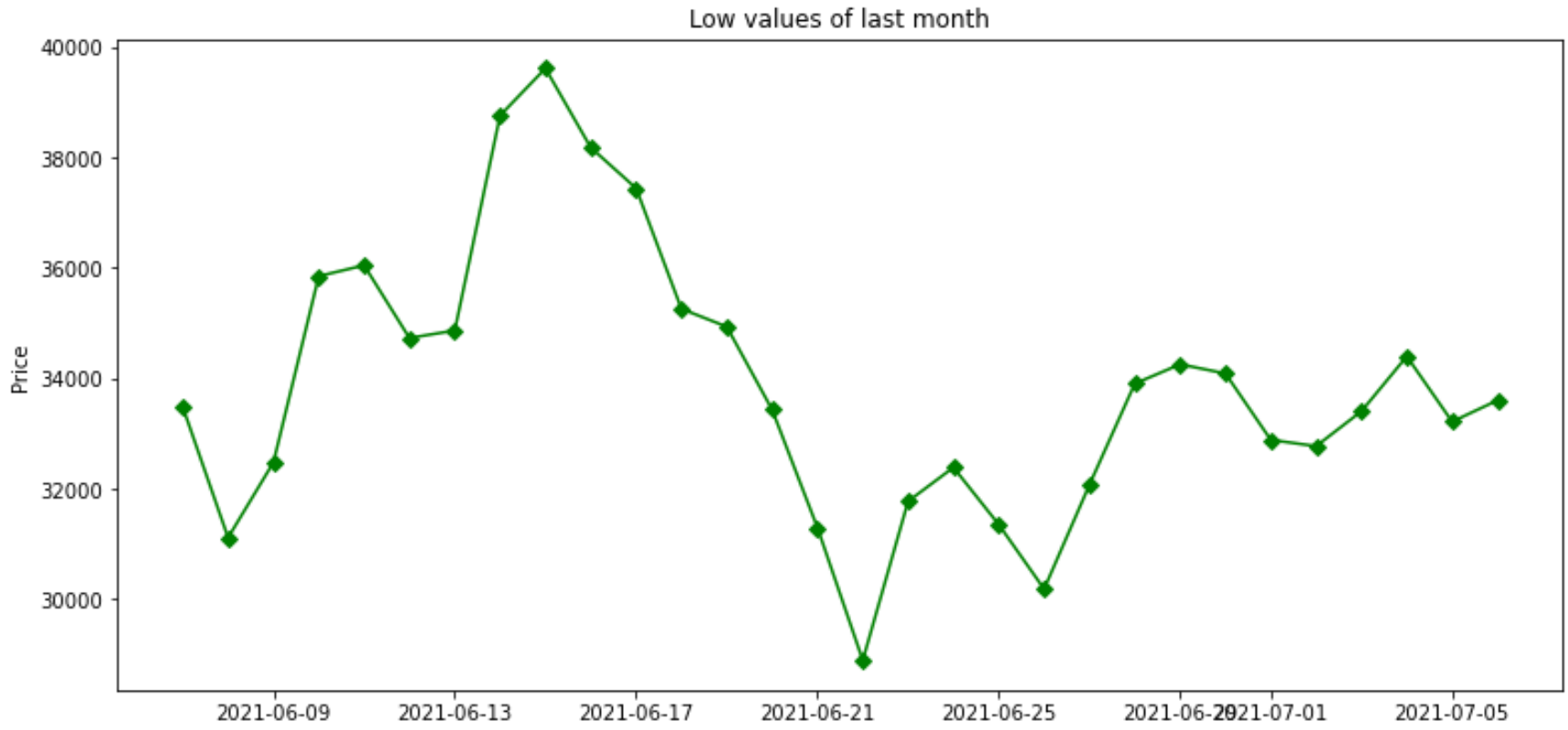
In [14]:
```
plt.figure(figsize=(13,6))
plt.plot(first_month_data['Date'],first_month_data['Low'],marker='D',color='green')
plt.title('Low values of first month')
plt.ylabel('Price')
plt.show()
```



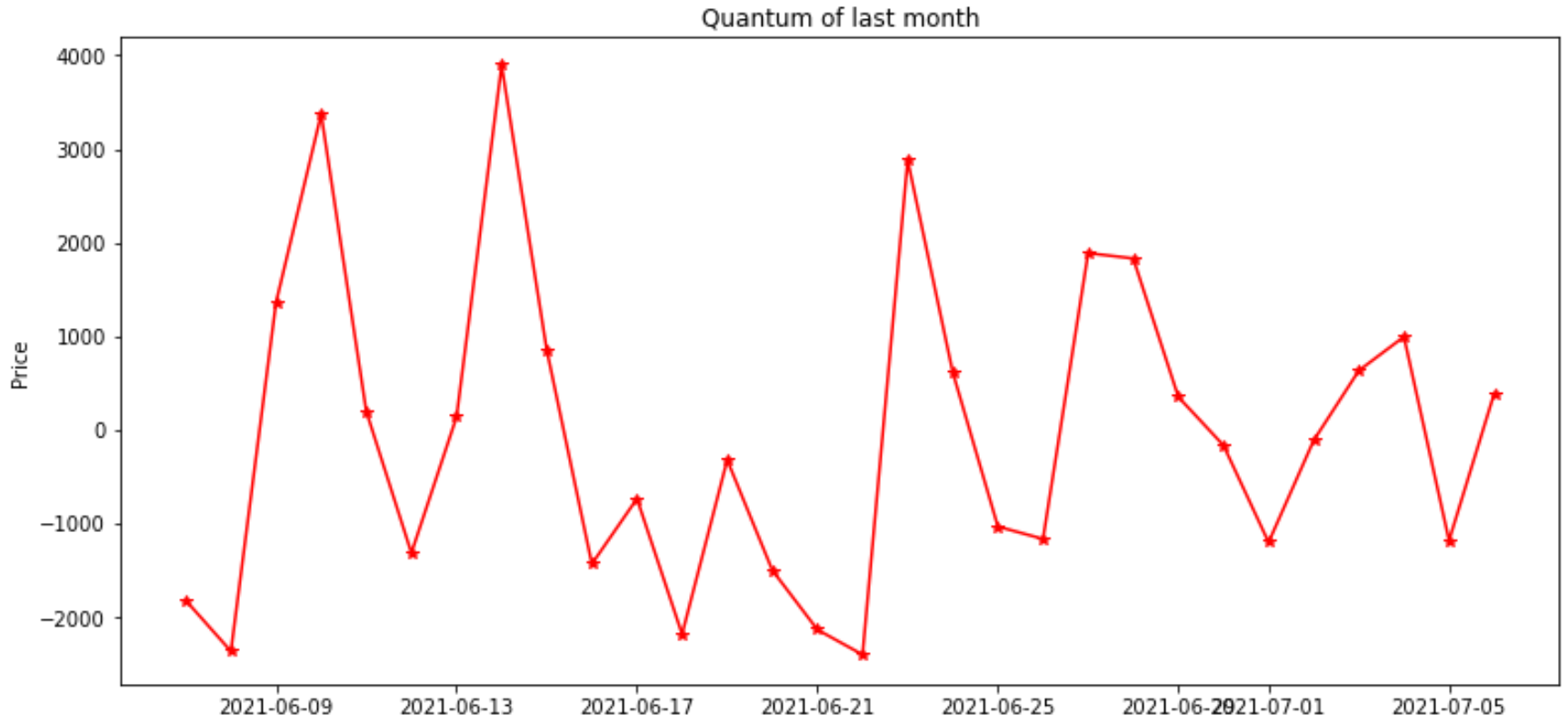
In [15]:
```
plt.figure(figsize=(13,6))
plt.plot(first_month_data['Date'],first_month_data['Quantum'],marker='*', color='red')
plt.title('Quantum of first month')
plt.ylabel('Price')
plt.show()
```



In [16]:
```
plt.figure(figsize=(13,6))
plt.plot(last_month_data['Date'],last_month_data['Low'],marker='D',color='green')
plt.title('Low values of last month')
plt.ylabel('Price')
plt.show()
```



In [17]:
```
plt.figure(figsize=(13,6))
plt.plot(last_month_data['Date'],last_month_data['Quantum'],marker='*',color='red')
plt.title('Quantum of last month')
plt.ylabel('Price')
plt.show()
```



In [ ]: