```
# -*- coding: utf-8 -*-
"""
Created on Tue May 31 22:24:50 2022
Principal amount of rupees 100 obtained from the bank and it's
interest rate is 2%. In first year total amount after 1 year is 102,
second year amount 104 and third year amount 106.
 Find the summation of total amount paid up to 46th year?
@author: Jeevi
"""
import math #importing mat library
import pandas as pd
import matplotlib.pyplot as plt
import csv
import numpy as np
principal =100# prinicipal amount
interestrate = (2/100)#interest rate
#Formula for simple intereest(p(1+rt))
startyear, endyear = 1,46
total =0
# iterating each number in list

for timeyear in range(startyear, endyear + 1):
   a=(1+interestrate*timeyear)

   totalamount=principal*a
   finalamount=math.trunc(totalamount)
   list_num = []
   list_n=[]
   list_num.insert(timeyear, finalamount)
   list_n.extend(list_num)
   print('the principal amount raised by :',timeyear ," year & total amount: ",finalamount)
```

```
print('total amount :',"{0}".format(finalamount))
print('total amount :',"{0}".format(list_n))
#102,104,106,108,110,112.....192  //Result we get
data= pd.read_csv('C:/Users/Public/acc/sic.csv')
print(data.info())
print(np.unique(data['totalamount']))
plt.hist(data, bins=7, align='right', color='purple', edgecolor='black')
plt.xlabel('total amount summation of 46 years')
plt.show()
```

```
   #To find the summation of total amount upto 46 year


   # store the inputs



principl=100
start, end = principl,finalamount
total =0
# iterating each number in list
for num in range(start, end + 1):
   # checking condition
   if (num % 2 == 0):
      total=total+end
      print('Summation of total year:',total)
      print('First year till 46 year the principal amount raised by:',num, end = " ")
      #plt.hist(end,num,color = 'green',bins = 7)


      # plt.xlabel( end)
      #plt.show()
      print("{0}".format(num))
      pro=(1+interestrate*num)
      total = principl+pro
        # To plot the graph in histogram : no of data > 30 so we go for sqrt choice


      plt.hist(finalamount, bins=7, align='right', color='purple', edgecolor='black')
      plt.show()



console output:
total amount : 140
```

```
total amount : [140]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 21  year & total amount:  142
total amount : 142
total amount : [142]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 22  year & total amount:  144
total amount : 144
total amount : [144]
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 23  year & total amount:  146
total amount : 146
total amount : [146]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 24  year & total amount:  148
total amount : 148
total amount : [148]
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 25  year & total amount:  150
total amount : 150
total amount : [150]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 26  year & total amount:  152
total amount : 152
total amount : [152]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
```

```
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 27  year & total amount:  154
total amount : 154
total amount : [154]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 28  year & total amount:  156
total amount : 156
total amount : [156]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
```

```
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 29  year & total amount:  158
total amount : 158
total amount : [158]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 30  year & total amount:  160
total amount : 160
total amount : [160]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
```

```
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 31  year & total amount:  162
total amount : 162
total amount : [162]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 32  year & total amount:  164
total amount : 164
total amount : [164]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
```

```
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 33  year & total amount:  166
total amount : 166
total amount : [166]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 34  year & total amount:  168
total amount : 168
total amount : [168]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
```

```
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 35  year & total amount:  170
total amount : 170
total amount : [170]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 36  year & total amount:  172
total amount : 172
total amount : [172]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
```

```
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 37  year & total amount:  174
total amount : 174
total amount : [174]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 38  year & total amount:  176
total amount : 176
total amount : [176]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
```

```
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 39  year & total amount:  178
total amount : 178
total amount : [178]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 40  year & total amount:  180
total amount : 180
total amount : [180]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
```

```
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 41  year & total amount:  182
total amount : 182
total amount : [182]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 42  year & total amount:  184
total amount : 184
total amount : [184]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
```

```
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 43  year & total amount:  186
total amount : 186
total amount : [186]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 44  year & total amount:  188
total amount : 188
total amount : [188]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
```

```
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 45  year & total amount:  190
total amount : 190
total amount : [190]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 46  year & total amount:  192
total amount : 192
total amount : [192]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
 #   Column       Non-Null Count  Dtype
---  ------       --------------  -----
 0   totalamount  46 non-null     int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
 174 176 178 180 182 184 186 188 190 192]
```

Summation of total year: 192

First year till 46 year the principal amount raised by: 100 100

Summation of total year: 295.0

First year till 46 year the principal amount raised by: 102 102

Summation of total year: 295.04

First year till 46 year the principal amount raised by: 104 104

Summation of total year: 295.08

First year till 46 year the principal amount raised by: 106 106

Summation of total year: 295.12

First year till 46 year the principal amount raised by: 108 108

Summation of total year: 295.15999999999997

First year till 46 year the principal amount raised by: 110 110

Summation of total year: 295.2

First year till 46 year the principal amount raised by: 112 112

Summation of total year: 295.24

First year till 46 year the principal amount raised by: 114 114

Summation of total year: 295.28

First year till 46 year the principal amount raised by: 116 116

Summation of total year: 295.32

First year till 46 year the principal amount raised by: 118 118

Summation of total year: 295.36

First year till 46 year the principal amount raised by: 120 120

Summation of total year: 295.4

First year till 46 year the principal amount raised by: 122 122

Summation of total year: 295.44

First year till 46 year the principal amount raised by: 124 124

Summation of total year: 295.48

First year till 46 year the principal amount raised by: 126 126

Summation of total year: 295.52

First year till 46 year the principal amount raised by: 128 128

Summation of total year: 295.56

First year till 46 year the principal amount raised by: 130 130

Summation of total year: 295.6

First year till 46 year the principal amount raised by: 132 132

Summation of total year: 295.64

First year till 46 year the principal amount raised by: 134 134

Summation of total year: 295.68

First year till 46 year the principal amount raised by: 136 136

Summation of total year: 295.72

First year till 46 year the principal amount raised by: 138 138

Summation of total year: 295.76

First year till 46 year the principal amount raised by: 140 140

Summation of total year: 295.8

First year till 46 year the principal amount raised by: 142 142

Summation of total year: 295.84000000000003

First year till 46 year the principal amount raised by: 144 144

Summation of total year: 295.88

First year till 46 year the principal amount raised by: 146 146

Summation of total year: 295.92

First year till 46 year the principal amount raised by: 148 148

Summation of total year: 295.96

First year till 46 year the principal amount raised by: 150 150

Summation of total year: 296.0

First year till 46 year the principal amount raised by: 152 152

Summation of total year: 296.04

First year till 46 year the principal amount raised by: 154 154

Summation of total year: 296.08

First year till 46 year the principal amount raised by: 156 156

Summation of total year: 296.12

First year till 46 year the principal amount raised by: 158 158

Summation of total year: 296.15999999999997

First year till 46 year the principal amount raised by: 160 160

Summation of total year: 296.2

First year till 46 year the principal amount raised by: 162 162

Summation of total year: 296.24

First year till 46 year the principal amount raised by: 164 164

Summation of total year: 296.28

First year till 46 year the principal amount raised by: 166 166

Summation of total year: 296.32

First year till 46 year the principal amount raised by: 168 168

Summation of total year: 296.36

First year till 46 year the principal amount raised by: 170 170

Summation of total year: 296.4

First year till 46 year the principal amount raised by: 172 172

Summation of total year: 296.44

First year till 46 year the principal amount raised by: 174 174

Summation of total year: 296.48

First year till 46 year the principal amount raised by: 176 176

Summation of total year: 296.52

First year till 46 year the principal amount raised by: 178 178

Summation of total year: 296.56

First year till 46 year the principal amount raised by: 180 180

Summation of total year: 296.6

First year till 46 year the principal amount raised by: 182 182

Summation of total year: 296.64

First year till 46 year the principal amount raised by: 184 184

Summation of total year: 296.68

First year till 46 year the principal amount raised by: 186 186

Summation of total year: 296.72

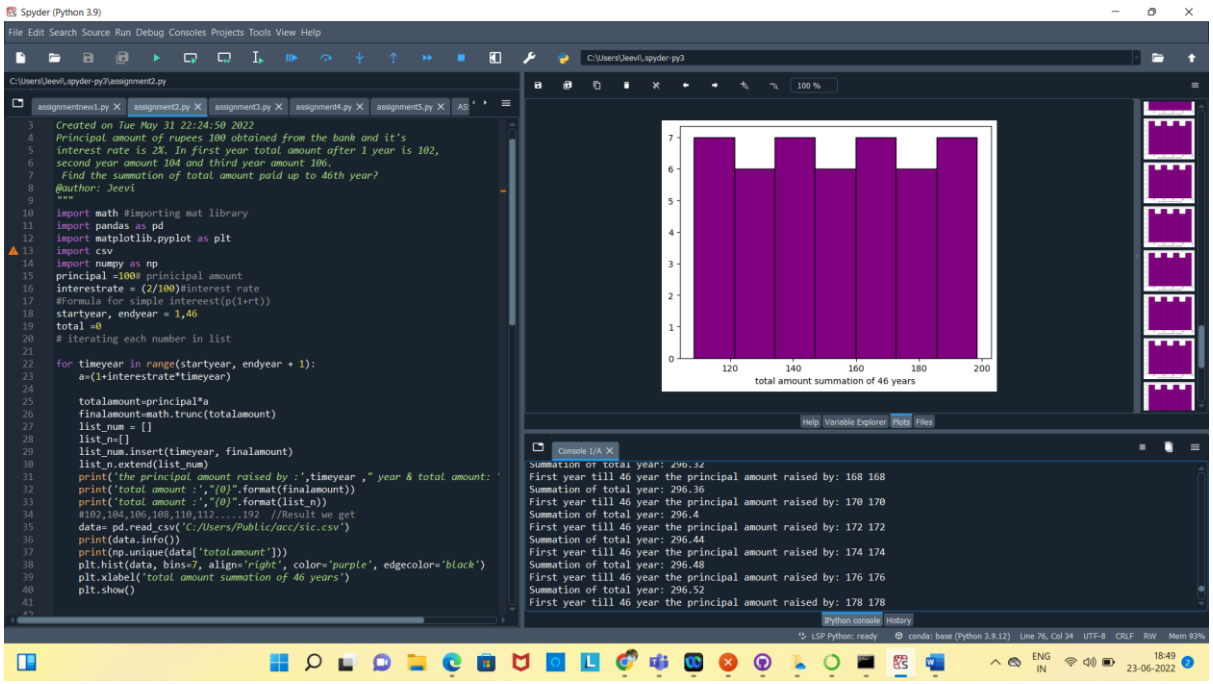
First year till 46 year the principal amount raised by: 188 188

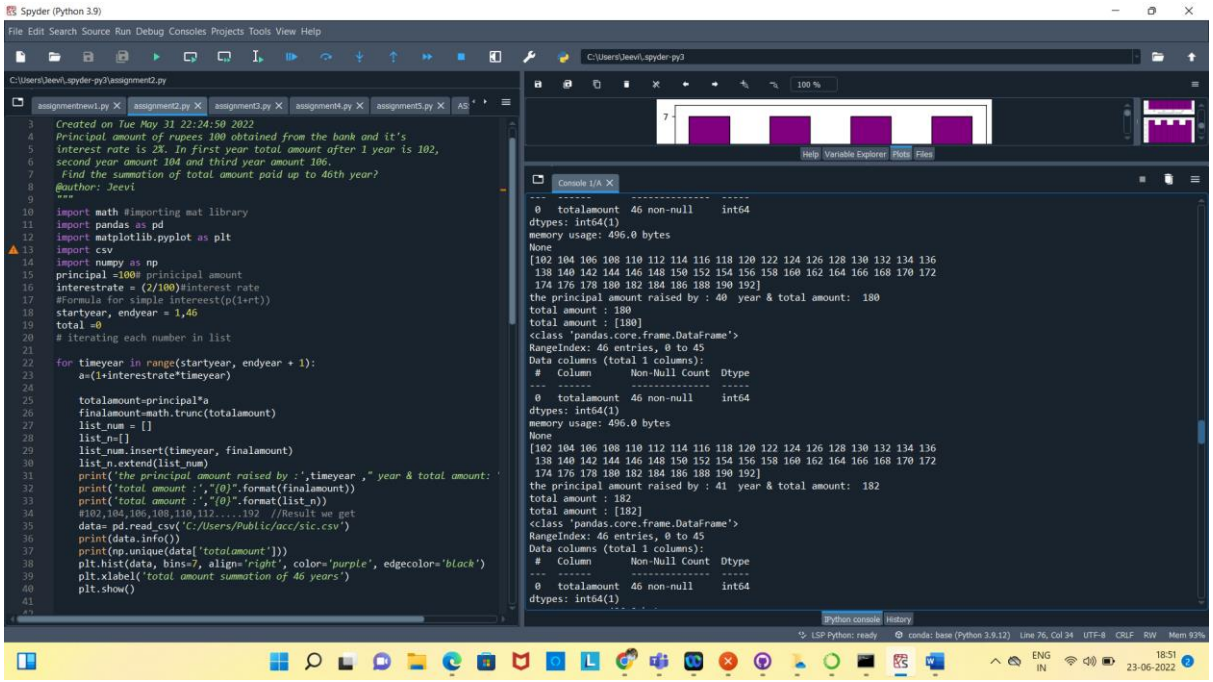
Summation of total year: 296.76

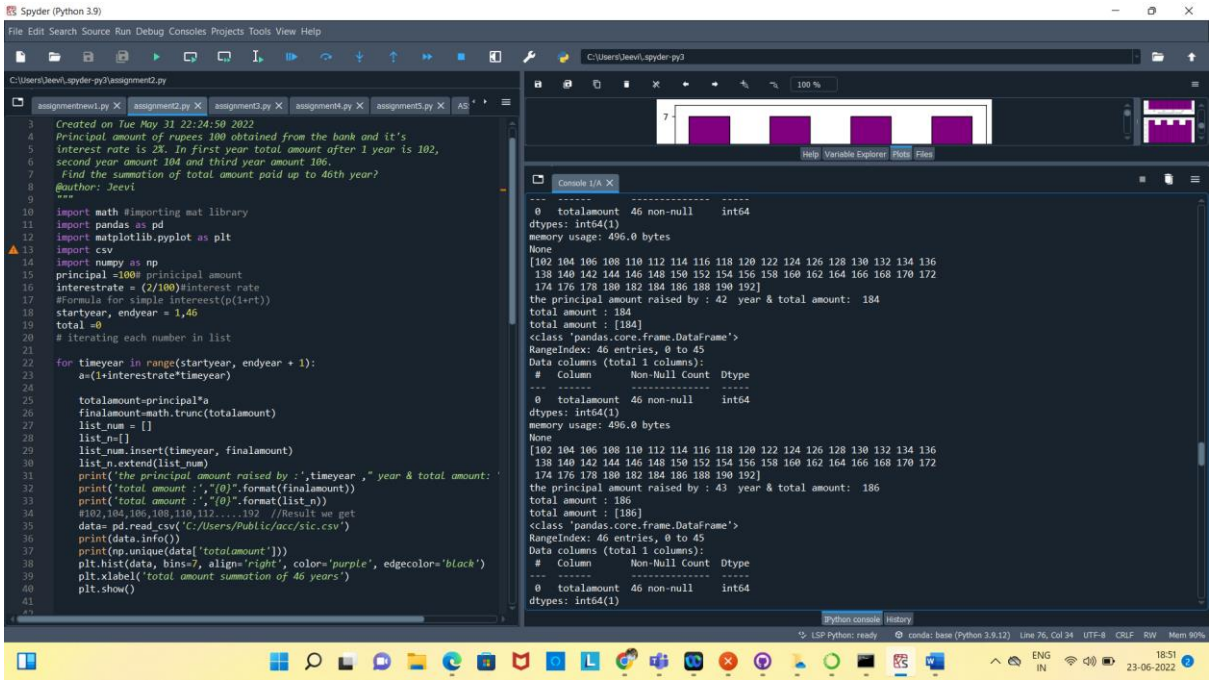
First year till 46 year the principal amount raised by: 190 190

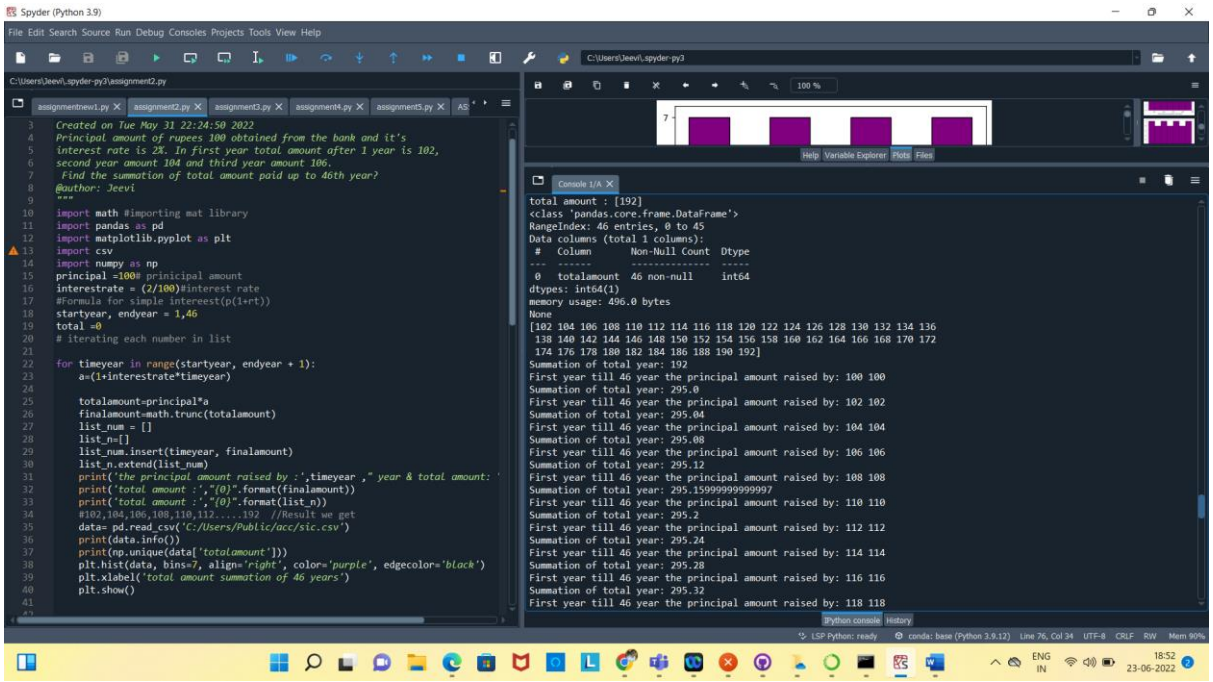
Summation of total year: 296.8

First year till 46 year the principal amount raised by: 192 192






Spyder (Python 3.9)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\Jeevi\.spyder-py3\assignment2.py
assignmentnew1.py
assignment2.py
assignment3.py
assignment4.py
assignment5.py
Created on Tue May 31 22:24:50 2022
Principal amount of rupees 100 obtained from the bank and it's
interest rate is 2%. In first year total amount after 1 year is 102,
second year amount 104 and third year amount 106.
Find the summation of total amount paid up to 46th year?
@author: Jeevi
"""
import math #importing mat library
import pandas as pd
import matplotlib.pyplot as plt
import csv
import numpy as np
principal =100# prinicipal amount
interestrate = (2/100)#interest rate
#formula for simple intereest(p(1+rt))
startyear, endyear = 1,46
total =0
# iterating each number in list
for timeyear in range(startyear, endyear + 1):
a=(1+interestrate*timeyear)
totalamount=principal*a
finalamount=math.trunc(totalamount)
list_num = []
list_n=[]
list_num.insert(timeyear, finalamount)
list_n.extend(list_num)
print('the principal amount raised by :',timeyear ," year & total amount: '
print('total amount :',"{0}".format(finalamount))
print('total amount :',"{0}".format(list_n))
#102,104,106,108,110,112.....192 //Result we get
data= pd.read_csv('C:/Users/Public/acc/sic.csv')
print(data.info())
print(np.unique(data['totalamount']))
plt.hist(data, bins=7, align='right', color='purple', edgecolor='black')
plt.xlabel('total amount summation of 46 years')
plt.show()
Console 1/A
0 totalamount 46 non-null int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 42 year & total amount: 184
total amount : 184
total amount : [184]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
Column Non-Null Count Dtype
0 totalamount 46 non-null int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
174 176 178 180 182 184 186 188 190 192]
the principal amount raised by : 43 year & total amount: 186
total amount : 186
total amount : [186]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
Column Non-Null Count Dtype
0 totalamount 46 non-null int64
dtypes: int64(1)
Help Variable Explorer Plots Files
IPython console History
LSP Python: ready
conda: base (Python 3.9.12)
Line 76, Col 34
UTF-8
CRLF
RW
Mem 90%
ENG
IN
18:51
23-06-2022


Spyder (Python 3.9)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\Jeevi\.spyder-py3\assignment2.py
assignmentnew1.py
assignment2.py
assignment3.py
assignment4.py
assignment5.py
Created on Tue May 31 22:24:50 2022
Principal amount of rupees 100 obtained from the bank and it's
interest rate is 2%. In first year total amount after 1 year is 102,
second year amount 104 and third year amount 106.
Find the summation of total amount paid up to 46th year?
@author: Jeevi
"""
import math #importing mat library
import pandas as pd
import matplotlib.pyplot as plt
import csv
import numpy as np
principal =100# prinicipal amount
interestrate = (2/100)#interest rate
#formula for simple intereest(p(1+rt))
startyear, endyear = 1,46
total =0
# iterating each number in list
for timeyear in range(startyear, endyear + 1):
a=(1+interestrate*timeyear)
totalamount=principal*a
finalamount=math.trunc(totalamount)
list_num = []
list_n=[]
list_num.insert(timeyear, finalamount)
list_n.extend(list_num)
print('the principal amount raised by :',timeyear ," year & total amount: '
print('total amount :',"{0}".format(finalamount))
print('total amount :',"{0}".format(list_n))
#102,104,106,108,110,112.....192 //Result we get
data= pd.read_csv('C:/Users/Public/acc/sic.csv')
print(data.info())
print(np.unique(data['totalamount']))
plt.hist(data, bins=7, align='right', color='purple', edgecolor='black')
plt.xlabel('total amount summation of 46 years')
plt.show()
Console 1/A
total amount : [192]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46 entries, 0 to 45
Data columns (total 1 columns):
Column Non-Null Count Dtype
0 totalamount 46 non-null int64
dtypes: int64(1)
memory usage: 496.0 bytes
None
[102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136
138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172
174 176 178 180 182 184 186 188 190 192]
Summation of total year: 192
First year till 46 year the principal amount raised by: 100 100
Summation of total year: 295.0
First year till 46 year the principal amount raised by: 102 102
Summation of total year: 295.04
First year till 46 year the principal amount raised by: 104 104
Summation of total year: 295.08
First year till 46 year the principal amount raised by: 106 106
Summation of total year: 295.12
First year till 46 year the principal amount raised by: 108 108
Summation of total year: 295.15999999999997
First year till 46 year the principal amount raised by: 110 110
Summation of total year: 295.2
First year till 46 year the principal amount raised by: 112 112
Summation of total year: 295.24
First year till 46 year the principal amount raised by: 114 114
Summation of total year: 295.28
First year till 46 year the principal amount raised by: 116 116
Summation of total year: 295.32
First year till 46 year the principal amount raised by: 118 118
Help Variable Explorer Plots Files
IPython console History
LSP Python: ready
conda: base (Python 3.9.12)
Line 76, Col 34
UTF-8
CRLF
RW
Mem 90%
ENG
IN
18:52
23-06-2022