In [1]:

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
df=pd.read_excel("xml.xlsx")
print(pd.DataFrame(df))
```

```
   student    id  math  database  software  python    gpa  total_degree  \
0     ali  5552    87        98        76      88  87.25           349
1   maged  5225    88        56        66      90  75.00           300
2    lara  5258    66        77        87      89  79.75           319
3    lily  5895    32        45        70      65  53.00           212

   status department rating
0    pass         cs     A+
1    pass         cs     B+
2    pass         cs      A
3  failed         cs      C
```

display the data for each student

In [2]:

```python
def disply():
    return print(df)
disply()
```

```
   student    id  math  database  software  python    gpa  total_degree  \
0     ali  5552    87        98        76      88  87.25           349
1   maged  5225    88        56        66      90  75.00           300
2    lara  5258    66        77        87      89  79.75           319
3    lily  5895    32        45        70      65  53.00           212

   status department rating
0    pass         cs     A+
1    pass         cs     B+
2    pass         cs      A
3  failed         cs      C
```

1-display the data for each student /specific student

In [3]:

```python
def disply_stud():

    id_stud=int(input("enter your id:".title()))
    return df.loc[df.id==id_stud,["student","id","status","department"]]
disply_stud()
```

Enter Your Id:5552

Out[3]:

	student	id	status	department
0	ali	5552	pass	cs

2-display the sources for specific student

In [4]:

```python
def disply_student_result():

    id_stud=int(input("enter your id:".title()))
    return df[df.id==id_stud]
disply_student_result()
```

Enter Your Id:5552

Out[4]:

	student	id	math	database	software	python	gpa	total_degree	status	department	r
0	ali	5552	87	98	76	88	87.25	349	pass	cs	

3-display the total grades

In [5]:

```python
def disply_total():
    id_stud=int(input("enter your id:".title()))
    return df.loc[df.id==id_stud,["student","id","total_degree"]]
disply_total()
```

Enter Your Id:5552

Out[5]:

	student	id	total_degree
0	ali	5552	349

4-graph

In [6]:

```python
def show_graph():

    id_stud=int(input("enter your id:".title()))
    r=df.loc[df.id==id_stud,["math","software","python","database"]]
    x=r.columns

    y=r.values
    y[0]
    plt.xlabel("subject", fontsize=14)
    plt.ylabel("degree(max=100)", fontsize=14)

    plt.bar(x,y[0],linewidth=5)
    return plt.show()
show_graph()
```
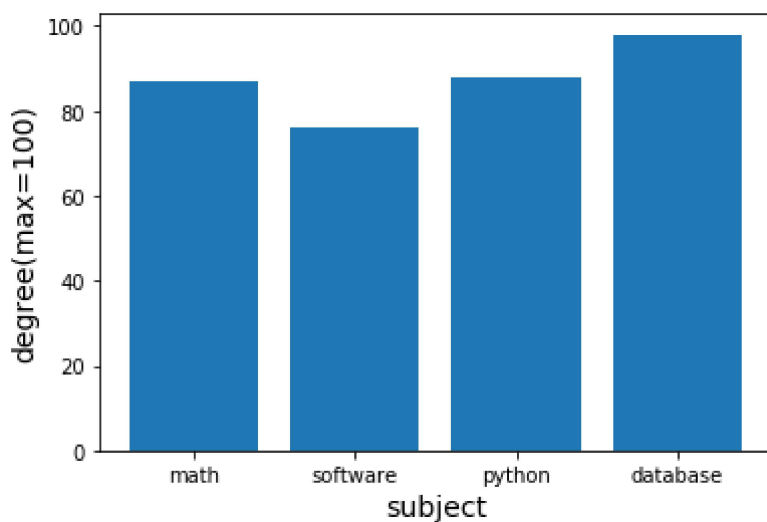
Enter Your Id:5552

5-Presentation of the outstanding and failing student

In [7]:

```python
def passed_failing():
    return df[["student","gpa","status","rating"]]
passed_failing()
```

Out[7]:

	student	gpa	status	rating
0	ali	87.25	pass	A+
1	maged	75.00	pass	B+
2	lara	79.75	pass	A
3	lily	53.00	failed	C

6-show statistics for student

In [8]:

```python
def show_statistics():
    id_stud=int(input("enter your id:".title()))
    return df.loc[df.id==id_stud,["math","software","python","database"]].describe()
show_statistics()
```

Enter Your Id:5552

Out[8]:

	math	software	python	database
count	1.0	1.0	1.0	1.0
mean	87.0	76.0	88.0	98.0
std	NaN	NaN	NaN	NaN
min	87.0	76.0	88.0	98.0
25%	87.0	76.0	88.0	98.0
50%	87.0	76.0	88.0	98.0
75%	87.0	76.0	88.0	98.0
max	87.0	76.0	88.0	98.0

7-Search for a subject degree

In [9]:

```python
def search():
    id_stud=int(input("enter your id:".title()))
    sub_name =str(input("inter name of subject: "))
    return df.loc[df.id==id_stud,[sub_name]]
search()
```

Enter Your Id:5552
inter name of subject: math

Out[9]:

	math
0	87

8-Deleting a subject's grade for a student

In [10]:

```python
def Deleting():

    id_stud=int(input("enter your id:".title()))
    sub_name =str(input("inter name of subject: "))
    st1=df.loc[df.id==id_stud]
    st1.loc[0,[sub_name]]=0
    return st1
Deleting()
```

Enter Your Id:5552
inter name of subject: database

C:\Users\DELL\anaconda31\lib\site-packages\pandas\core\indexing.py:965: Sett
ingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user_guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
  self.obj[item] = s

Out[10]:

	student	id	math	database	software	python	gpa	total_degree	status	department	r
0	ali	5552	87	0	76	88	87.25	349	pass	cs	

9-split main file into two equal files

In [11]:

```python
def split():
    split1=df[:2].to_excel("first_file.xlsx")
    split2=df[2:].to_excel("secound_file.xlsx")
    return split1,split2
```

In [12]:

```python
def main_menu():
    print("####### welcome #######")
    print("for display the data for each student press 1")
    print("for display the data for each student /specific student press 2 ")
    print("for display the sources for specific student press 3")
    print("for display the total grades 4")
    print("for graph press 5")
    print("for Presentation of the outstanding and failing student press 6")
    print("for show statistics for student press 7")
    print("for Search for a subject degree 8")
    print("for Deleting a subject's grade for a student press 9")
    print("for split main file into two equal files 10")
```

In [15]:

```python
main_menu()
option=input(str("inter yor option here:"))
while (option !="10"):
    if option =="1":
        print(disply())
        break
    elif option=="2":
        print(disply_stud())
        break
    elif option =="3":
        print(disply_student_result())
        break
    elif option=="4":
        print(disply_total())
        break
    elif option=="5":
        print(show_graph())
        break
    elif option=="6":
        print(passed_failing())
        break
    elif option=="7":
        show_statistics()
        break
        continue
    elif option=="8":
        search()
        break
    elif option=="9":
        split()
        break
    else :
        print("invalid option")
        mainMenu()
        option =input ('enter option from the below options :')
print ('goodby')
```

```
####### welcome #######
for display the data for each student press 1
for display the data for each student /specific student press 2
for display the sources for specific student press 3
for display the total grades 4
for graph press 5
for Presentation of the outstanding and failing student press 6
for show statistics for student press 7
for Search for a subject degree 8
for Deleting a subject's grade for a student press 9
for split main file into two equal files 10
inter yor option here:2
Enter Your Id:5552
   student    id status department
0    ali   5552   pass         cs
goodby
```

In [ ]: