



DATABASE SYSTEM LABS

– ADVANCED SQL: PROCEDURE & FIGURE

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OBJECTIVES

- PROCEDURE
- Drawing Figure In Python
- A Lab

PROCEDURE EXAMPLE

EXAMPLE: MYSQL PROCEDURE

```
DROP PROCEDURE IF EXISTS sp_proc_instructor;
```

```
DELIMITER ;;
```

```
CREATE PROCEDURE sp_proc_instructor(IN deptName varchar(20), OUT cnt int)
```

```
BEGIN
```

```
    IF deptName is null THEN
```

```
        select count(*) into cnt  from instructor;
```

```
    ELSE
```

```
        select count(*) into cnt  from instructor where dept_name=deptName;
```

```
    END IF;
```

```
    /* select * from instructor where dept_name=deptName; */
```

```
END;;
```

```
DELIMITER ;
```


EXAMPLE: MYSQL PROCEDURE

```
set @deptName='Comp. Sci.';  
call sp_proc_instructor(@deptName,@mycnt);  
select @mycnt as cnt;
```

Drawing Figure In Python

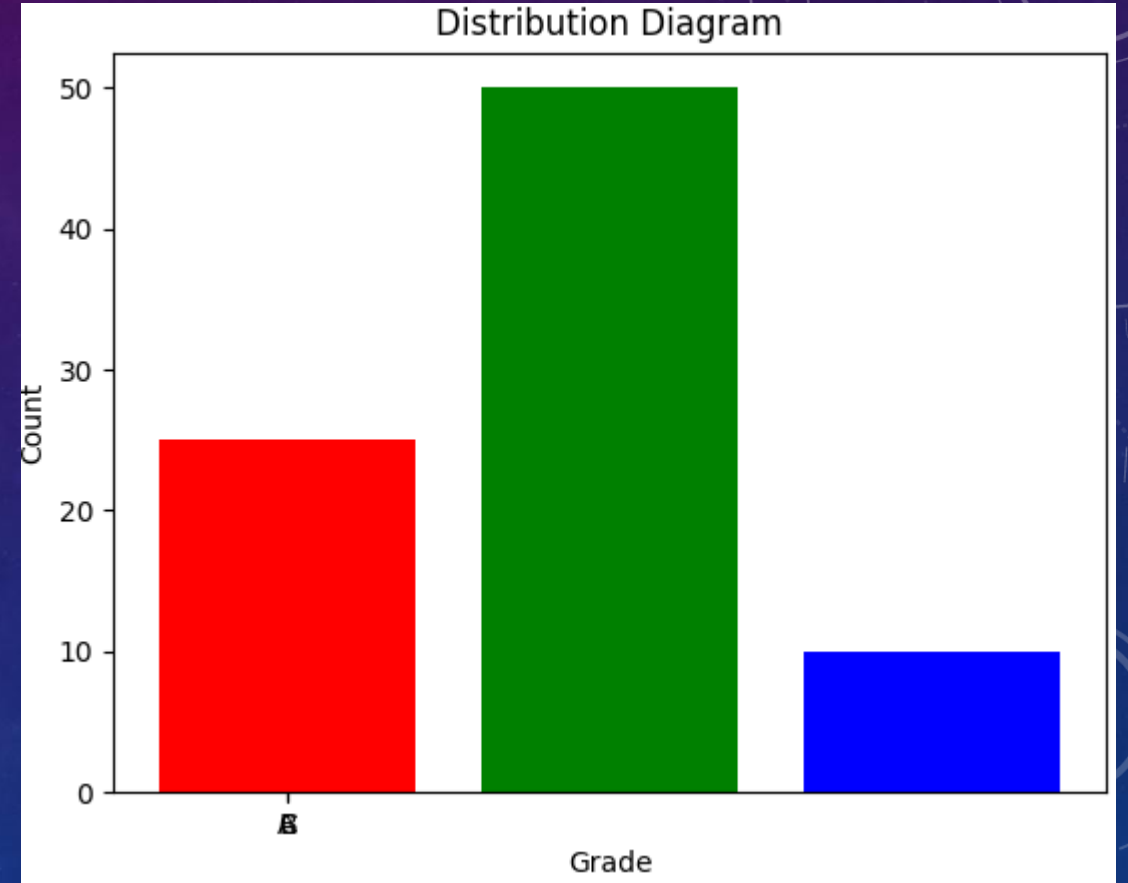
DRAWING FIGURE IN PYTHON

- (in ubuntu)
 `sudo apt-get install python3-tk`
- `pip3 install numpy`
- `pip3 install tkinter`
- `pip3 install matplotlib`

DRAWING FIGURE IN PYTHON

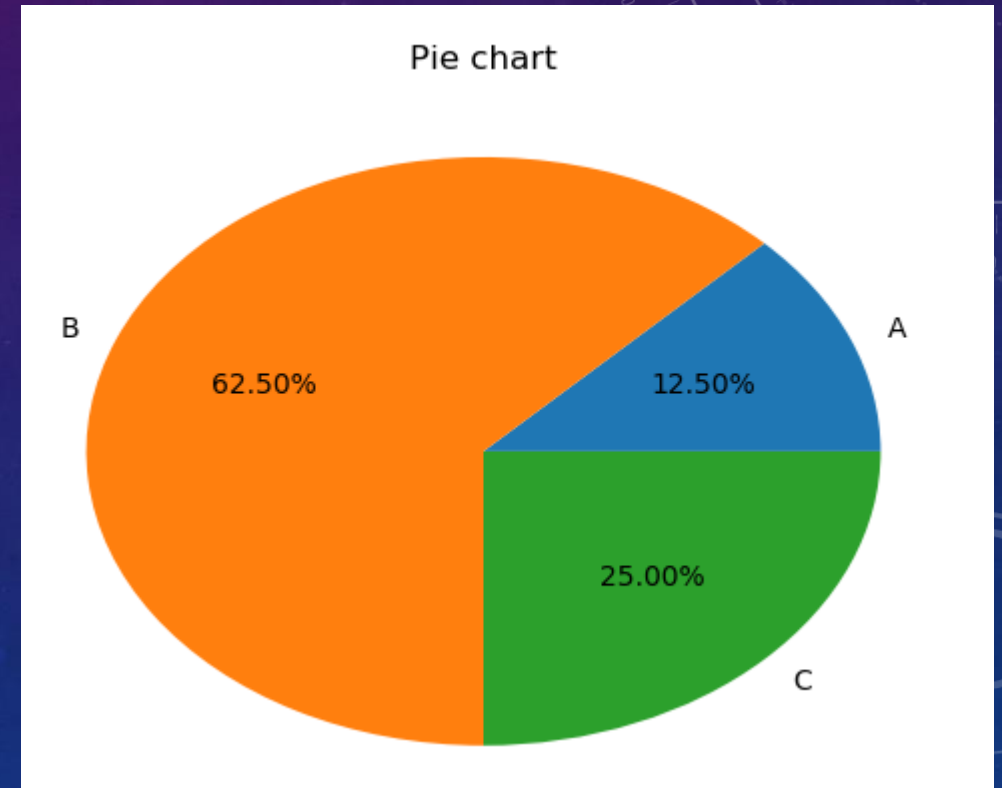
```
import matplotlib.pyplot as plt  
name_list=['C','B','A']  
index=[0 for i in range(len(name_list))]  
cnt_list = []  
cnt_list.append(25)  
cnt_list.append(50)  
cnt_list.append(10)  
plt.bar(range(len(cnt_list)), cnt_list, color='rgb')  
plt.xticks(index, name_list)  
plt.show()
```

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DRAWING FIGURE IN PYTHON

```
import matplotlib.pyplot as plt  
labels = ['A', 'B', 'C']  
X = [10, 50, 20]  
fig = plt.figure()  
plt.pie(X, labels=labels, autopct='%1.2f%%') # 画饼  
图（数据，数据对应的标签，百分数保留两位  
小数点）  
plt.title("Pie chart")  
plt.show()
```





THANKS !

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