In [ ]:

```python
#Import the required liberary
import pandas as pd
import warnings
warnings.filterwarnings('ignore')
import matplotlib.pyplot as plt
```

In [4]:

```python
data = pd.read_excel('E:\Aishwarya official\Aishwarya Data Scince\Course 4\DS1_C4_S5_Employee_Data_Practice.xlsx')
data
```

Out[4]:

	Employee_Code	Gender	Department	Annual Salary ($)	Age	Work_Experience
0	1010	Male	IT	27000	22	0
1	1011	Female	IT	48000	27	4
2	1012	Male	Sales	75000	31	7
3	1013	Male	Sales	61000	29	6
4	1014	Female	Finance	45000	27	4
...	...	...	...	...	...	...
65	1074	Female	HR	82500	43	13
66	1075	Male	Sales	53500	28	5
67	1076	Female	HR	57000	29	6
68	1077	Male	Sales	66500	33	7
69	1078	Male	Finance	92000	45	19

70 rows × 6 columns

Task 1:

In [5]:

```python
group = data.groupby(['Department'])['Annual Salary ($)'].sum()
group
```

Out[5]:

```
Department
Finance     790000
HR          987000
IT         1282900
Sales      1089000
Name: Annual Salary ($), dtype: int64
```

In [6]:

```python
sort = data.sort_values('Annual Salary ($)', ascending = False)
sort
```

Out[6]:

	Employee_Code	Gender	Department	Annual Salary ($)	Age	Work_Experience
64	1073	Male	IT	170000	50	24
29	1039	Female	HR	140000	49	20
14	1024	Female	HR	95000	35	9
20	1030	Male	Sales	94000	37	12
69	1078	Male	Finance	92000	45	19
...	...	...	...	...	...	...
38	1047	Female	Sales	28000	22	0
17	1027	Female	HR	28000	22	0
7	1017	Male	IT	28000	23	0
46	1055	Male	IT	27500	22	0
0	1010	Male	IT	27000	22	0

70 rows × 6 columns

In [7]:

```python
plt.bar(sort['Department'],data['Annual Salary ($)'])
plt.show()
```
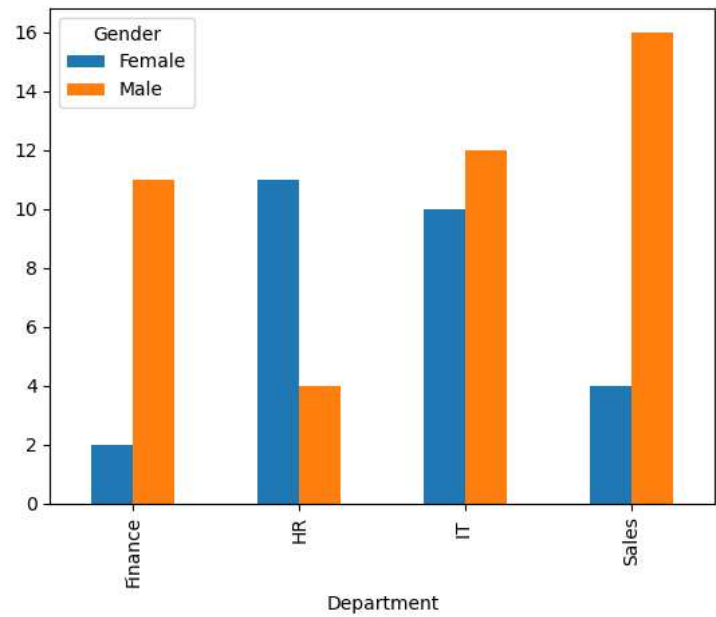

Task 2

In [8]:
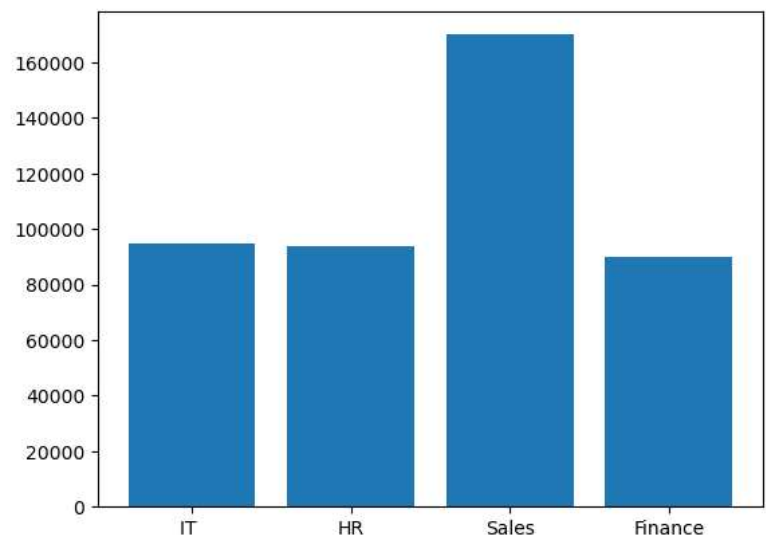
```python
cross = pd.crosstab(data.Department,data.Gender,rownames=['Department'],colnames=['Gender'])
cross
```

Out[8]:

Gender	Female	Male
Department		
Finance	2	11
HR	11	4
IT	10	12
Sales	4	16

In [9]:

```python
cross.plot.bar();
```


Task 3

In [10]:

```python
IT = data[(data.Work_Experience == 0) & (data.Department != 'HR') & (data.Department != 'Sales') & (data.Department != 'Finance')]
IT
```

Out[10]:

|	Employee_Code	Gender	Department	Annual Salary ($)	Age	Work_Experience
0	1010	Male	IT	27000	22	0
7	1017	Male	IT	28000	23	0
12	1022	Male	IT	29000	22	0
46	1055	Male	IT	27500	22	0
47	1056	Female	IT	29000	23	0

In [12]:

```python
avg = IT['Annual Salary ($)'].mean()
print('The avg salary of IT with 0 Experience: ',avg)
```

The avg salary of IT with 0 Experience: 28100.0

In [24]:

```python
plt.boxplot(data['Annual Salary ($)'])
plt.show()
```
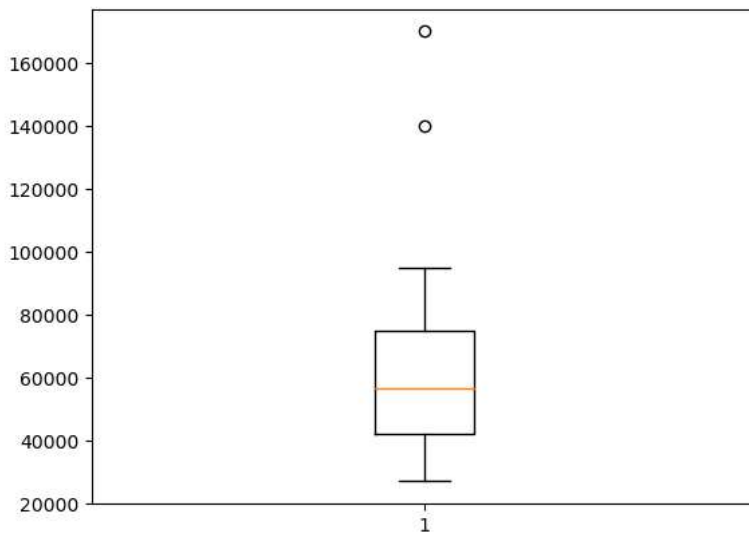

Task 4

In [14]:

```python
dept = data.groupby(['Department'])['Annual Salary ($)'].sum()
dept
```

Out[14]:

```
Department
Finance     790000
HR          987000
IT         1282900
Sales      1089000
Name: Annual Salary ($), dtype: int64
```
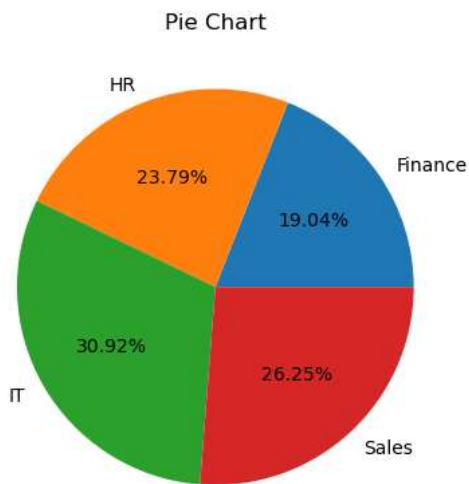
In [15]:

```python
dic = {'Department':['Finance','HR','IT','Sales'],'Annual Salary ($)':[790000,987000,1282900,1089000]}
dic
sal =pd.DataFrame(dic)
sal
```

Out[15]:

	Department	Annual Salary ($)
0	Finance	790000
1	HR	987000
2	IT	1282900
3	Sales	1089000

In [18]:

```python
plt.pie(sal['Annual Salary ($)'],labels=sal['Department'],autopct='%.2f%%')
plt.title('Pie Chart')
plt.show()
```


Task 5

In [19]:

```python
plt.hist(data['Age'])
plt.show
```
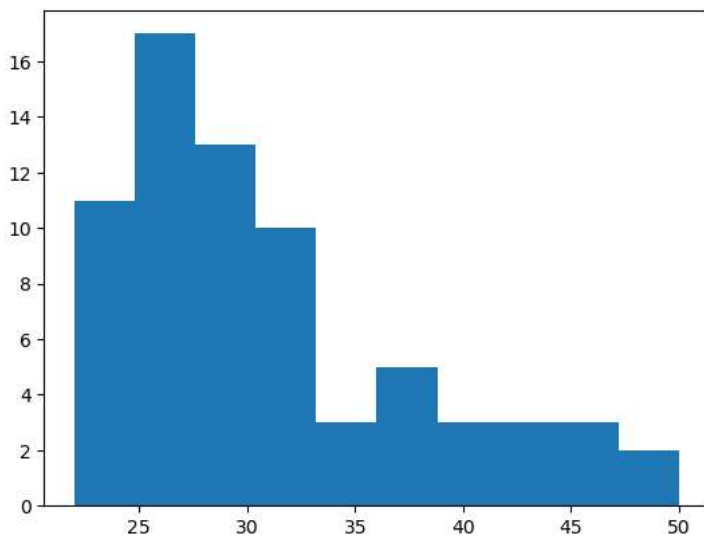
Out[19]:

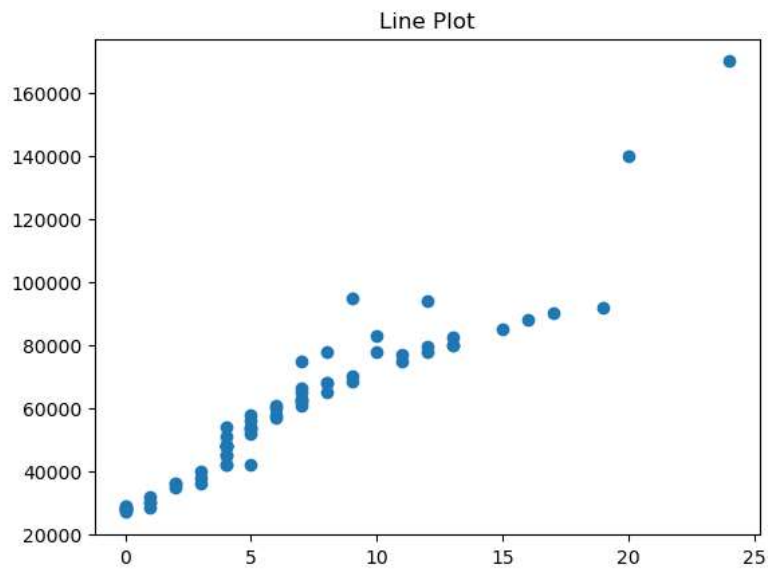```
<function matplotlib.pyplot.show(close=None, block=None)>
```
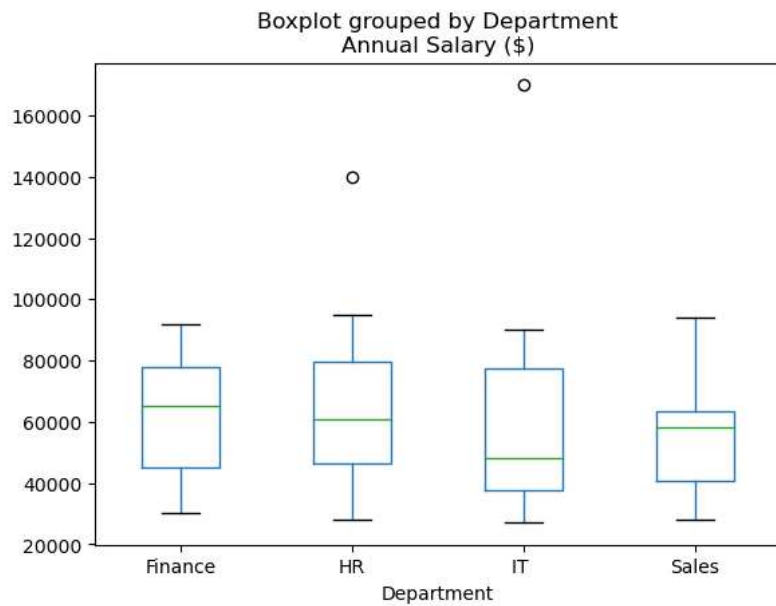
# Task 6

In [20]:

```python
plt.scatter(data['Work_Experience'],data['Annual Salary ($)'])
plt.title('Line Plot')
plt.show()
```


Task 7

In [21]:

```python
data.boxplot(by='Department', column =['Annual Salary ($)'], grid = False);
```


In [ ]: