In [71]:
```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [7]:
```
employee=pd.read_excel(r"K:\Desktop\NIIT\tables\DS1_C4_S5_Employee_Data_Practice.xlsx")
employee
```

Out[7]:

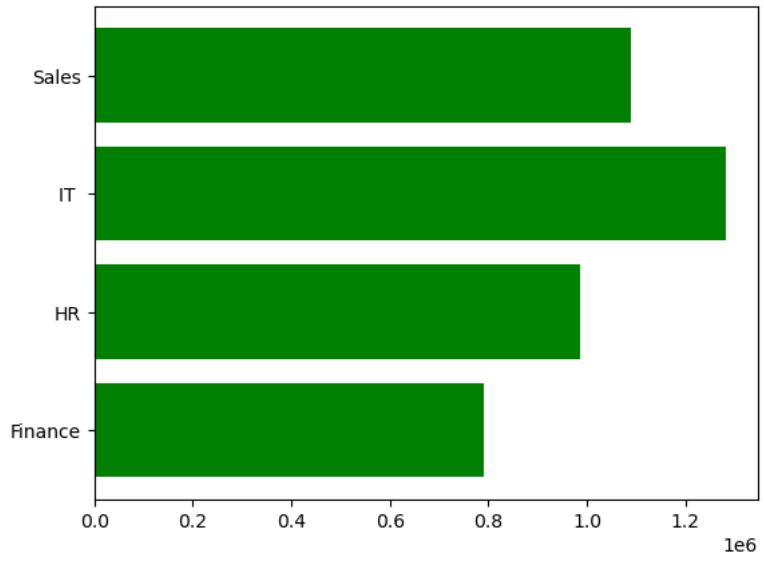
	Employee_Code	Gender	Department	Annual Salary ($)	Age	Work_Experience
0	1010	Male	IT	27000	22	0
1	1011	Female	IT	48000	27	4
2	1012	Male	Sales	75000	31	7
3	1013	Male	Sales	61000	29	6
4	1014	Female	Finance	45000	27	4
...	...	...	...	...	...	...
65	1074	Female	HR	82500	43	13
66	1075	Male	Sales	53500	28	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

Task1: To summarize department wise salary and use index to display bar graph to compare the salaries ¶

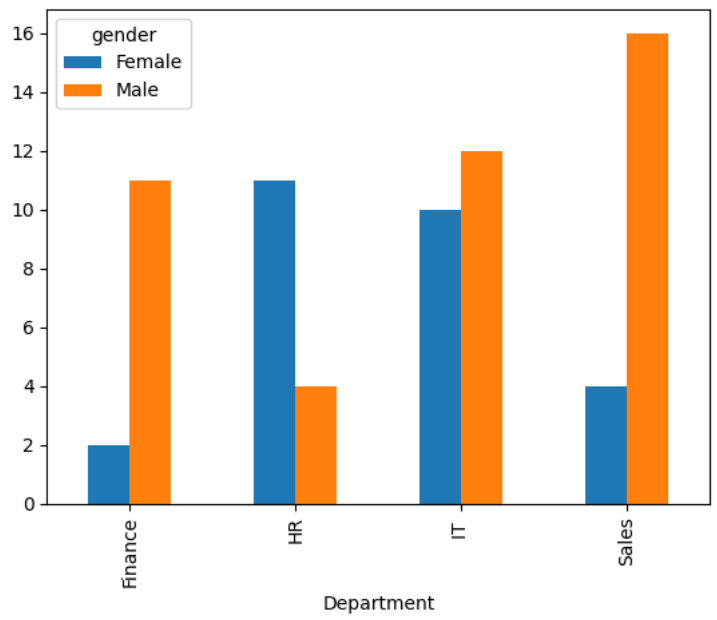
In [6]:
```
dept_sal=employee.groupby("Department").sum().loc[:,["Annual Salary ($)"]]
dept_sal.columns
plt.barh(dept_sal.index,dept_sal['Annual Salary ($)'],color="green")
```

Out[6]: <BarContainer object of 4 artists>



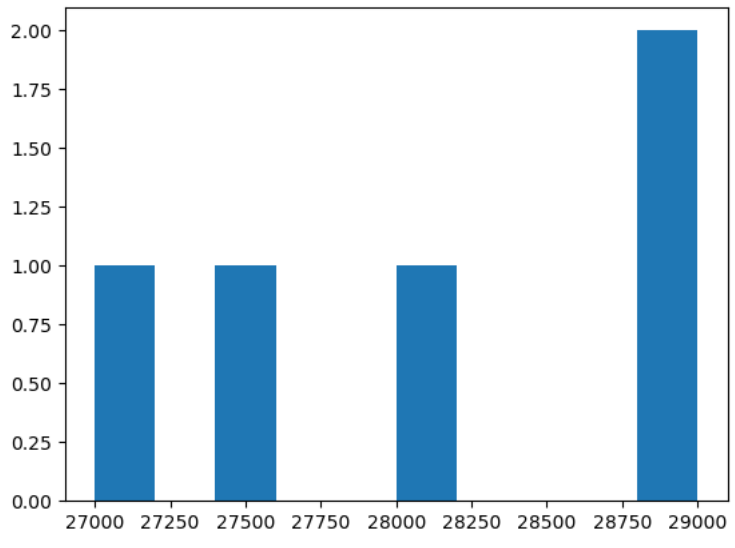
Task2: To summarize department wise count of male and female employees

In [4]:
```
gender=pd.crosstab(employee.Department,employee.Gender, rownames=['Department'], colnames=['gender'])
gender.columns
gender.plot.bar();
```



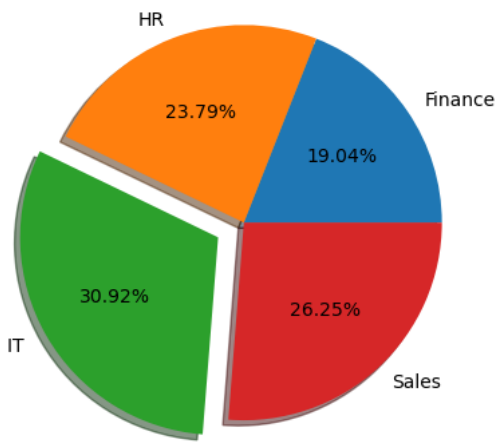
Task 3: To calculate how much would a fresher earn in IT department and find average

In [30]:
```
IT=employee[(employee.Department!="HR")&(employee.Department!="Sales")&(employee.Department!="Finance")&(employee.Work_Experience==0)]
IT["Annual Salary ($)"].mean()

plt.hist(IT["Annual Salary ($)"]);
```



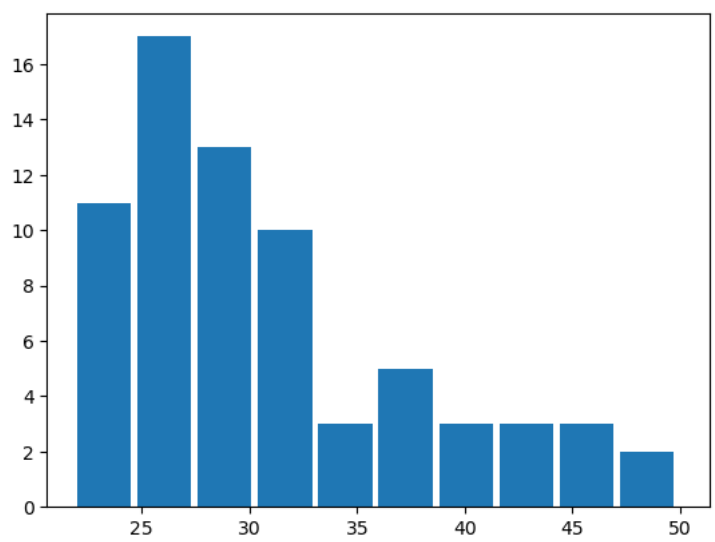
Task4: To determine department wise ratio of cost to company

In [45]:
```
sal_dept=employee.groupby("Department").sum()["Annual Salary ($)"]

plt.pie(sal_dept,labels=sal_dept.index,autopct="%.2f%%",explode=[0,0,0.15,0],shadow=True);
```



Task5: To find which age group has greatest number of employees

In [51]:
```
plt.hist(employee.Age,width=2.5)
plt.show()
print("The age group 0 to 30 has highest number of employees")
```

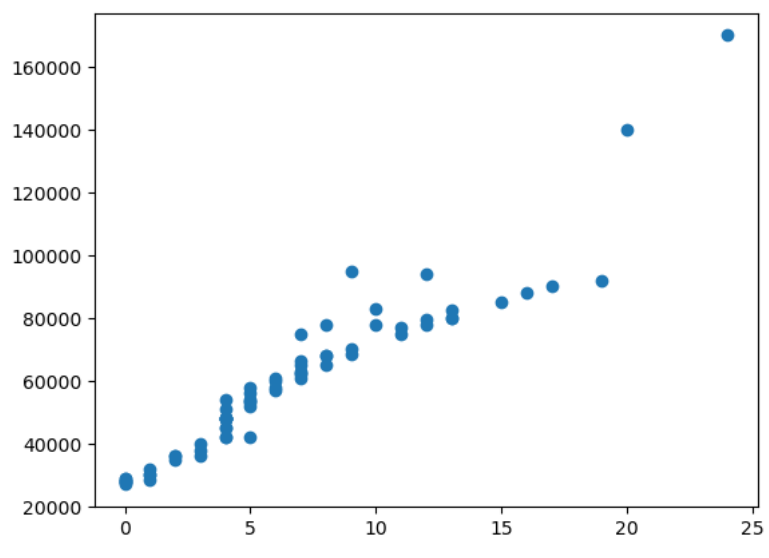



```
The age group 0 to 30 has highest number of employees
```

Task6: To plot trendline for salary and experience

In [53]:
```
plt.scatter(employee['Work_Experience'],employee['Annual Salary ($)'])
```

Out[53]:
```
<matplotlib.collections.PathCollection at 0x2059df848e0>
```



Task 7: To find draw boxplot for department wise salary spread

In [104]:
```
sns.boxplot(x="Department",y='Annual Salary ($)',data=employee);
```