

Smart Buildings Lab 2

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

df = pd.read_csv('lab2.csv')
```

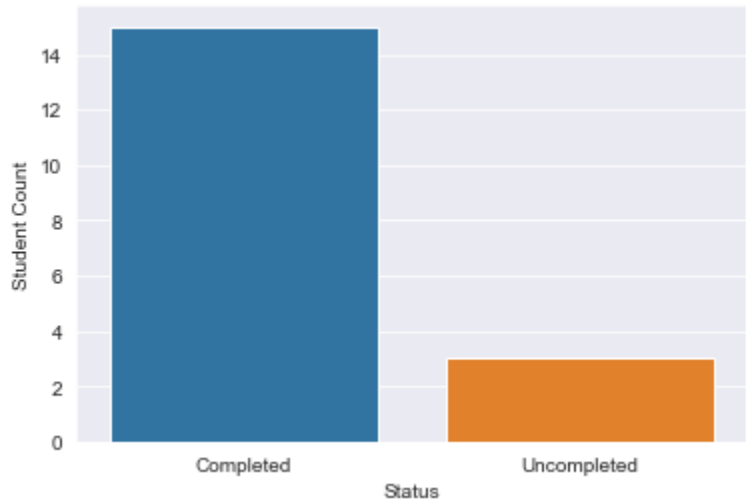
Questions

How many students didn't finish their assignments according to GitHub?

```
In [ ]: completed = len(df)
uncompleted = 18 - completed
print(f'{uncompleted} students did not finish their assignment')

p = sns.barplot(x = ['Completed', 'Uncompleted'], y = [completed, uncompleted])
p.set(xlabel='Status', ylabel='Student Count')
plt.show()
```

3 students did not finish their assignment



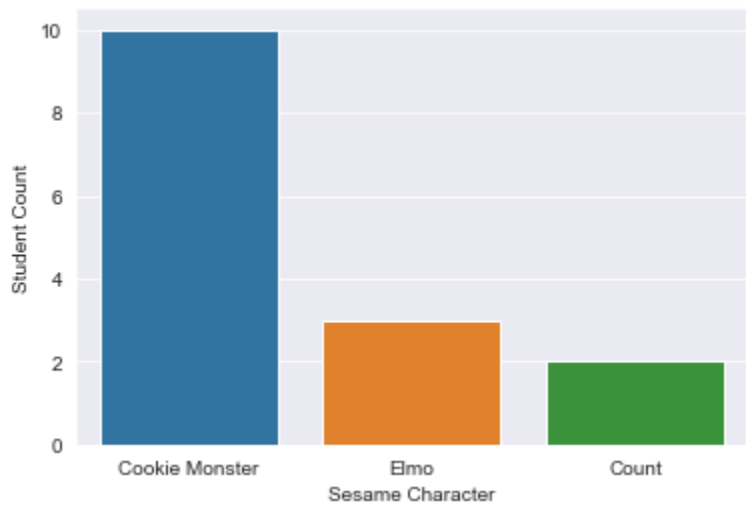
How many students support Elmo?

```
In [ ]: sesame_counts = df['sesame'].value_counts()
elmo = sesame_counts['elmo']

print(f'{elmo} people support Elmo')

p = sns.barplot(x = ['Cookie Monster', 'Elmo', 'Count'], y = sesame_counts)
p.set(xlabel='Sesame Character', ylabel='Student Count')
plt.show()
```

3 people support Elmo



How many students support cookie monster and are night owls?

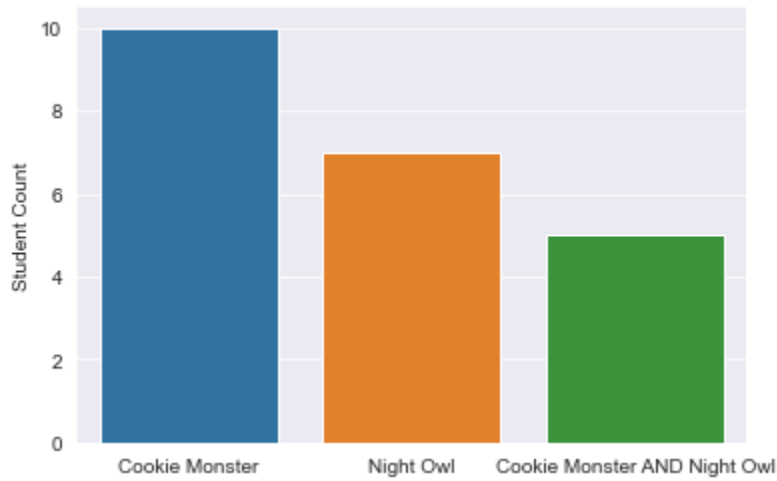
```
In [ ]: cn = df.loc[(df.sesame == 'cookie monster') & (df.sleep == 'night owl')]
l_cn = len(c)

cookie = len(df.loc[df.sesame == 'cookie monster'])
night = len(df.loc[df.sleep == 'night owl'])

print(f'{l} people support Cookie Monster and are night owls')

p = sns.barplot(x = ['Cookie Monster', 'Night Owl', 'Cookie Monster AND Night Owl'], y = [cookie, night, l_cn])
p.set(ylabel='Student Count')
plt.show()
```

5 people support Cookie Monster and are night owls



How many students do not support Elmo, does not play rock, and are morning birds?

```
In [ ]: erm = df.loc[(df.sesame != 'elmo') & (df.rps != 'rock') & (df.sleep != 'morning bird')]
l_erm = len(erm)
print(f'{l_erm} students do not support Elmo, does not play rock, and are morning birds')

no_mo = len(df.loc[(df.sesame != 'elmo')])
no_mo_rock = len(df.loc[(df.sesame != 'elmo') & (df.rps != 'rock')])

p = sns.barplot(x = ['No Elmo', 'No Elmo \nAND no Rock', 'No Elmo \nAND no Rock\nAND no Morning Bird'], y = [no_mo, no_mo_rock, l_erm])
p.set(ylabel='Student Count')
plt.show()
```

6 students do not support Elmo, does not play rock, and are morning birds

