In [1]:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:

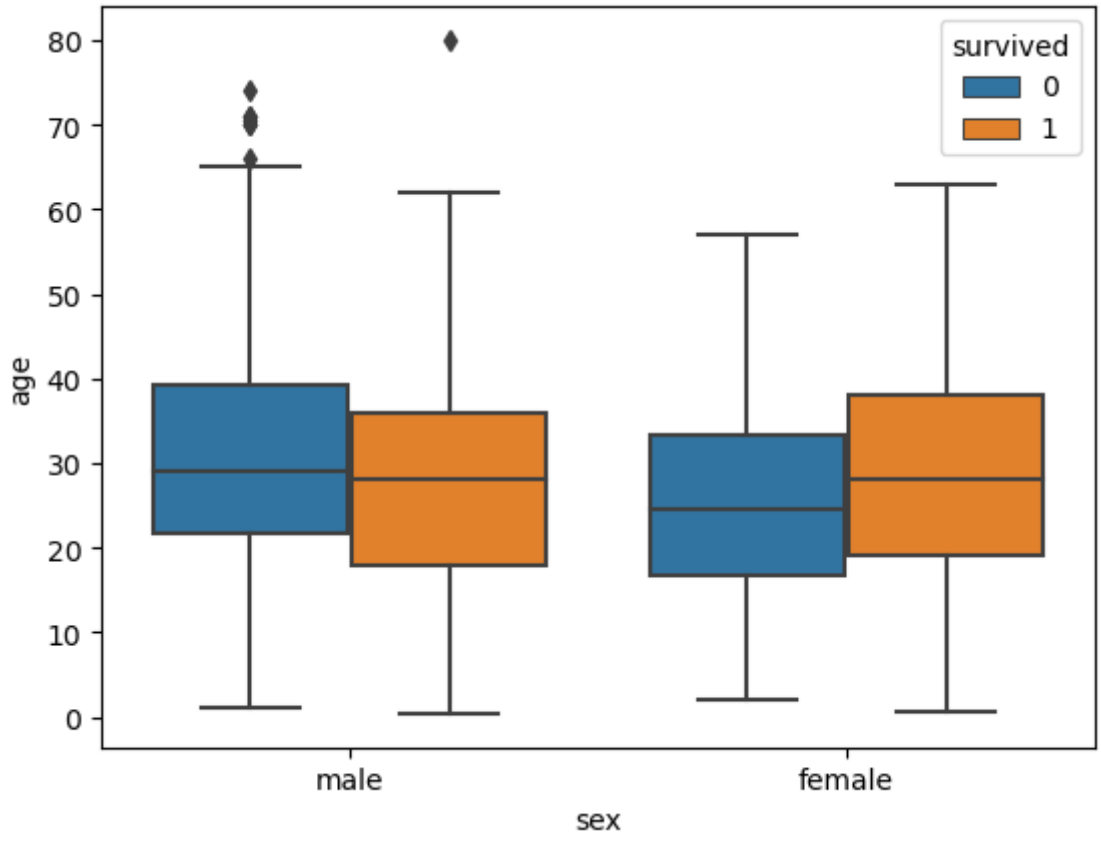
```
df= sns.load_dataset('titanic')
```

In [3]:

```
sns.boxplot(x='sex',y='age',data=df,hue="survived")
```

Out[3]:

```
<Axes: xlabel='sex', ylabel='age'>
```



Observations:

The box plot shows the distribution of age for each gender (male and female) based on their survival status (survived or not). The boxes represent the interquartile range (IQR) of the age distribution, with the median indicated by the horizontal line inside the box. The whiskers extending from the boxes represent the range of data within 1.5 times the IQR. Any data points beyond the whiskers are considered outliers. By comparing the boxes and whiskers for each gender and survival status, we can make the following observations: For both males and females, the median age of those who survived is generally lower than those who did not survive. The age range for females who survived is narrower compared to females who did not survive. This suggests that younger females had a higher chance of survival. For males, the age range is wider for those who did not survive, indicating that both younger and older males were less likely to survive. There are outliers in the age distribution for both genders, especially for males who did not survive, indicating some

older males who did not survive the disaster. Overall, the box plot provides insights into the distribution of age with respect to gender and survival status, highlighting the potential impact of age on survival probabilities for different genders.

In [ ]: