Task 2.7:

1. Consider your favorite website/application (you can also take CareerFoundry). Think about the various data that your favorite website/application collects. Write down how analyzing the collected data could help the website/application.

Ans: The analysis of the data collected by websites can help them make a more comfortable and specifically tailored experience for them further improving the audience retention and attracting more customers increasing their business. Further using the data, the websites can make data driven decisions to further make better improvements and features that can help more the audience.

2. Read the Django official documentation on QuerySet API. Note down the different ways in which you can evaluate a QuerySet.

Ans: A queryset is an iterable meaning we can iterate over it using a for loop and then access item of it. Another feature because of being an iterable that is very helpful in a queryset is the ability to perform slices. We can specify indices and then the portion of the queryset of those indices can be returned. We can also use some of the other built-in functionalities like length, counting etc.

3. In the Exercise, you converted your QuerySet to DataFrame. Now do some research on the advantages and disadvantages of QuerySet and DataFrame, and explain the ways in which DataFrame is better for data processing.

Ans:

Querysets have some advantages over dataframes. Querysets use lazy loading and then fetch data only when it is required. This makes the querying of data very efficient and requires less memory. Querysets also have the functionality to perform SQL queries and thus can be used for CRUD operations on a database. Similarly, since the models are closely linked with the Querysets and data is retrieved using them, we can utilize their functionalities and take advantage of model schemas as well.

Querysets also have some disadvantages when put in comparison with dataframes. Dataframes are designed for large amounts of data and are better for complex numerical and statistical computation. Many of the functionalities required in these fields are not easy to perform using querysets whereas dataframes have a lot of them built-into them. Querysets work with models and database but Dataframes on the other hand can work with databases and other sources of data as well.