Assignment - Advanced Python [Major]

Grading			
Event	Decoding Skills	Number of question not attempted	Overall Output
Assignment	0- If the learner does not submit the assignment or if he tries to attempt it but the applied hypothesis is wrong or showing an error. 10- If the learner clearly decodes the given data set or questions by performing the tasks defined in the question	0 - If the learner does not solve any questions or solves less than 40% of the assignment correctly. 5 - If the learner successfully solves between 40-80% of the given questions. 10- If the learner solves 80-100% of the questions correctly	0-If the output presented is completely wrong. 5- If the given output is partially correct along with incorrect presentation. 10- If all the answers are attempted correctly along with presentation skills

Use the Honey Production in the USA Dataset and solve the following question by using the dataset, to download the dataset click on the dataset name.

Topic: To visualize how honey production is changed over the years

(1998-2021) in the United States.

Background:

In 2006, global concern was raised over the rapid decline in the honeybee population, an integral component of American honey agriculture. Large numbers of hives were lost to Colony Collapse Disorder, a phenomenon of disappearing worker bees causing the remaining hive colony to collapse. Speculation as to the cause of this disorder points to hive diseases and pesticides harming the pollinators, though no overall consensus has been reached. The U.S. used to locally produce over half the honey it consumes per year. Now, honey mostly comes from overseas, with 350 of the 400 million pounds of honey consumed every year originating from imports. This dataset provides insight into honey production supply and demand in America from 1998 to 2021.

Objective:

To visualize how honey production has changed over the years (1998-2021) in the United States.

Key questions to be answered:

1. How has honey production yield changed from 1998 to 2021? **2.** Over time, what are the major production trends across the states? **3.** Does the data show any trends in terms of the number of honey producing colonies and yield per colony before 2006, which was when concern over Colony Collapse Disorder spread nationwide? **4.** Are there any patterns that can be observed between total honey production and value of production every year?

5. How has the value of production, which in some sense could be tied to demand, changed every year?

6. Constructs the related plots using Seaborn and Matplot apply customization and derive insights from the visualization.

Dataset:

state: Various states of the U.S.

numcol: Number of honey-producing colonies. Honey producing colonies are the maximum number of colonies from which honey was taken during

the year. It is possible to take honey from colonies that did not survive the entire year

yieldpercol: Honey yield per colony. Unit is pounds

totalprod: Total production (numcol x yieldpercol). Unit is pounds

stocks: Refers to stocks held by producers. Unit is pounds

priceperlb: Refers to average price per pound based on expanded sales. The unit is dollars.

prodvalue: Value of production (totalprod x priceperlb). The unit is dollars.

year: Year of production