Python Programming Lab

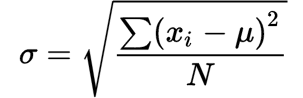
MSc SS 4th sem

1. Mathew, wholesale wine distributor, sells wine by cases of six bottles. He prices the wine such that each case generates €8.00 in profit. The sale of his wine is considered random. Mathew has records to indicate the cases of wine sold each day for the last consecutive 240 days and these are in the range of 10-20 cases as indicated by the Table below.

|  |  |
| --- | --- |
| **Cases sold per day**  **x** | **No. days this value x is sold**  **n** |
| 10 | 12 |
| 11 | 19 |
| 12 | 30 |
| 13 | 35 |
| 14 | 40 |
| 15 | 32 |
| 16 | 25 |
| 17 | 15 |
| 18 | 14 |
| 19 | 10 |
| 20 | 9 |
| **Total days** | **240** |

Write a Python program to do the following:

1. Estimate the average number of cases of wine sold per day. Calculate the mode and median. Determine the variance and the standard deviation of the number of cases of wine sold per day.



Variance = 

1. Estimate the average profit per day generated by the sale of wine and the average annual profit based on 240 days.