Data Science with Python

Practical sheet 02

1. Create an array of daily temperatures for a week. Find the highest temperature using a for loop and print it.
2. Calculate the total sales for a month using a while loop, given an array of daily sales figures. Print the total sales amount.
3. Given an array of student scores, count how many students passed (score >= 50) using a for loop. Print the number of students who passed.
4. Find the product with the lowest inventory using a for loop, given an array of inventory counts for different products. Print the product with the lowest inventory.
5. Calculate the average daily expense using a while loop, given an array of daily expenses. Print the average daily expense.
6. Determine the fastest marathon finish time from an array of finish times using a for loop. Print the fastest time.
7. Increase each product price by 10% using a while loop, given an array of product prices. Print the updated prices.
8. Calculate the total website traffic for a week using a for loop, given an array of daily traffic data. Print the total traffic.
9. Find the month with the highest rainfall using a while loop, given an array of monthly rainfall measurements. Print the month and the rainfall amount.
10. Calculate the class average from an array of exam scores using a for loop. Print the average score.
11. Find the total distance traveled over a week using a while loop, given an array of daily travel distances. Print the total distance.
12. Count how many people are above 18 years old using a for loop, given an array of ages. Print the number of people above 18.
13. Calculate the total bank account balance using a while loop, given an array of individual account balances. Print the total balance.
14. Find the lightest product using a for loop, given an array of product weights. Print the weight of the lightest product.

15. Determine how many days had sales above $100 using a while loop, given an array of daily sales figures. Print the number of days with sales above $100.
16. Find the longest run time using a for loop, given an array of daily running times. Print the longest run time.
17. Calculate the median score using a while loop, given an array of test scores. Print the median score.
18. Identify the top three highest temperatures using a for loop, given an array of daily temperatures. Print the top three temperatures.
19. Calculate the standard deviation of an array of exam scores using a while loop. Print the standard deviation.
20. Find all prime numbers in an array of integers using a for loop. Print the prime numbers.