**Scenario-Based Questions for Basic Python**

1. **Managing Student Scores**  
   A teacher wants to keep track of students' scores in a class. How would you store all the scores in one place? How can new scores be added, specific ones removed, and the highest and lowest scores found? How would you arrange the scores in order and find the average?
2. **Storing Product Information**  
   An online store sells different products, each having a name, price, and category. How would you keep all these details together for each product in a way that ensures the information cannot be changed accidentally? How can you access individual details when needed?
3. **Contact Management System**  
   A phonebook app stores contact names and their phone numbers. How would you organize the contacts so that searching for a name quickly gives the correct number? How would you add a new contact, update an existing one, remove a contact, and check if a specific name is saved?
4. **Removing Duplicate Emails**  
   A company collects emails from users who register for an event, but some people sign up more than once. How would you store these emails to make sure each one is listed only once? How would you check if a person has already signed up?
5. **Generating a Number Sequence**  
   A scientist needs to generate a sequence of numbers where each number is the sum of the two before it. Instead of storing all the numbers, how can the scientist get the next number only when needed? How would you display the first 10 numbers of this sequence?
6. **Employee Salary Calculation**  
   A company calculates employee salaries based on how many hours they worked and how much they are paid per hour. How would you create a method to compute the total earnings? How would you modify it to include bonuses when applicable?
7. **Movie Ticket Booking**  
   A cinema charges a fixed price for each ticket, but there are discounts for children and senior citizens. How would you design a system where the price is adjusted based on a person’s age? How would you test it with different ages?
8. **Sorting a List of Students**  
   A school wants to sort a list of students based on their exam scores from highest to lowest. How would you organize the list? How would you change the sorting order so that it arranges students by age instead?
9. **Calculating a Product of Numbers**  
   A mathematician wants to find the product of all numbers from 1 to a given number. How would you design a system where a number is broken down into smaller parts, each part calculated separately, and then combined to get the final result? How would this approach repeat itself for different numbers?
10. **Processing Sales Data**  
    A store owner keeps a list of prices for all products sold in a day. How would you apply a discount to each price? How would you find all items that cost more than a certain amount? How would you calculate the total earnings of the day using all the prices?