**1**.Create a list called fruits with the following items: "apple", "banana", "cherry", "date", and "elderberry".Print the list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

print(fruits)

**2.** Print the first and last items from the fruits list. Print the second and fourth items from the list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

print(fruits[0])

print(fruits[-1])

print(fruits[1])

print(fruits[3])

**3.** Replace "banana" in the fruits list with "blueberry".Print the modified list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

fruits[1] = "blueberry"

print(fruits)

**4**. Append "fig" and "grape" to the fruits list.Remove "apple" from the list.Print the list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

fruits.append("fig")

fruits.append("grape")

fruits.remove("apple")

print(fruits)

**5.** Slice the first three elements from the fruits list and assign them to a new list called first\_three\_fruits. Print first\_three\_fruits.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

first\_three\_fruits = fruits[:3]

print(first\_three\_fruits)

**6.** Find and print the length of the fruits list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

print(len(fruits))

**7.** Create a second list called vegetables with the following items: "carrot", "broccoli", "spinach".

Concatenate the fruits and vegetables lists into a new list called food. Print the food list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

vegetables = ["carrot", "broccoli", "spinach"]

food = fruits + vegetables

print(food)

**8.** Loop through the fruits list and print each item on a new line.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

for fruit in fruits:

print(fruit)

**9.** Check if "cherry" and "mango" are in the fruits list. Print a message for each check.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

if "cherry" in fruits:

print("cherry is in the fruits list")

else:

print("cherry is not in the fruits list")

if "mango" in fruits:

print("mango is in the fruits list")

else:

print("mango is not in the fruits list")

**10.** Use list comprehension to create a new list called fruit\_lengths that contains the lengths of each item in the fruits list. Print the fruit\_lengths list.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

fruit\_lengths = [len(fruit) for fruit in fruits]

print(fruit\_lengths)

**11.** Sort the fruits list in alphabetical order and print it. Sort the fruits list in reverse alphabetical order and print it.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

fruits.sort()

print(fruits)

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

fruits.sort(reverse=True)

print(fruits)

**12.** Create a list called nested\_list that contains two lists: one with the first three fruits and one with the last three fruits. Access the first element of the second list inside nested\_list and print it.

**Program:**

fruits = ["apple", "banana", "cherry", "date", "elderberry"]

nested\_list = [fruits[:3], fruits[3:]]

print(nested\_list[1][0])

**13.** Create a list called numbers with the following elements: [1, 2, 2, 3, 4, 4, 4, 5]. Remove the duplicates from the list and print the list of unique numbers.

**Program:**

numbers = [1, 2, 2, 3, 4, 4, 4, 5]

unique\_numbers = list(set(numbers))

print(unique\_numbers)

**Program:**

numbers = [1, 2, 2, 3, 4, 4, 4, 5]

unique\_numbers = []

for num in numbers:

if num not in unique\_numbers:

unique\_numbers.append(num)

print(unique\_numbers)

**14.** Split the string "hello, world, python, programming" into a list called words using the comma as a delimiter. Join the words list back into a string using a space as the separator and print it.

**Program:**

words = "hello, world, python, programming".split(", ")

joined\_string = " ".join(words)

print(joined\_string)