## **Concept: Lists**

Lists are ordered collections of items, allowing storage of multiple values in a single variable. They are mutable, meaning elements can be changed after creation.

Lists can contain mixed data types and even other lists. Elements are indexed starting at 0.

Common operations include appending, removing, sorting, and slicing. Lists are one of Python 's most versatile data structures.

Use list comprehensions for concise creation and transformation of lists.

```
fruits = ['apple', 'banana', 'cherry']
print(fruits[0])

fruits.append('orange')
fruits.remove('banana')
print(fruits)

squares = [x**2 for x in range(5)]
print(squares)
```