Python Learning Notes – Day 1

This document contains notes for Day 1 (16/07/2025) of my 60-Day Python Roadmap.  
This is a continuation of my 30 Days Python Challenge conducted by IDC.

# Lists

✅ Created a list of fruits:  
fruits = ['Banana', 'Orange', 'Apple', 'Guava', 'Grapes']  
  
✅ Added an item using append():  
fruits.append('Mango')  
  
✅ Removed an item using remove():  
fruits.remove('Orange')  
  
✅ Accessed elements by index:  
fruits[1:4] (slicing)  
fruits[-1] (last element)  
fruits[0:3] (sublist)

# Tuples

✅ Created a tuple:  
fruits = ('Banana', 'Orange', 'Apple', 'Guava', 'Grapes', 'Mango')  
  
⚠️ Tuples are immutable:  
Attempting fruits.append('Mango') raises AttributeError.

# Sets

✅ Created a set with duplicates:  
nums = {1,2,3,3,4,5,5,5,6}  
Duplicates are automatically removed.  
  
✅ Added an element using add():  
nums.add(10)  
  
✅ Removed an element using remove():  
nums.remove(5)

# Dictionaries

✅ Created a dictionary with 3 key-value pairs:  
dict1 = {  
 'Surya':30,  
 'Abinaya':33,  
 'Ishu':31  
}  
  
✅ Accessed a value by key:  
dict1['Ishu']  
  
✅ Updated a value:  
dict1['Ishu'] = 28  
  
✅ Looped through keys:  
for key in dict1.keys():  
✅ Looped through values:  
for value in dict1.values():  
✅ Looped through key-value pairs:  
for key, value in dict1.items():

# Mini Project: Remove Duplicates

✅ Created a list of numbers:  
nums = [1,2,3,4,4,5,9,8,10]  
  
✅ Converted list to set to remove duplicates:  
sets = set(nums)  
  
✅ Converted set back to list:  
nums\_new = list(sets)  
  
✅ Printed all versions and verified types.

🎯 Day 1 completed successfully. Ready to proceed to Day 2 – Loops & Comprehensions.