

Linear Search with Random Key

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# □ Linear Search in Array with Random Key (Python)
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# 1. Create an array
# 2. Choose a random key to search
# 3. Use a for loop and if-else to search for the key
# 4. Return index if found, else return -1

import random

# Step 1: Create an array
arr = [10, 20, 30, 40, 50, 60, 70]

# Step 2: Select a random key to search (could be in or not in array)
key = random.choice([20, 40, 90, 100]) # Includes values not in array
print("Array:", arr)
print("Key to search:", key)

# Step 3: Linear search using for loop
found = False
for i in range(len(arr)):
    if arr[i] == key:
        print(f"□ Key found at index {i}")
        found = True
        break

# Step 4: If not found
if not found:
    print("□ Key not found, returning -1")

Array: [10, 20, 30, 40, 50, 60, 70]
Key to search: 100
□ Key not found, returning -1
```