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In [1]: # Step 1: Input List of guest IDs  
guest_ids = [101, 102, 103, 101, 104, 102, 105]  
declined_guest = 103
```

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In [2]: # Step 2: Remove duplicates using set (for checking)  
unique_set = set()  
unique_guests = []
```

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In [3]: # Step 3: Loop through original list to maintain order  
for guest in guest_ids:  
    if guest not in unique_set:           # not duplicate  
        unique_set.add(guest)  
        unique_guests.append(guest)       # keep order
```

```
In [4]: # Step 4: Remove declined guest if present  
if declined_guest in unique_guests:  
    unique_guests.remove(declined_guest)
```

```
In [5]: # Step 5: Display final guest list  
print("Final Unique Guest List:", unique_guests)
```

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Final Unique Guest List: [101, 102, 104, 105]
```

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In [8]: # Create list  
numbers = [10, 20, 30, 40]  
print("Original List:", numbers)  
  
# Add element numbers.append(50)  
print("After append:", numbers)  
  
# Insert element numbers.insert(2, 25)  
print("After insert:", numbers)  
  
# Update element  
numbers[1] = 15  
print("After update:", numbers)  
  
# Remove element numbers.remove(30)  
print("After remove:", numbers)  
  
# Pop element numbers.pop()  
print("After pop:", numbers)  
  
# Slicing  
print("Slicing (1 to 3):", numbers[1:3])
```

```
Original List: [10, 20, 30, 40]  
After append: [10, 20, 30, 40]  
After insert: [10, 20, 30, 40]  
After update: [10, 15, 30, 40]  
After remove: [10, 15, 30, 40]  
After pop: [10, 15, 30, 40]  
Slicing (1 to 3): [15, 30]
```

```
In [11]: # Create set
fruits = {"apple", "banana", "mango"}
print("Original Set:", fruits)

# Add element
fruits.add("orange")
print("After add:", fruits)

# Update set
fruits.update(["grapes", "apple"])
print("After update:", fruits)

# Remove element
fruits.remove("banana")
print("After remove:", fruits)

# Pop element
fruits.pop()
print("After pop:", fruits)
```

```
Original Set: {'mango', 'banana', 'apple'}
After add: {'orange', 'mango', 'banana', 'apple'}
After update: {'mango', 'grapes', 'orange', 'banana', 'apple'}
After remove: {'mango', 'grapes', 'orange', 'apple'}
After pop: {'grapes', 'orange', 'apple'}
```

```
In [12]: # Create dictionary
student = {"name": "Amit", "age": 20, "marks": 80}
print("Original Dictionary:", student)

# Add element
student["city"] = "Mumbai"
print("After add:", student)

# Update value
student["marks"] = 85
print("After update:", student)

# Remove element
student.pop("age")
print("After pop:", student)

# Remove last item
student.popitem()
print("After popitem:", student)
```

```
Original Dictionary: {'name': 'Amit', 'age': 20, 'marks': 80}
After add: {'name': 'Amit', 'age': 20, 'marks': 80, 'city': 'Mumbai'}
After update: {'name': 'Amit', 'age': 20, 'marks': 85, 'city': 'Mumbai'}
After pop: {'name': 'Amit', 'marks': 85, 'city': 'Mumbai'}
After popitem: {'name': 'Amit', 'marks': 85}
```

In [ ]:

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