AI ASSISTANT CODING

Assignment-11.3

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Task 1: Smart Contact Manager (Arrays & Linked Lists)

Scenario

SR University's student club requires a simple Contact Manager Application to store members' names and phone numbers. The system should support efficient addition, searching, and deletion of contacts.

Tasks

1. Implement the contact manager using arrays (lists).
2. Implement the same functionality using a linked list for dynamic memory allocation.
3. Implement the following operations in both approaches:
o Add a contact
o Search for a contact
o Delete a contact
4. Use GitHub Copilot to assist in generating search and delete methods.
5. Compare array vs. linked list approaches with respect to:
o Insertion efficiency
o Deletion efficiency

Expected Outcome

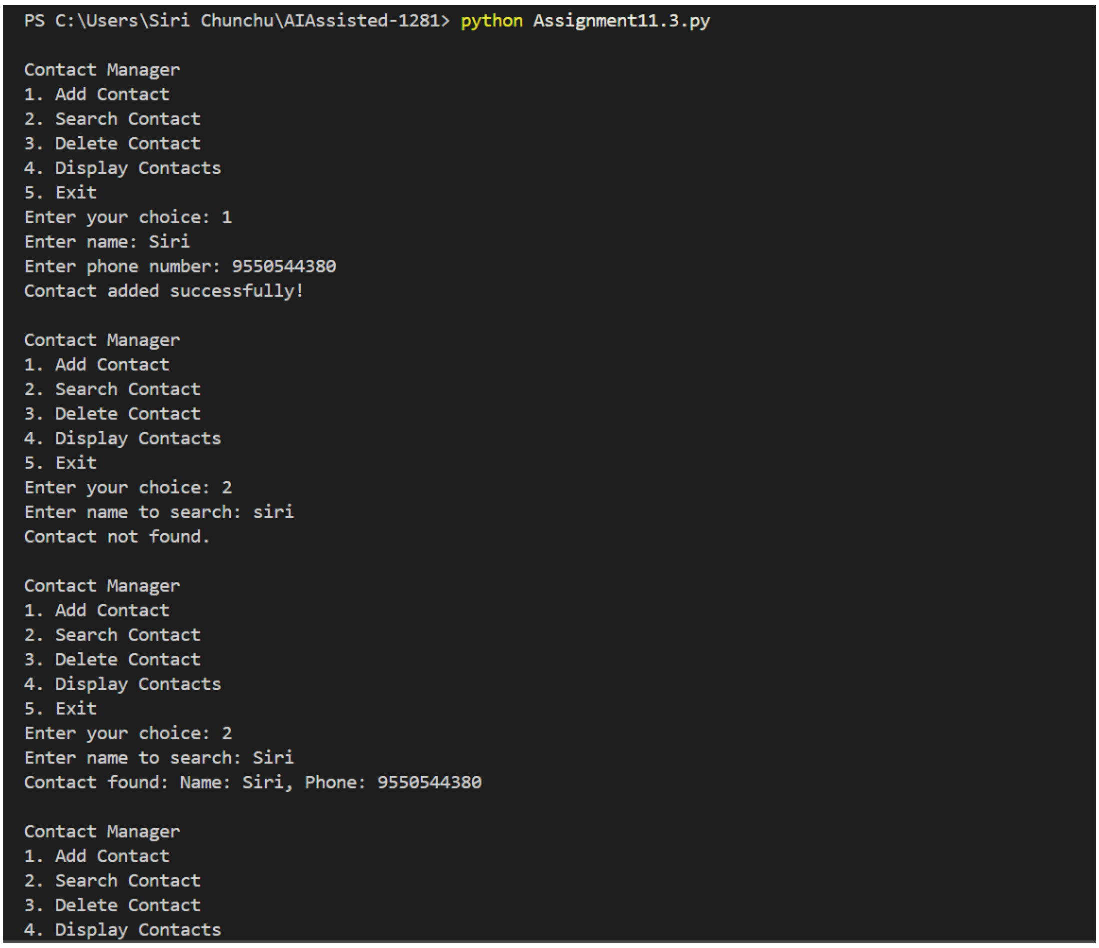
- Two working implementations (array-based and linked-list-based).
- A brief comparison explaining performance differences.

Prompt: Generate a Python program to implement a Contact Manager using a list (array).
Each contact should store name and phone number.
Include the following methods:
- add_contact(name, phone)
- search_contact(name)
- delete_contact(name)
The program should handle basic errors and print appropriate messages.
Add comments explaining each method.

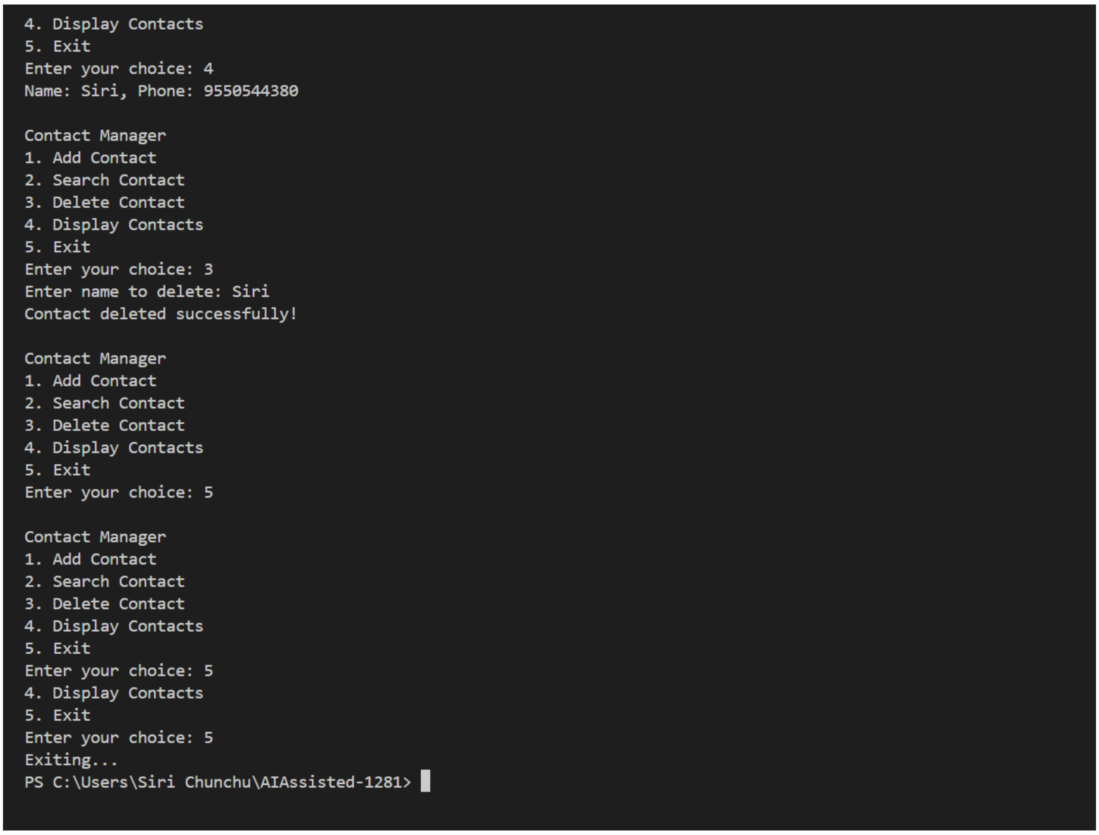
1A. Array-Based Implementation

```
class ContactManagerArray:
    def __init__(self):
        self.contacts = []
    def add_contact(self, name, phone):
        self.contacts.append({"name": name, "phone": phone})
        print("Contact added successfully!")
    def search_contact(self, name):
        for contact in self.contacts:
            if contact["name"] == name:
                return contact
        return None
    def delete_contact(self, name):
        for i in range(len(self.contacts)):
            if self.contacts[i]["name"] == name:
                del self.contacts[i]
                print("Contact deleted successfully!")
                return
        print("Contact not found!")
    def display_contacts(self):
        if not self.contacts:
            print("No contacts to display.")
            return
        for contact in self.contacts:
            print(f"Name: {contact['name']}, Phone: {contact['phone']}")
# Example usage dynamic inputs
if __name__ == "__main__":
    manager = ContactManagerArray()
    while True:
        print("\nContact Manager")
        print("1. Add Contact")
        print("2. Search Contact")
        print("3. Delete Contact")
        print("4. Display Contacts")
        print("5. Exit")
        choice = input("Enter your choice: ")
        if choice == '1':
            name = input("Enter name: ")
            phone = input("Enter phone number: ")
            manager.add_contact(name, phone)
        elif choice == '2':
            name = input("Enter name to search: ")
            contact = manager.search_contact(name)
            if contact:
                print(f"Contact found: Name: {contact['name']}, Phone: {contact['phone']}")
            else:
                print("Contact not found.")
        elif choice == '3':
            name = input("Enter name to delete: ")
            manager.delete_contact(name)
        elif choice == '4':
            manager.display_contacts()
        elif choice == '5':
            print("Exiting...")
            break
        else:
            print("Invalid choice. Please try again.")
```

<u>Output:</u>



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 1
Enter name: Siri
Enter phone number: 9550544380
Contact added successfully!

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 2
Enter name to search: siri
Contact not found.

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 2
Enter name to search: Siri
Contact found: Name: Siri, Phone: 9550544380

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
```



```
4. Display Contacts
5. Exit
Enter your choice: 4
Name: Siri, Phone: 9550544380

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 3
Enter name to delete: Siri
Contact deleted successfully!

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 5

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Display Contacts
5. Exit
Enter your choice: 5
4. Display Contacts
5. Exit
Enter your choice: 5
Exiting...
PS C:\Users\Siri Chunchu\AIAssisted-1281>
```

Prompt: Generate a Python implementation of a Contact Manager using a singly linked list.
Create a Node class to store name and phone number.
Include:
- add_contact(name, phone)
- search_contact(name)
- delete_contact(name)

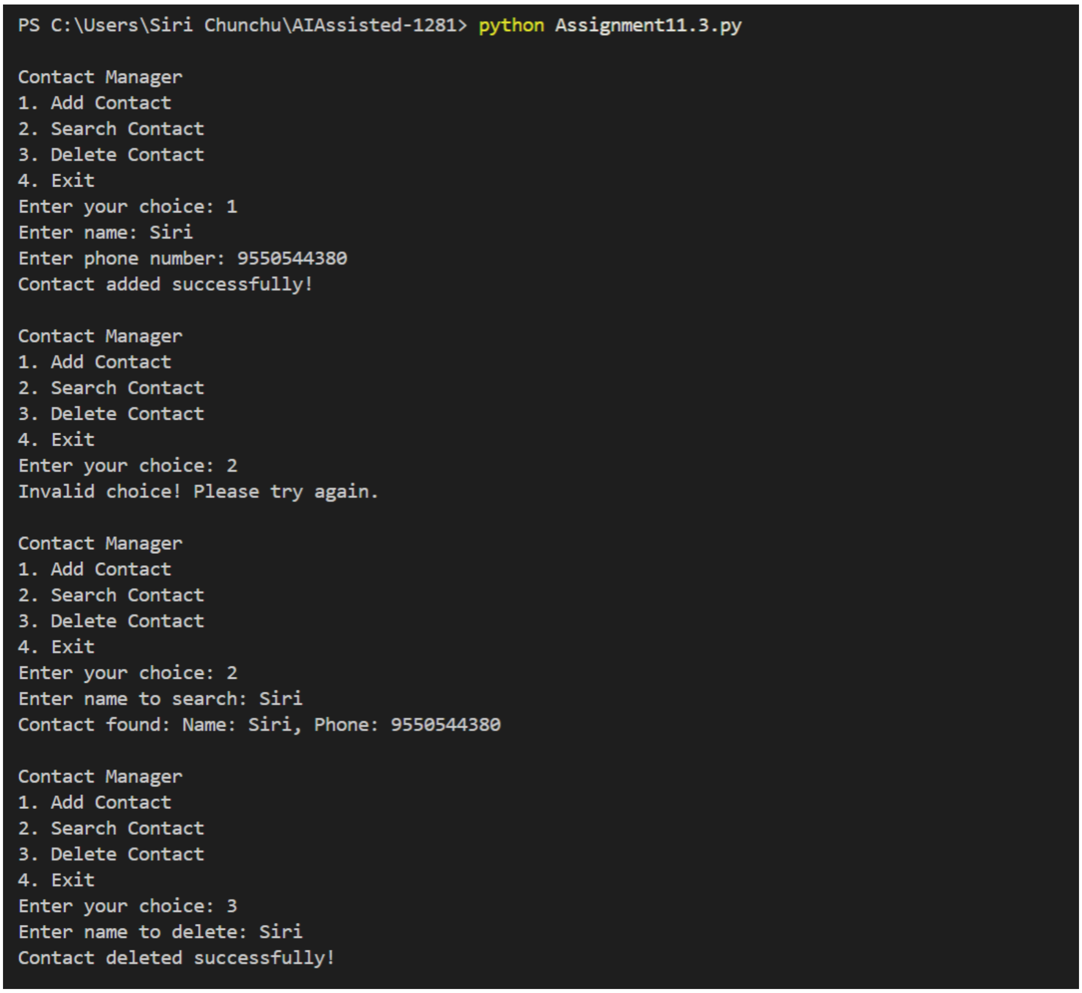
Use dynamic memory allocation and include proper comments explaining the logic.

1B. Linked List Implementation

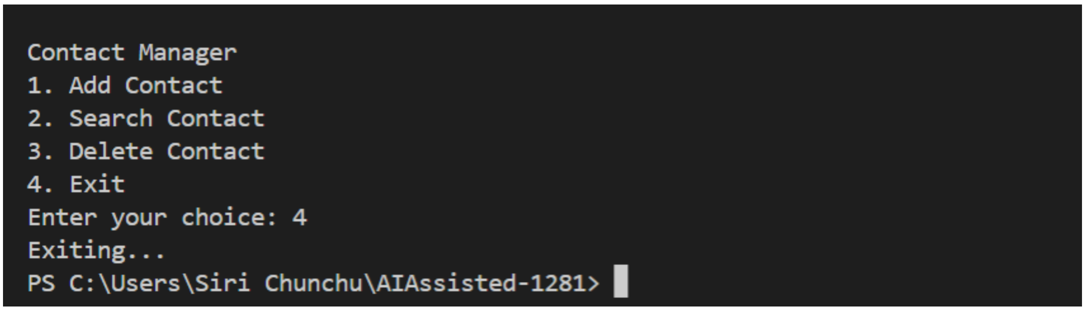
```
class Node:
    def __init__(self, name, phone):
        self.name = name
        self.phone = phone
        self.next = None

class ContactManagerLinkedList:
    def __init__(self):
        self.head = None

    def add_contact(self, name, phone):
        new_node = Node(name, phone)
        new_node.next = self.head
        self.head = new_node
        print("Contact added successfully!")
    def search_contact(self, name):
        current = self.head
        while current:
            if current.name == name:
                return {"name": current.name, "phone": current.phone}
            current = current.next
        return None

    def delete_contact(self, name):
        current = self.head
        prev = None

        while current:
            if current.name == name:
                if prev:
                    prev.next = current.next
                else:
                    self.head = current.next
                print("Contact deleted successfully!")
                return
            prev = current
            current = current.next

        print("Contact not found!")
# Example usage dynamic inputs
if __name__ == "__main__":
    contact_manager = ContactManagerLinkedList()

    while True:
        print("\nContact Manager")
        print("1. Add Contact")
        print("2. Search Contact")
        print("3. Delete Contact")
        print("4. Exit")

        choice = input("Enter your choice: ")

        if choice == '1':
            name = input("Enter name: ")
            phone = input("Enter phone number: ")
            contact_manager.add_contact(name, phone)
        elif choice == '2':
```

```
        name = input("Enter name to search: ")
        contact = contact_manager.search_contact(name)
        if contact:
            print(f"Contact found: Name: {contact['name']}, Phone: {contact['phone']}")
        else:
            print("Contact not found!")
    elif choice == '3':
        name = input("Enter name to delete: ")
        contact_manager.delete_contact(name)
    elif choice == '4':
        print("Exiting...")
        break
    else:
        print("Invalid choice! Please try again.")
```

Output:



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Exit
Enter your choice: 1
Enter name: Siri
Enter phone number: 9550544380
Contact added successfully!

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Exit
Enter your choice: 2
Invalid choice! Please try again.

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Exit
Enter your choice: 2
Enter name to search: Siri
Contact found: Name: Siri, Phone: 9550544380

Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Exit
Enter your choice: 3
Enter name to delete: Siri
Contact deleted successfully!
```



```
Contact Manager
1. Add Contact
2. Search Contact
3. Delete Contact
4. Exit
Enter your choice: 4
Exiting...
PS C:\Users\Siri Chunchu\AIAssisted-1281> 
```

Comparison: Array vs Linked List

Operation	Array	Linked List
Insertion	O(1) at end	O(1) at beginning
Search	O(n)	O(n)
Deletion	O(n) (shifting required)	O(n) (no shifting)
Memory	Fixed/Resizing	Dynamic

Explanation:

- Arrays are simple and fast for indexed access.
- Linked Lists are better for frequent insertions and deletions.
- For a dynamic contact manager, Linked List is more flexible.

Task 2: Library Book Search System (Queues & Priority Queues)

Scenario

The SRU Library manages book borrow requests. Students and faculty submit requests, but faculty requests must be prioritized over student requests.

Tasks

1. Implement a Queue (FIFO) to manage book requests.
2. Extend the system to a Priority Queue, prioritizing faculty requests.
3. Use GitHub Copilot to assist in generating:
   o enqueue() method
   o dequeue() method
4. Test the system with a mix of student and faculty requests.

Expected Outcome

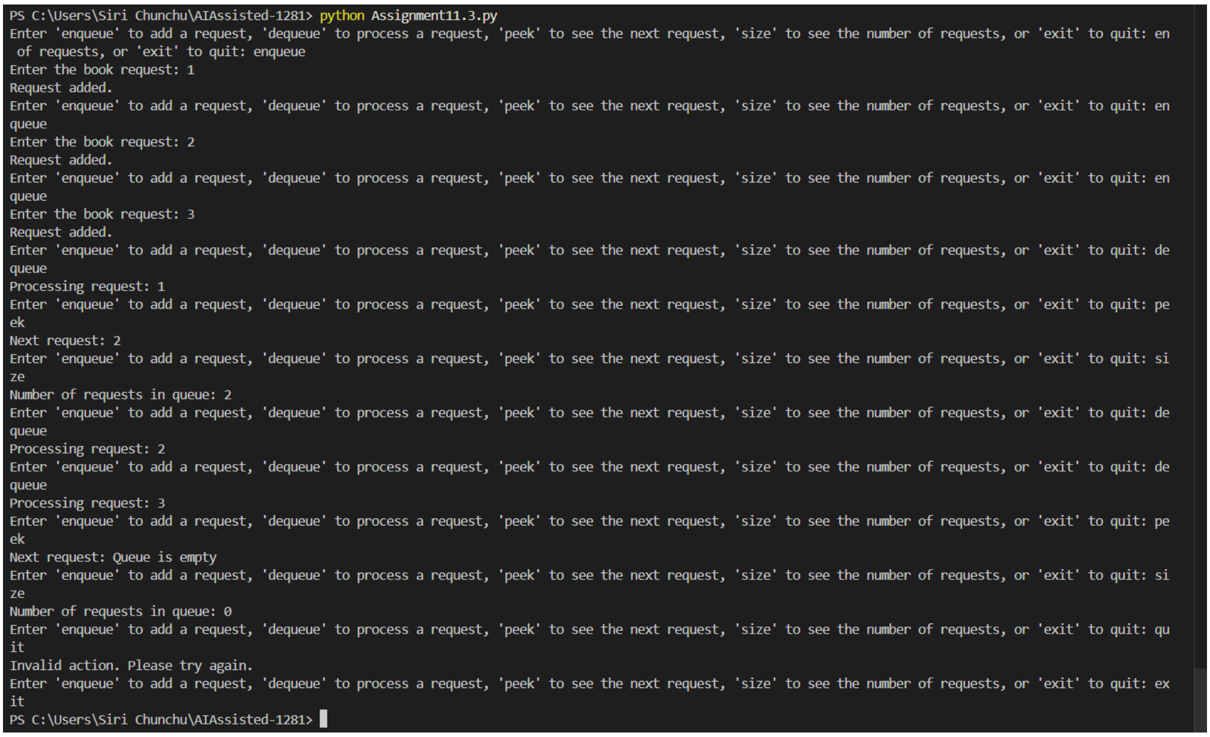
• Working queue and priority queue implementations.
• Correct prioritization of faculty requests.

Prompt: Create a Python program that implements a FIFO queue for managing library book requests.
Use collections.deque.
Include:
- enqueue(request)
- dequeue()
Simulate requests from students.
Add comments explaining the working.

2A. Simple Queue (FIFO)

```
from collections import deque

class BookQueue:
    def __init__(self):
        self.queue = deque()

    def enqueue(self, request):
        self.queue.append(request)
        print("Request added.")

    def dequeue(self):
        if self.queue:
            return self.queue.popleft()
        return "Queue is empty"
    def peek(self):
        if self.queue:
            return self.queue[0]
        return "Queue is empty"
    def is_empty(self):
        return len(self.queue) == 0
    def size(self):
        return len(self.queue)
# Example usage dyanamic inputs
book_queue = BookQueue()
while True:
    action = input("Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: ")

    if action == 'enqueue':
        request = input("Enter the book request: ")
        book_queue.enqueue(request)
    elif action == 'dequeue':
        print("Processing request:", book_queue.dequeue())
    elif action == 'peek':
        print("Next request:", book_queue.peek())
    elif action == 'size':
        print("Number of requests in queue:", book_queue.size())
    elif action == 'exit':
        break
    else:
        print("Invalid action. Please try again.")
```

Output:



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: en
 of requests, or 'exit' to quit: enqueue
Enter the book request: 1
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: en
queue
Enter the book request: 2
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: en
queue
Enter the book request: 3
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: de
queue
Processing request: 1
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: pe
ek
Next request: 2
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: si
ze
Number of requests in queue: 2
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: de
queue
Processing request: 2
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: de
queue
Processing request: 3
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: pe
ek
Next request: Queue is empty
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: si
ze
Number of requests in queue: 0
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: qu
it
Invalid action. Please try again.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'peek' to see the next request, 'size' to see the number of requests, or 'exit' to quit: ex
it
PS C:\Users\Siri Chunchu\AIAssisted-1281> 
```

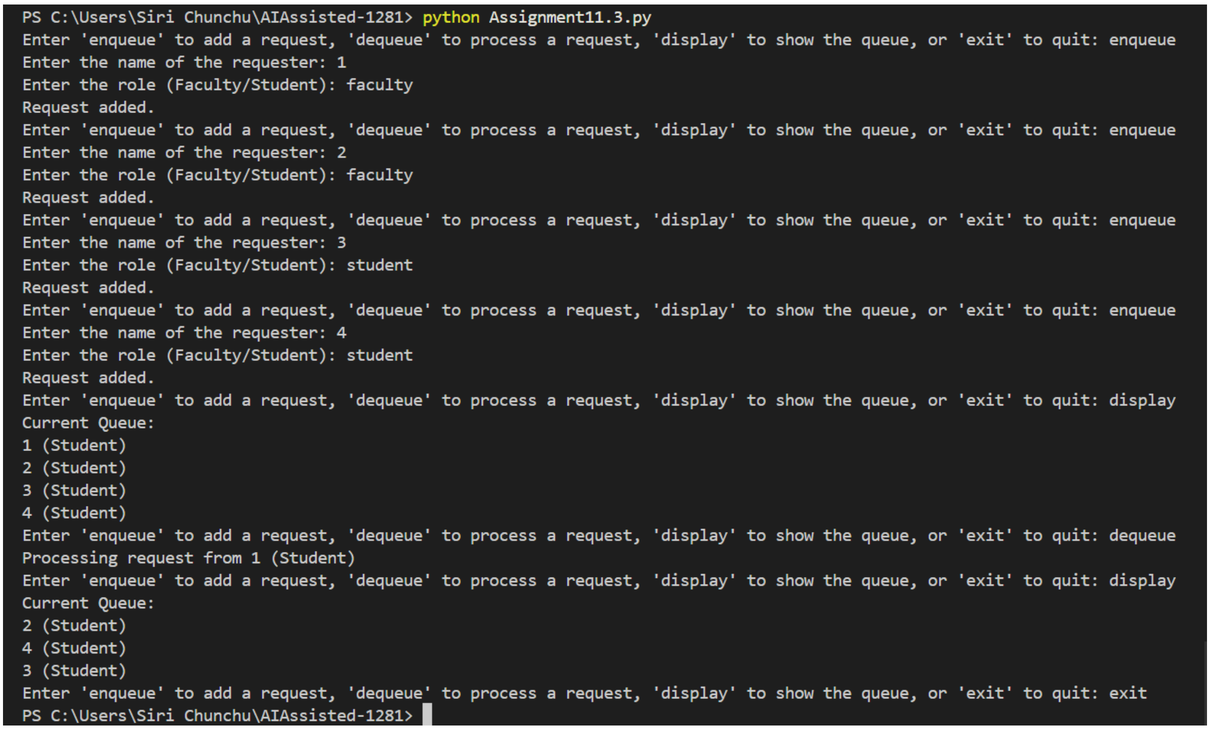
Prompt: Create a Python program to implement a priority queue for a library system.
Faculty requests must be served before student requests.
Use heapq module.
Include:
- enqueue(name, role)
- dequeue()

Test the system with mixed student and faculty requests.
Explain how priority is assigned.

2B. Priority Queue (Faculty Priority)

```
import heapq

class BookPriorityQueue:
    def __init__(self):
        self.queue = []

    def enqueue(self, name, role):
        priority = 0 if role == "Faculty" else 1
        heapq.heappush(self.queue, (priority, name))
        print("Request added.")

    def dequeue(self):
        if self.queue:
            return heapq.heappop(self.queue)
        return "Queue is empty"
    def display(self):
        if self.queue:
            print("Current Queue:")
            for priority, name in self.queue:
                role = "Faculty" if priority == 0 else "Student"
                print(f"{name} ({role})")
        else:
            print("Queue is empty")
# Example usage dynamic inputs
if __name__ == "__main__":
    pq = BookPriorityQueue()
    while True:
        action = input("Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: ")
        if action == "enqueue":
            name = input("Enter the name of the requester: ")
            role = input("Enter the role (Faculty/Student): ")
            pq.enqueue(name, role)
        elif action == "dequeue":
            result = pq.dequeue()
            if isinstance(result, tuple):
                print(f"Processing request from {result[1]} ({'Faculty' if result[0] == 0 else 'Student'})")
            else:
                print(result)
        elif action == "display":
            pq.display()
        elif action == "exit":
            break
        else:
            print("Invalid action. Please try again.")
```

Output:



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: enqueue
Enter the name of the requester: 1
Enter the role (Faculty/Student): faculty
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: enqueue
Enter the name of the requester: 2
Enter the role (Faculty/Student): faculty
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: enqueue
Enter the name of the requester: 3
Enter the role (Faculty/Student): student
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: enqueue
Enter the name of the requester: 4
Enter the role (Faculty/Student): student
Request added.
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: display
Current Queue:
1 (Student)
2 (Student)
3 (Student)
4 (Student)
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: dequeue
Processing request from 1 (Student)
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: display
Current Queue:
2 (Student)
4 (Student)
3 (Student)
Enter 'enqueue' to add a request, 'dequeue' to process a request, 'display' to show the queue, or 'exit' to quit: exit
PS C:\Users\Siri Chunchu\AIAssisted-1281>
```

Task 3: Emergency Help Desk (Stack Implementation)

Scenario

SR University’s IT Help Desk receives technical support tickets from students and staff. While tickets are received sequentially, issue escalation follows a Last-In, First-Out (LIFO) approach.

Tasks

1. Implement a Stack to manage support tickets.
2. Provide the following operations:
o push(ticket)
o pop()
o peek()
3. Simulate at least five tickets being raised and resolved.
4. Use GitHub Copilot to suggest additional stack operations such as:
o Checking whether the stack is empty
o Checking whether the stack is full (if applicable)

Expected Outcome

- Functional stack-based ticket management system.
- Clear demonstration of LIFO behavior.

Prompt: Generate a Python program to implement a stack for managing IT help desk tickets.
Include methods:
- push(ticket)
- pop()
- peek()
- is_empty()
- is_full()

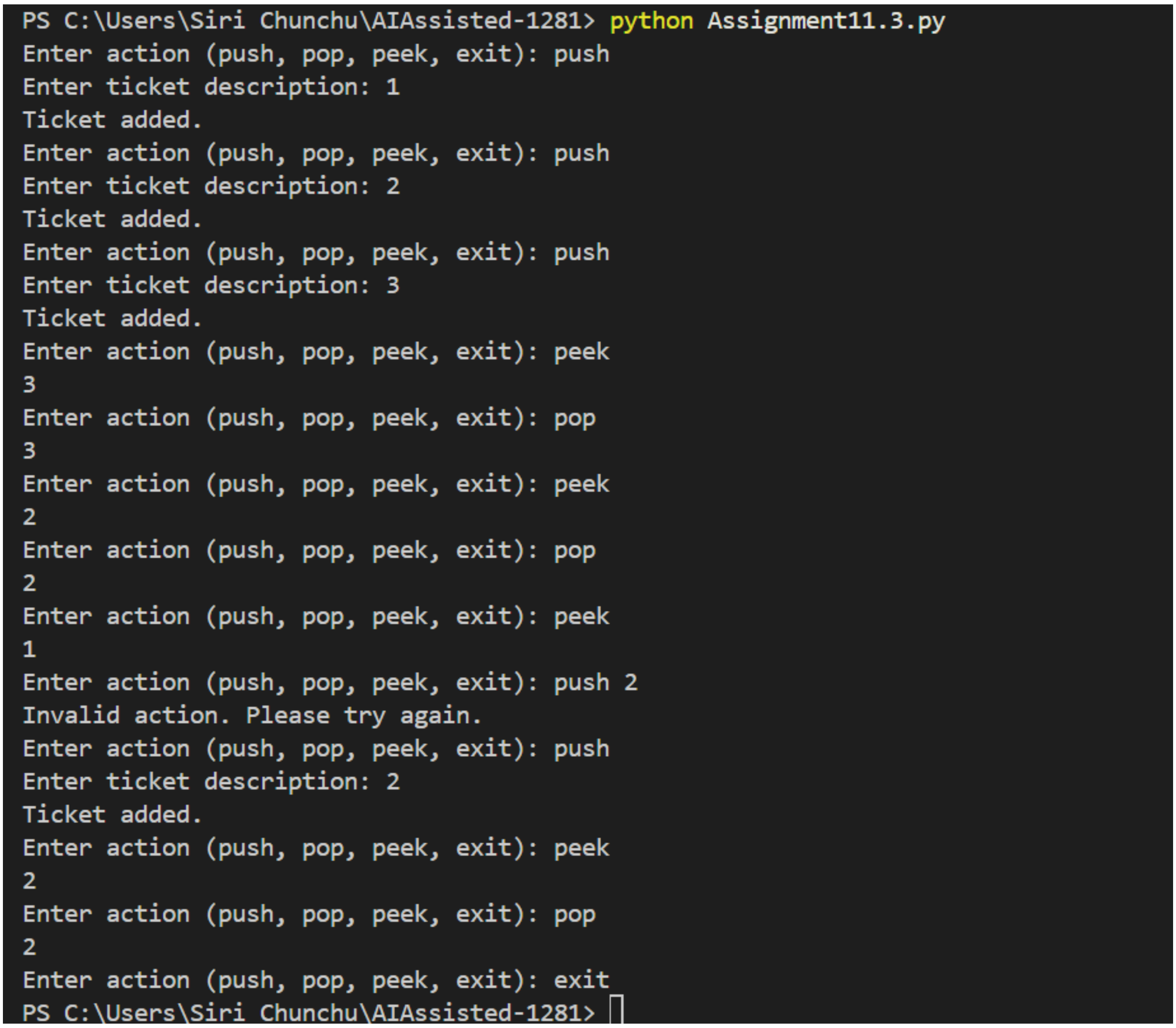
Simulate at least five support tickets and demonstrate LIFO behavior.

Add comments explaining stack operations.

Code:

```
class HelpDeskStack:
    def __init__(self):
        self.stack = []
        self.max_size = 5

    def push(self, ticket):
        if len(self.stack) == self.max_size:
            print("Stack is full!")
        else:
            self.stack.append(ticket)
            print("Ticket added.")

    def pop(self):
        if self.is_empty():
            return "No tickets to resolve."
        return self.stack.pop()

    def peek(self):
        if self.is_empty():
            return "No tickets available."
        return self.stack[-1]

    def is_empty(self):
        return len(self.stack) == 0

    def is_full(self):
        return len(self.stack) == self.max_size
# Example usage dynamic inputs
help_desk = HelpDeskStack()
while True:
    action = input("Enter action (push, pop, peek, exit): ")
    if action == "push":
        ticket = input("Enter ticket description: ")
        help_desk.push(ticket)
    elif action == "pop":
        print(help_desk.pop())
    elif action == "peek":
        print(help_desk.peek())
    elif action == "exit":
        break
    else:
        print("Invalid action. Please try again.")
```

Output:



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py
Enter action (push, pop, peek, exit): push
Enter ticket description: 1
Ticket added.
Enter action (push, pop, peek, exit): push
Enter ticket description: 2
Ticket added.
Enter action (push, pop, peek, exit): push
Enter ticket description: 3
Ticket added.
Enter action (push, pop, peek, exit): peek
3
Enter action (push, pop, peek, exit): pop
3
Enter action (push, pop, peek, exit): peek
2
Enter action (push, pop, peek, exit): pop
2
Enter action (push, pop, peek, exit): peek
1
Enter action (push, pop, peek, exit): push 2
Invalid action. Please try again.
Enter action (push, pop, peek, exit): push
Enter ticket description: 2
Ticket added.
Enter action (push, pop, peek, exit): peek
2
Enter action (push, pop, peek, exit): pop
2
Enter action (push, pop, peek, exit): exit
PS C:\Users\Siri Chunchu\AIAssisted-1281> 
```

LIFO Demonstration

The last ticket added ("Network Down") will be resolved first.

Task 4: Hash Table

Objective

To implement a Hash Table and understand collision handling.

Task Description

Use AI to generate a hash table with:

- Insert
- Search
- Delete

Starter Code

```
class HashTable:
pass
```

Expected Outcome

- Collision handling using chaining
- Well-commented methods

Prompt: Generate a Python class for implementing a Hash Table with collision handling using chaining.

Include:

- insert(key, value)
- search(key)
- delete(key)

Implement a simple hash function.

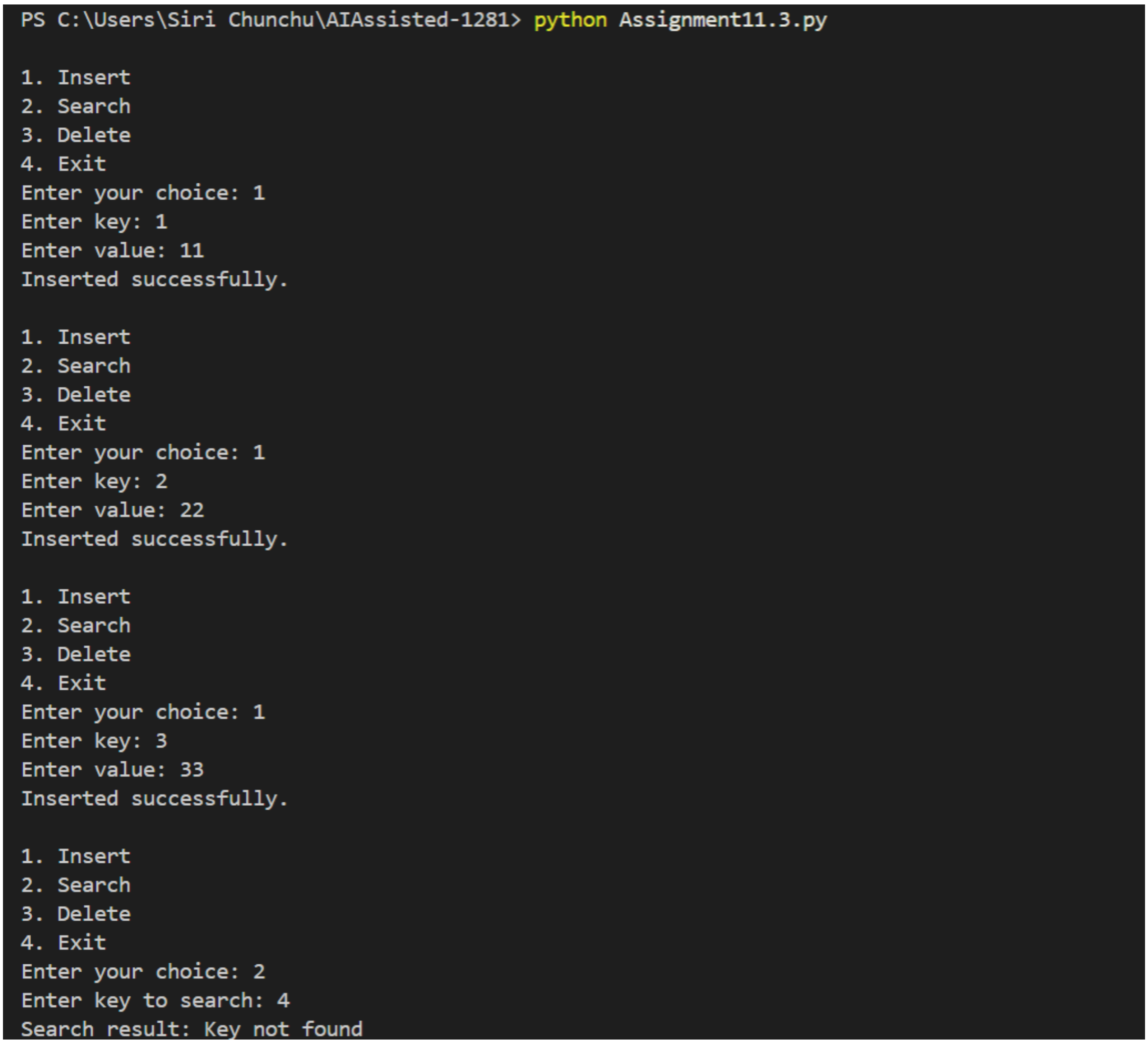
Add detailed comments explaining how collision handling works.

Provide example usage and test cases.

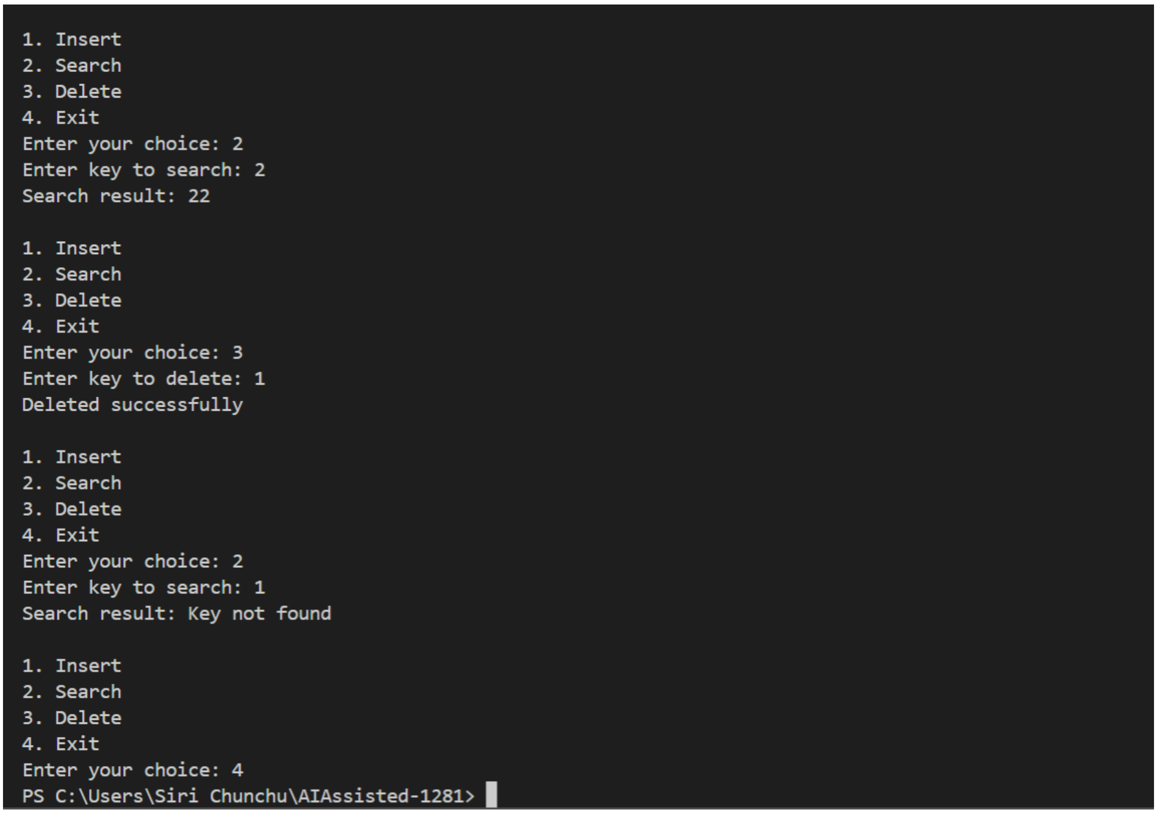
Code:

```
class HashTable:
    def __init__(self, size=10):
        self.size = size
        self.table = [[] for _ in range(size)]

    def hash_function(self, key):
        return hash(key) % self.size

    def insert(self, key, value):
        index = self.hash_function(key)
        self.table[index].append((key, value))
        print("Inserted successfully.")

    def search(self, key):
        index = self.hash_function(key)
        for k, v in self.table[index]:
            if k == key:
                return v
        return "Key not found"

    def delete(self, key):
        index = self.hash_function(key)
        for i, (k, v) in enumerate(self.table[index]):
            if k == key:
                del self.table[index][i]
                return "Deleted successfully"
        return "Key not found"
# Example usage dynamic inputs
hash_table = HashTable()
while True:
    print("\n1. Insert")
    print("2. Search")
    print("3. Delete")
    print("4. Exit")
    choice = input("Enter your choice: ")

    if choice == '1':
        key = input("Enter key: ")
        value = input("Enter value: ")
        hash_table.insert(key, value)
    elif choice == '2':
        key = input("Enter key to search: ")
        result = hash_table.search(key)
        print(f"Search result: {result}")
    elif choice == '3':
        key = input("Enter key to delete: ")
        result = hash_table.delete(key)
        print(result)
    elif choice == '4':
        break
    else:
        print("Invalid choice. Please try again.")
```

Output:



```
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 1
Enter key: 1
Enter value: 11
Inserted successfully.

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 1
Enter key: 2
Enter value: 22
Inserted successfully.

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 1
Enter key: 3
Enter value: 33
Inserted successfully.

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 2
Enter key to search: 4
Search result: Key not found
```



```
1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 2
Enter key to search: 2
Search result: 22

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 3
Enter key to delete: 1
Deleted successfully

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 2
Enter key to search: 1
Search result: Key not found

1. Insert
2. Search
3. Delete
4. Exit
Enter your choice: 4
PS C:\Users\Siri Chunchu\AIAssisted-1281> 
```

Task 5: Real-Time Application Challenge

Scenario

Design a Campus Resource Management System with the following features:

- Student Attendance Tracking
- Event Registration System
- Library Book Borrowing
- Bus Scheduling System
- Cafeteria Order Queue

Student Tasks

1. Choose the most appropriate data structure for each feature.
2. Justify your choice in 2–3 sentences.
3. Implement one selected feature using AI-assisted code generation.

Expected Outcome

- Mapping table: Feature → Data Structure → Justification
- One fully working Python implementation

Prompt: Suggest the most appropriate data structure for the following campus system features:

- Student Attendance Tracking
- Event Registration System
- Library Book Borrowing
- Bus Scheduling System
- Cafeteria Order Queue

Provide justification in 2-3 sentences for each selection.

Present the answer in table format.

Feature Mapping

Feature	Data Structure	Justification
Attendance Tracking	Hash Table	Fast lookup by student ID
Event Registration	Linked List	Dynamic registrations
Library Borrowing	Priority Queue	Faculty priority
Bus Scheduling	Queue	FIFO boarding
Cafeteria Orders	Queue	Orders processed in arrival order

Prompt: Generate a Python implementation for a Student Attendance Tracking system.

Use a suitable data structure for fast lookup.

Include:

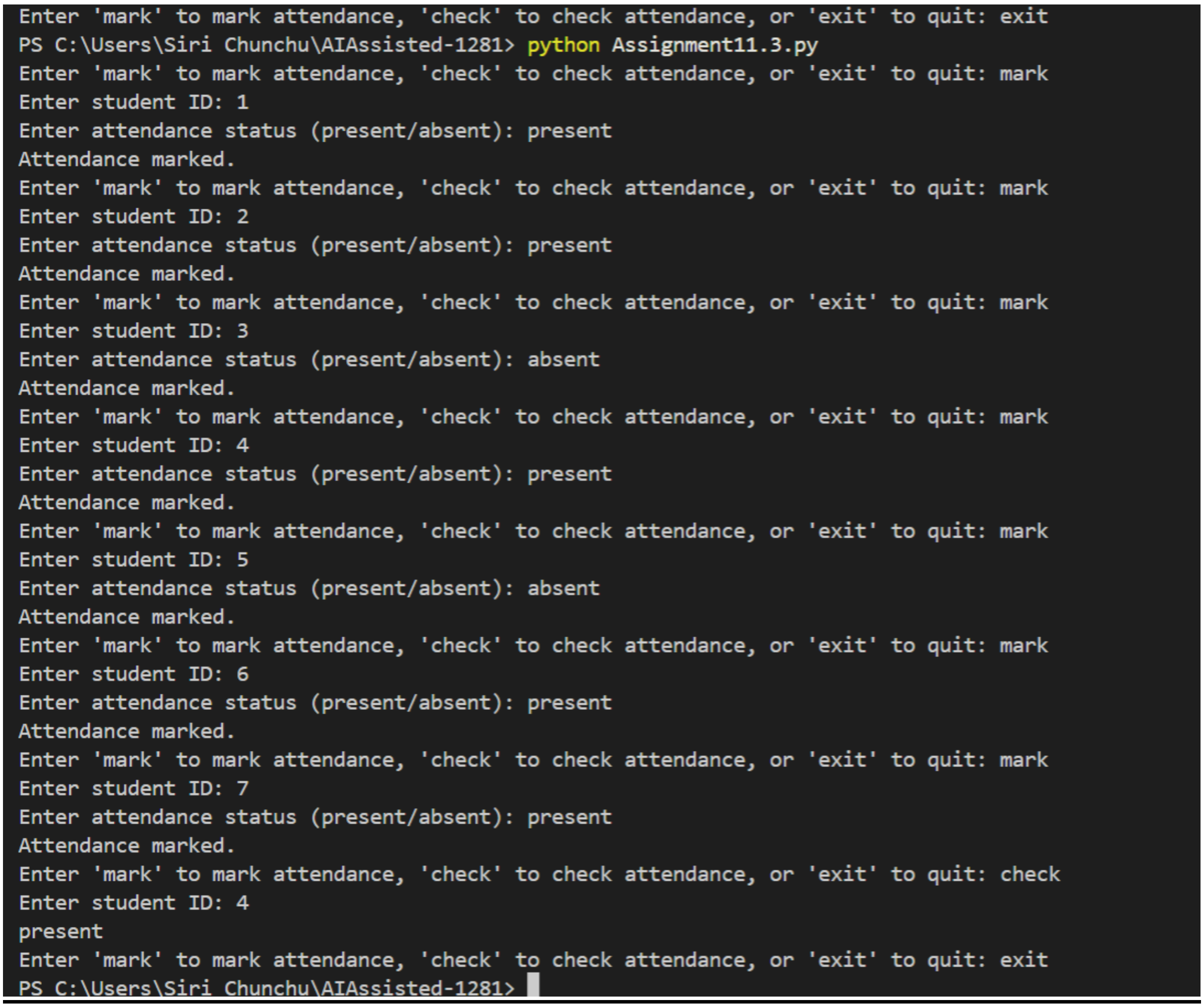
- mark_attendance(student_id, status)
- check_attendance(student_id)

Add comments and example test cases.

Code:

```
class AttendanceSystem:
    def __init__(self):
        self.records = {}
    def mark_attendance(self, student_id, status):
        self.records[student_id] = status
        print("Attendance marked.")

    def check_attendance(self, student_id):
        return self.records.get(student_id, "No record found")
# Example usage dynamic inputs
attendance_system = AttendanceSystem()
while True:
    action = input("Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: 
")
    if action == 'mark':
        student_id = input("Enter student ID: ")
        status = input("Enter attendance status (present/absent): ")
        attendance_system.mark_attendance(student_id, status)
    elif action == 'check':
        student_id = input("Enter student ID: ")
        print(attendance_system.check_attendance(student_id))
    elif action == 'exit':
        break
    else:
        print("Invalid action. Please try again.")
```

Output:



```
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: exit
PS C:\Users\Siri Chunchu\AIAssisted-1281> python Assignment11.3.py
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 1
Enter attendance status (present/absent): present
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 2
Enter attendance status (present/absent): present
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 3
Enter attendance status (present/absent): absent
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 4
Enter attendance status (present/absent): present
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 5
Enter attendance status (present/absent): absent
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 6
Enter attendance status (present/absent): present
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: mark
Enter student ID: 7
Enter attendance status (present/absent): present
Attendance marked.
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: check
Enter student ID: 4
present
Enter 'mark' to mark attendance, 'check' to check attendance, or 'exit' to quit: exit
PS C:\Users\Siri Chunchu\AIAssisted-1281>
```