

```

class Bus:

    def __init__(self, name, total_seats):

        self.name = name

        self.total_seats = total_seats

        self.available_seats = total_seats

        self.reserved_seats = []

    def reserve_seat(self, passenger_name, num_seats):

        if num_seats <= self.available_seats:

            self.reserved_seats.append((passenger_name, num_seats))

            self.available_seats -= num_seats

            print(f"{num_seats} seat(s) reserved for {passenger_name} on bus {self.name}.")

        else:

            print("Not enough available seats.")

    def display_seats(self):

        print(f"Available seats on bus {self.name}: {self.available_seats}/{self.total_seats}")

    def display_reserved_seats(self):

        print(f"Reserved seats on bus {self.name}:")

        for passenger, num_seats in self.reserved_seats:

            print(f"{passenger}: {num_seats} seat(s)")

class BusReservationSystem:

```

```
def __init__(self):
    self.buses = {}

def add_bus(self, bus_name, total_seats):
    if bus_name not in self.buses:
        self.buses[bus_name] = Bus(bus_name, total_seats)
        print(f"Bus {bus_name} added with {total_seats} seats.")
    else:
        print(f"Bus {bus_name} already exists.")

def reserve_seat(self, bus_name, passenger_name, num_seats):
    if bus_name in self.buses:
        self.buses[bus_name].reserve_seat(passenger_name, num_seats)
    else:
        print(f"Bus {bus_name} does not exist.")

def display_seats(self, bus_name):
    if bus_name in self.buses:
        self.buses[bus_name].display_seats()
    else:
        print(f"Bus {bus_name} does not exist.")

def display_reserved_seats(self, bus_name):
    if bus_name in self.buses:
        self.buses[bus_name].display_reserved_seats()
    else:
```

```
print(f"Bus {bus_name} does not exist.")
```

Example usage:

```
reservation_system = BusReservationSystem()
```

```
reservation_system.add_bus("Bus A", 50)
```

```
reservation_system.add_bus("Bus B", 40)
```

```
reservation_system.reserve_seat("Bus A", "John", 2)
```

```
reservation_system.reserve_seat("Bus A", "Alice", 3)
```

```
reservation_system.reserve_seat("Bus B", "Bob", 5)
```

```
reservation_system.display_seats("Bus A")
```

```
reservation_system.display_seats("Bus B")
```

```
reservation_system.display_reserved_seats("Bus A")
```

```
reservation_system.display_reserved_seats("Bus B")"
```

```
"Bus Bus A added with 50 seats.
```

```
Bus Bus B added with 40 seats.
```

```
2 seat(s) reserved for John on bus Bus A.
```

```
3 seat(s) reserved for Alice on bus Bus A.
```

```
5 seat(s) reserved for Bob on bus Bus B.
```

```
Available seats on bus Bus A: 45/50
```

```
Available seats on bus Bus B: 35/40
```

```
Reserved seats on bus Bus A:
```

John: 2 seat(s)

Alice: 3 seat(s)

Reserved seats on bus Bus B:

Bob: 5 seat(s)"