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- Course: ITT103

- Purpose: This Python program declares the number of seats for each class and initializes the seat counts for each class.

It then displays a menu with reservation options for First Class, Business Class, and Economy Class then proceeds with seat selection logic for all classes.

```
# Declare the number of seats for each class
```

```
FIRST_CLASS_SEATS = 27
```

```
BUSINESS_CLASS_SEATS = 38
```

```
ECONOMY_CLASS_SEATS = 56
```

```
# Initialize the seat counts for each class
```

```
seats = [[0] * FIRST_CLASS_SEATS, [0] * BUSINESS_CLASS_SEATS, [0] * ECONOMY_CLASS_SEATS]
```

```
def display_menu():
```

```
    # Declare arrays for each bus
```

```
    first_class_seats = [[0] * 9 for _ in range(3)]
```

```
    business_class_seats = [[0] * 19 for _ in range(2)]
```

```
    economy_seats = [[0] * 14 for _ in range(4)]
```

```
    # Display the menu
```

```
    print("UCC Signature Express Limited")
```

```
    print("YOUR JOURNEY BEGINS HERE")
```

```
    print("Reservation Options:")
```

```
    print("Please select an option:")
```

```
    print(" First Class (F/f)")
```

```
    print(" Business Class (B/b)")
```

```
    print(" Economy Class (E/e)")
```

```
    print(" Quit or Cancel (Q/q)")
```

```
# Proceed with seat selection logic for all classes
```

```
while True:
```

```
    choice = input("Enter your choice: ")
```

```
    if choice.lower() == "f":
```

```
        row_number = int(input("Enter row number (1-9): "))
```

```
        seat_type = input("Enter the seat type: Aisle (A/a), Window (W/w), or Cancel (C/c): ")
```

```
        if seats[0][row_number - 1] == 0:
```

```
            # Seat is available
```

```
            seats[0][row_number - 1] = 1
```

```
            print(f"Window seat in row {row_number} has been reserved.")
```

```
        else:
```

```
            # Seat is already reserved
```

```
            print(f"Sorry, the window seat in row {row_number} has already been reserved. Please choose another seat.")
```

```
    elif choice.lower() == "b":
```

```
        row_number = int(input("Enter row number (1-19): "))
```

```
        seat_type = input("Enter the seat type: Aisle (A/a), Window (W/w), or Cancel (C/c): ")
```

```
        if seats[1][row_number - 1] == 0:
```

```
            # Seat is available
```

```
            seats[1][row_number - 1] = 1
```

```
            print(f"Window seat in row {row_number} has been reserved.")
```

```

else:
    # Seat is already reserved
    print(f"Sorry, the window seat in row {row_number} has already been reserved. Please choose
another seat.")
elif choice.lower() == "e":
    row_number = int(input("Enter row number (1-14): "))
    seat_type = input("Enter the seat type: Aisle (A/a), Window (W/w), or Cancel (C/c): ")
    if seats[2][row_number - 1] == 0:
        # Seat is available
        seats[2][row_number - 1] = 1
        print(f"Window seat in row {row_number} has been reserved.")
    else:
        # Seat is already reserved
        print(f"Sorry, the window seat in row {row_number} has already been reserved. Please choose
another seat.")
elif choice.lower() == "q":
    break
else:
    print("Invalid choice. Please try again.")

# Call the display_menu function to start the reservation process
display_menu()

```