

Objectives:

- To display output on the console.
- To obtain input from the console using the **Scanner** class.
- To use variables to store data.
- To implement selection control using **if** statements.
- To implement selection control using **switch** statements.
- To write programs for executing statements repeatedly using loops.
- To write programs using methods.

Task: Flight Reservation System I

In this phase, you need to consider a small flight using the seat layouts shown in the figure. This flight contains 10 seats numbered (11, 12, 21, 22, ..., 51, and 52).

- Write a java program that keep displays a menu containing the following options:
 1. **Reserve a new empty seat.**
 2. **Delete a reserved seat.**
 3. **Delete all reserved seats.**
 4. **Print out number of reserved seats.**
 5. **Quit.**

The following is the details of each option:

- **Reserve a new empty seat:**
Implement this in a function as follow:
 - Ask user to enter a valid seat number.
 - If the entered seat number is not valid, ask him to re-enter it again.
 - Else (if entered seat number is valid), check if the entered seat is not reserved (empty).
 - If not empty, display a message that the seat is not empty and ask him to reenter a new seat number.
 - Else (entered seat is empty), mark it as reserved.



- **Delete a reserved seat:** Implement this in a function as follow:
 - Ask user to enter a valid seat number.
 - If the entered seat number is not valid, ask him to re-enter it again.
 - Else (if entered seat number is valid), check if the entered seat is reserved (not empty).
 - If empty, display a message that the seat is empty and ask him to re-enter a new seat number.
 - Else (entered seat is not empty), mark it as not reserved.
- **Delete all reserved seats:** Implement this in a function that do marks all the seats as not reserved.
- **Print out number of reserved seats:** Implement this in a function that returns the number of reserved seats.
- **Quit:** this will exit the execution.

Note: **you are not allowed** to use Arrays from chapter 7 and 8.

Good Luck!!!