

▮ ConcertTicketBot 2025 - Documentation

ConcertTicketBot 2025 is a C++ program designed to help users book concert tickets through the terminal. It collects user information, allows choosing a band and seat type, and stores ticket details in a file.

▮ Features

- Choose from a list of bands and seating types.
 - Input concert time and request refund option.
 - Generates a unique ticket ID.
 - Displays a summary of the ticket.
 - Saves ticket details to `tickets.txt`.
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▮ Program Flow

1. Display welcome banner.
 2. Loop while the user wants to book more tickets.
 3. Collect user inputs (name, band, seat, time, refund).
 4. Generate a ticket and display summary.
 5. Save ticket details to a file.
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▮ Key Components Explained

1. `toLower(string str)`

Converts a string to lowercase for input validation.

```
string toLower(string str) {  
    for (char& c : str)  
        c = tolower(c);  
    return str;  
}
```

▮ Used to make sure inputs like "YES" or "Yes" are treated as "yes".

2. `generateTicketID()`

Creates a unique ticket ID in the format `TKT1234`.

```
string generateTicketID() {  
    return "TKT" + to_string(rand() % 9000 + 1000);  
}
```

▮ Ensures every ticket has a unique identifier.

3. `getCurrentDateTime()`

Returns the current system date and time.

```
string getCurrentDateTime() {
    time_t now = time(0);
    char buf[30];
    strftime(buf, sizeof(buf), "%Y-%m-%d %H:%M:%S", localtime(&now));
    return string(buf);
}
```

▮ Used to timestamp when a ticket was booked.

4. saveTicketToFile(...)

Writes ticket details to a file called `tickets.txt` .

```
void saveTicketToFile(...) {
    ofstream file("tickets.txt", ios::app); // append mode
    ...
}
```

▮ Stores each ticket in a structured format for later review or record-keeping.

▮ Example Ticket Summary

```
+----- TICKET SUMMARY -----+
| Ticket ID   : TKT1234
| Name       : John Doe
| Band       : Rivermaya
| Seat Type  : VIP
| Concert Time : 7 PM
| Ticket Price : PHP1500.00
| Refund     : Not requested
+-----+
```

▮ File Output (tickets.txt)

Each ticket is saved in this format:

```
Ticket ID   : TKT1234
Name        : John Doe
Band        : Rivermaya
Seat Type   : VIP
Time        : 7 PM
Booked At   : 2025-04-13 18:42:01
Price       : PHP1500.00
Refund      : Not requested
-----
```

▮ Notes

The ticket price is fixed at PHP1500.00.

- Users can book multiple tickets in one session.
 - Input validation ensures only valid selections are accepted.
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