

**N.B.K.R Institute Of science and
technology**



FLIGHT BOARDING SYSTEM

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Introductoin

"We've all experienced the sometimes stressful process of boarding a flight, often involving long lines and a general rush to find our seats. Now we're going to explore a more organized and considerate approach known as a Flight Boarding Priority System. This system strategically assigns different boarding priorities to specific groups of passengers, such as senior citizens, families, and even solo travelers, aiming to create a smoother and more efficient experience for everyone involved."





OBJECTIVES

01.



Minimize boarding time and
Improve passenger satisfaction

02.

Enhance airport and airline
efficiency.improve transport efficiency

03.

Ensure fairness in the boarding
process and less time
manegement



ALGORITHM

Step 1: Categorize Passengers and Create Queues

* Action: Define distinct priority groups for boarding (e.g., First Class, Business, Frequent Flyers, Economy). For each priority group, create a separate queue data structure

Step 2: Assign Passengers to Their Respective Queues

* Action: As passengers become ready to board (e.g., during check-in or at the gate), determine their boarding priority. Enqueue each passenger into the corresponding priority queue based on this determination.

Step 3: Establish the Boarding Order

* Action: Determine the order in which the priority queues will be processed for boarding. This is typically from the highest priority group to the lowest (e.g., First Class first, then Business, and so on).

Step 4: Board Passengers Based on Priority

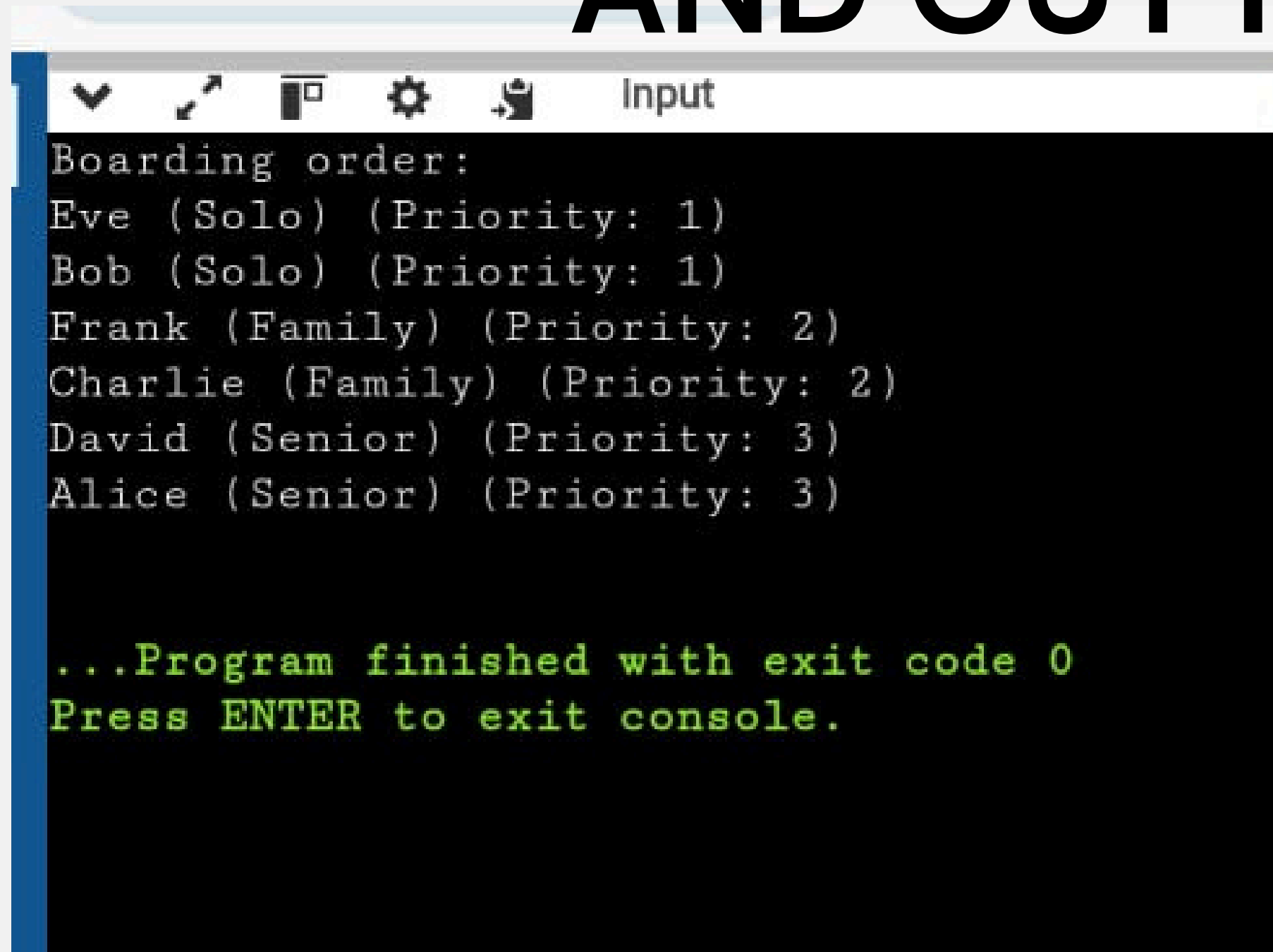
* Action: Iterate through the priority queues in the established boarding order (from Step 3). For each queue, process the passengers in a First-In, First-Out (FIFO) manner (by dequeuing them) until the current queue is empty.

Step 5: Repeat Until All Passengers Are Boarded

* Action: Continue processing each priority queue in the defined order until all queues are empty, indicating that all passengers have boarded the flight.



SOURCE CODE AND OUT PUT

A screenshot of a debugger window with a dark background. The title bar at the top shows a dropdown arrow, a zoom icon, a window icon, a settings gear, and a bug icon, followed by the text 'Input'. The main area displays the following text in a monospaced font: 'Boarding order:', 'Eve (Solo) (Priority: 1)', 'Bob (Solo) (Priority: 1)', 'Frank (Family) (Priority: 2)', 'Charlie (Family) (Priority: 2)', 'David (Senior) (Priority: 3)', and 'Alice (Senior) (Priority: 3)'. At the bottom, in green text, it says '...Program finished with exit code 0' and 'Press ENTER to exit console.'

```
Boarding order:
Eve (Solo) (Priority: 1)
Bob (Solo) (Priority: 1)
Frank (Family) (Priority: 2)
Charlie (Family) (Priority: 2)
David (Senior) (Priority: 3)
Alice (Senior) (Priority: 3)

...Program finished with exit code 0
Press ENTER to exit console.
```

<https://onlinegdb.com/dEXOnnQ>
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CONCLUSION

Implementing flight boarding priority offers a structured approach. Using a priority queue organizes boarding for a smoother flow. This system aims for a less stressful and potentially faster experience for a II.



The background is a light gray color, decorated with various hand-drawn blue doodles. These include several overlapping circles and loops at the top, a series of concentric arcs at the bottom left, a wavy line at the bottom center, and several checkmarks at the bottom right. There are also some abstract scribbles and lines scattered around the edges.

**Thank you
very much!**