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BS AI

Task no 01

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| Implement a Bounded Buffer with a Fixed Number of Items. Modify the above example code so that: 1. The producer only produces a fixed number of items, say 8, and then stops. 2. The consumer will consume these 8 items and then stop. |
| Code |
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Out put

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**Task no 02**

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| Implement Delays for the Producer and Consumer to Simulate Realistic Production and Consumption Rates. Add variable delays to the producer and consumer functions to simulate real-world scenarios where the producer may produce items faster or slower than the consumer can consume them, and vice versa. Observe how the buffer fills up and empties with different production and consumption rates. |
| **code** |
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**Out put**

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**Task no 03**

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| Task 3: Write a program that initiate two threads, producer and consumer. Producer should produce random numbers using rand( ) function between 0 and 10. It must block indefinitely if circular queue is full. Consumer thread will read numbers from queue and determine that each number is even or odd-number or not |
| **Output** |
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**Out put**

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