

```

#include <iostream>
using namespace std;

class SimpleBuffer {
    int buffer[10]; // Buffer size
    int in; // Index for producing
    int out; // Index for consuming
    int count; // Number of items in the buffer

public:
    SimpleBuffer() : in(0), out(0), count(0) {}

    void produce() {
        if (count < 10) { // Check if buffer is not full
            int data;
            cout << "Enter data to produce: ";
            cin >> data;
            buffer[in] = data; // Store data in the buffer
            in = (in + 1) % 10; // Circular increment
            count++;
            cout << "Produced: " << data << endl;
        } else {
            cout << "Buffer is full, cannot produce!" << endl;
        }
    }

    void consume() {
        if (count > 0) { // Check if buffer is not empty
            int data = buffer[out]; // Retrieve data from the buffer
            out = (out + 1) % 10; // Circular increment
            count--;
            cout << "Consumed: " << data << endl;
        } else {
            cout << "Buffer is empty, cannot consume!" << endl;
        }
    }
};

int main() {
    SimpleBuffer buffer;

```

```
int choice;

do {
    cout << "1. Produce\n2. Consume\n3. Exit\n";
    cout << "Enter your choice: ";
    cin >> choice;

    switch (choice) {
        case 1: buffer.produce(); break;
        case 2: buffer.consume(); break;
        case 3: cout << "Exiting..." << endl; break;
        default: cout << "Invalid choice!" << endl; break;
    }
} while (choice != 3);

return 0;
}
```