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Aim : Implement Queue (FIFO) data structure

Operations : Insert, Delete, traversal

Queue.cpp

```
#include <iostream>
```

```
#include <queue>
```

```
class MyQueue {
```

```
private:
```

```
std::queue<int> q;
```

```
public:
```

```
void insert(int value) {
```

```
q.push(value);
```

```
}
```

```
void remove() {
```

```
if (!q.empty()) {
```

```
q.pop();
```

```
}
```

```
}
```

```
void traverse() {
```

```
std::queue<int> temp = q;
```

```
while (!temp.empty()) {
```

```
std::cout << temp.front() << " ";
```

```
temp.pop();
}
std::cout << std::endl;
}
bool isEmpty() {
return q.empty();
}

int size() {
return q.size();
}
};

int main() {
MyQueue myQueue;
std::cout<<"Insert elements in Queue:";
int n;
std::cin>>n;
myQueue.insert(n);
int m;
std::cin>>m;
myQueue.insert(m);
int p;
std::cin>>p;
myQueue.insert(p);
int q;
std::cin>>q;
```

```

myQueue.insert(q);
myQueue.size();

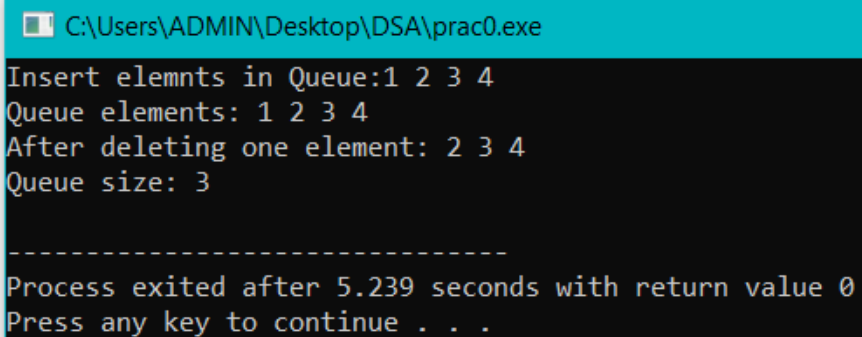
std::cout << "Queue elements: ";
myQueue.traverse();
myQueue.size();
myQueue.remove();

std::cout << "After deleting one element: ";
myQueue.traverse();

if (myQueue.isEmpty()) {
std::cout << "The queue is empty." << std::endl;
} else {
std::cout << "Queue size: " << myQueue.size() << std::endl;
}
return 0;
}

```

OUTPUT :



```

C:\Users\ADMIN\Desktop\DSA\prac0.exe
Insert elemnts in Queue:1 2 3 4
Queue elements: 1 2 3 4
After deleting one element: 2 3 4
Queue size: 3
-----
Process exited after 5.239 seconds with return value 0
Press any key to continue . . .

```

