Name : Snehal Jayprakash Borji

Class : FYMCA / BATCH_A

UID_NO: 2023510008

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 :