

```

/* Below program is written in C++ language */

#include<iostream>

using namespace std;

#define SIZE 10

class Queue
{
    int a[SIZE];
    int rear;    //same as tail
    int front;   //same as head

    public:
    Queue()
    {
        rear = front = -1;
    }

    //declaring enqueue, dequeue and display functions
    void enqueue(int x);
    int dequeue();
    void display();
};

// function enqueue - to add data to queue
void Queue :: enqueue(int x)
{
    if(front == -1) {
        front++;
    }
    if( rear == SIZE-1)
    {
        cout << "Queue is full";
    }
}

```

```

        else
        {
            a[++rear] = x;
        }
    }

// function dequeue - to remove data from queue
int Queue :: dequeue()
{
    return a[++front]; // following approach [B], explained above
}

// function to display the queue elements
void Queue :: display()
{
    int i;
    for( i = front; i <= rear; i++)
    {
        cout << a[i] << endl;
    }
}

// the main function
int main()
{
    Queue q;
    q.enqueue(10);
    q.enqueue(100);
    q.enqueue(1000);
    q.enqueue(1001);
    q.enqueue(1002);
    q.dequeue();
    q.enqueue(1003);
    q.dequeue();
    q.dequeue();
    q.enqueue(1004);
}

```

```
q.display();  
  
return 0;  
}
```