4/11/25

Linear Queue.

```
#define N 5
int front = -1, rear = -1;
void enqueue(int x){
  if (rear == N-1){
    printf("Overflow");
  }else if (front == -1 && rear == -1){
    front = rear = 0;
    queue[rear] = x;
  }else{ queue[rear] = x;
         rear++;
  }}
void dequeue(){
  if (front == -1 && rear == -1){
  printf("Underflow");
  }else if (front == rear){
    front = rear = -1
  }else{
  printf("The dequeue element is %d", item);
    item = queue[front];
    front++;
  }}
void display(){
  if (front == -1 && rear == -1){
    printf("Underflow");
  }else{
    for(int i=0; i<N; i++){
      printf("%d", queue[i]);
    }
}
```

Output

1. Enter your choice : 1. enqueue 2. dequeue 3. display 4. exit

1

Enter Value : 2

2 Inserted

Enter your choice : 1. enqueue 2. dequeue 3. display 4. exit

2

Deleted element : 2

Enter your choice : 1. enque 2. dequeue 3. display 4. exit

3

Underflow of queue.

Enter your choice : 1. enqueue 2. dequeue 3. display 4. exit

4

Exiting.

Enter your choice : 1. enqueue 2. dequeue 3. display 4. exit

6

Invalid choice.