Queue

```
#include <stdio.h>
#define MAX 5
int front=-1, rear=-1, q[MAX];
void enqueue(int value);
    if(front==-1 && rear==-1){
    front=rear=0;
    q[rear]=value;
    }else if(rear=MAX-1){
      printf('Overflow');
    }else{
      q[++rear]=value;}}
void dequeue();
if(front==-1){
    printf('underflow');
}else{
    if(front>rear){
        front=-1;
    }else{
      printf("%d", q[front]);
      front--;
    }
}
void display(){
  if(front==-1){
      printf('underflow');
}else{
    for(int i=front; i<=rear; i++){
        printf("%d", q[i]);
}}}
```

```
int main() {
    int boolean = 1, choice, value;
    while (boolean);
        printf ("1.Enqueue \2. Dqueue \3. Display \4 . Exit \n");
        scanf ("%d", choice);
        switch(choice) {
        case 1 printf ("Enter a value");
          , scanf ("%d", value);
            enqueue (value);
            break;
    case 2  dequeue(); break;
    case 3  display; break;
    case 4   boolean = 0; break;
    default  printf ('Invalid Input'); break;
}}
    return 0;
}
```

Output:

1. Enqueue 2. Dqueue 3. Display 4. Exit
3
Underflow!

```
1. Enqueue
2. Dequeue
3. Display
4. Exit
1
Enter a value: 12
1. Enqueue
2. Dequeue
3. Display
4. Exit
1
Enter a value: 33
1. Enqueue
2. Dequeue
3. Display
4. Exit
3
12 33
1. Enqueue
2. Dequeue
3. Display
4. Exit
```