

Animal Shelter

3 functions to implement \rightarrow enqueue, dequeue any, dequeue cat, dequeue dog.

What we can do, we can create a Linked list of pair with string ("dog" or "cat") and the arrival time.

enqueue, cat



dequeue any \rightarrow easy

dequeue dog \rightarrow Search for first dog and then remove it with the help of a pointer which will search in next of every node

similar of cat

\rightarrow we can also keep two separate linked list for dog and cat & remove which one has greater arrival time and remove the first in their special cats

function Pairs
1 \rightarrow 3 \rightarrow 5 \rightarrow 6

0 \rightarrow 2 \rightarrow 7 \rightarrow ...

✓ \rightarrow This approach is better