

DESIGN

//format of node in linked list

```
struct node{
    char u_name[];
    int priority;
    struct node * next;
};
```

//format of link list

```
struct List{
    node * head;
};
```

```
CreateNode(){
    using malloc create a node and return its address.
}
```

```
addPassenger(Linked list L, newnode){
    if L->head==NULL:
        L->head=newnode
    else if(L->head->priority < newnode->priority)
        make newnode to point to L->head->next;
        make L->head point to new node;
    else
        declare pointers prev , curr;
        make them both point to first node of list;
        while(curr is not null and curr->priority <= newnode->priority){
            prev=curr;
            curr=curr->next;
        }
        newnode->next=prev->next
        prev->next=newnode
}
```

```
displayReq(Link list L){
    if L->head==NULL
        print -1
    else
        pointer curr=L->head;
        while(curr is not NULL){
            print curr->u_name and curr->priority
            curr=curr->next
        }
}
```

```

    }
}

findPriority(Link List L){
    if L->head==NULL
        print -1
        return NULL
    else
        return L->head
}

updatePriority(Link List L, char name[], int np){
    if(L is empty)
        print -1
        return

    pointer curr=first node of list
    if strcmp(curr->u_name, name)==0:
        curr->priority=np
        L->head=curr->next
        addPassenger(L,curr)
        return

    else
        declare pointer prev and curr
        curr=L->head
        while(curr is not NULL)
            if strcmp(curr->u_name, name)==0:
                prev->next=curr->next
                curr->next=NULL
                curr->priority=np
                addPassenger(curr)
                return //escape from this function as we have found the node
            else
                prev=curr
                curr=curr->next
        printf(N) //if it reached till here means no matching node found
}

bookTicket(Link list L){
    if(L->head==NULL)
        print -1

    else

```

```

        print L->head->u_name and L->head->priority
        L->head=L->head->next
    }

main(){

    struct Link List L;

    while(True):
        switch(ch):

            if ch=='s':
                break
            else if ch=='a':
                newnode=CreateNode()
                newnode->u_name=input from user
                newnode->priority=input from user
                addPassenger(L,newnode)
            else if ch=='d':
                displayReq(L)
            else if ch=='b':
                bookTicket(L)
            else if ch=='f':
                if L->head==NULL
                    print -1
                else
                    print L->head->u_name and L->head->priority
            else if ch=='u':
                take name and np as input from user
                updatePriorty(L,name,np)
    }

```