

`/*quque using linked list*/`

`#include<stdio.h>`

`#include<stdlib.h>`

`struct node`

`{`

`int data;`

`struct node*next;`

`};`

`struct node*front;`

`struct node*rear;`

`void insert();`

`void delete1();`

`void display();`

`int main()`

`{`

`int ch=0;`

`while(ch!=4)`

`{`

`printf("***main menu***\n");`

`printf("\n1.insert an element\n2.Delete an element\n3.Display the queue\n4.Exit\n");`

`printf("\nEnter your choice ?");`

`scanf("%d",&ch);`

`switch(ch)`

`{`

`case 1:`

`insert();`

`break;`

`case 2:`

`delete1();`

`break;`

`case 3:`

```

display();

break;

case 4:

exit(0);

break;

default:

printf("\nEnter valid choice??\n");

}

}

}

void insert()

{

struct node *ptr;

int item;


ptr = (struct node *) malloc (sizeof(struct node));

if(ptr == NULL)

{

printf("\nOVERFLOW\n");

return;

}

else

{

printf("\nEnter value?\n");

scanf("%d",&item);

ptr -> data = item;

if(front == NULL)

{

front = ptr;

rear = ptr;

front -> next = NULL;

```

```

rear -> next = NULL;
}
else
{
rear -> next = ptr;
rear = ptr;
rear->next = NULL;
}
}
}
void delete1 ()
{
struct node *ptr;
if(front == NULL)
{
printf("\nUNDERFLOW\n");
return;
}
else
{
ptr = front;
front = front -> next;
free(ptr);
}
}
void display()
{
struct node *ptr;
ptr = front;
if(front == NULL)
{

```

```
printf("\nEmpty queue\n");  
}  
else  
{ printf("\nprinting values ..... \n");  
while(ptr != NULL)  
{  
printf("\n%d\n",ptr -> data);  
ptr = ptr -> next;  
}  
}  
}
```

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem(dada)\queue using ll.exe
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?1
Enter value?
10
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?1
Enter value?
20
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?1
Enter value?
30
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?1
Enter value?
40
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?1
Enter value?
40
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?3
printing values .....
10
20
30
40
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?2
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?3
printing values .....
20
30
```

```
C:\Users\HP\OneDrive\Desktop\collage work 3rd sem(dada)\queue using ll.exe
20
30
40
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?2
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?3
printing values .....
20
30
40
***main menu***
1.Insert an element
2.Delete an element
3.Display the queue
4.Exit
Enter your choice ?4
-----
Process exited after 52.86 seconds with return value 0
Press any key to continue . . .
```