#include<stdio.h>

struct Node

{

int data;

int priority;

struct Node \*next;

};

int main()

{

struct Node \*front=NULL,\*rear=NULL,\*temp,\*neww;

int choice,ele,prior;

do

{

printf("1.Insertion 2.Deletion 3.DIsplay");

scanf("%d",&choice);

switch(choice)

{

case 1:

printf("Enter the data:");

scanf("%d",&ele);

printf("Enter the priority:");

scanf("%d",&prior);

neww=(struct Node\*)malloc(sizeof(struct Node));

neww->data=ele;

neww->priority=prior;

neww->next=NULL;

if(front==NULL)

{

front = neww;

rear = front;

}

else{

if(neww->priority<front->priority)

{

neww->next=front;

front = neww;

}

else if(neww->priority >rear->priority)

{

rear->next = neww;

rear = neww;

}

else{

temp=front;

while(temp->next!=NULL)

{

if(neww->priority>temp->priority && neww->priority<temp->next->priority)

{

neww->next = temp->next;

temp->next = neww;

break;

}

temp =temp->next;

}

}

}

break;

case 2:

if(front==NULL)

printf("Queue is empty0");

else

{

temp=front;

front = front->next;

free(temp);

}

break;

case 3:

if(front==NULL)

printf("QUeue is empty");

else{

temp=front;

while(temp!=NULL)

{

printf("[%d %d] ->",temp->data,temp->priority);

temp=temp->next;

}

}

break;

}

}while(choice<=3);

return 0;

}