

Program : Priority Queue



```
#include <stdio.h>

void arrange(int x[ ],int n)
{
int i,t,pos,p;
for(i=1;i<n;i++)
{
    pos=i;
    do{
        p=(pos-1)/2;

        if(pos==0||x[p]>=x[pos]) break;

        t=x[pos];
        x[pos]=x[p];
        x[p]=t;

        pos=p;
    }while(1);
}
}

print(int x[ ],int n)
{
    int i;
    for(i=0;i<n;i++)
        printf("%d\t",x[i]);

    printf("\n");
}
```



```
void main( )
{
    int choice, n=0,x[100],data;
    do{
        printf("\n\n");
        printf("1. Add data\n");
        printf("2. Remove Data\n");
        printf("3. Exit\n");
        printf("Enter choice");
        scanf("%d",&choice);

        if(choice==1)
        {
            scanf("%d",&data);
            if(n==100) printf("Queue Full\n");
            else
            {
                n=n+1;
                x[n-1]=data;
                arrange(x,n);
                print(x,n);
            }
        }

        if(choice==2)
        {
            if(n==0) printf("No data in Queue\n");
            else
            {
                data=x[0];
                printf("removed data %d\n",data);
                x[0]=x[n-1];
                n=n-1;
                arrange(x,n);
                print(x,n);
            }
        }
    }while (choice!=3);
}
```