

Descending Priority Queue:-

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#define SIZE 3
```

```
int Pq[SIZE];
```

```
int count = 0;
```

```
int flag = 0;
```

```
void insert_rear (int Pr)
```

```
{
```

```
    int i = 0;
```

```
    if (count == SIZE)
```

```
    {
```

```
        printf("Queue overflow\n");
```

```
        return;
```

```
    }
```

```
    if (count == 0)
```

```
    {
```

```
        Pq[count++] = Pr;
```

```
    }
```

```
    else
```

```
    {
```

```
        for (i = count - 1; i >= 0; i--)
```

```
        {
```

```
            if (Pr > Pq[i])
```

```
            {
```

```
                Pq[i+1] = Pq[i];
```

```
            }
```

```
            else
```

```
                break;
```

```
        }
```



```
    Pq[i+1]=Pq;
```

```
    count++;
```

```
}
```

```
int Remove_Big()
```

```
{
```

```
    return Pq[flag++];
```

```
}
```

```
void display()
```

```
{
```

```
    int i;
```

```
    if (count==0)
```

```
{
```

```
        printf("Queue is empty\n");
```

```
        return;
```

```
}
```

```
    printf("Contents of the Queue:\n");
```

```
    for (i=flag; i<count; i++)
```

```
{
```

```
        printf("%d\n", Pq[i]);
```

```
}
```

```
}
```

```
int main()
```

```
{
```

```
    int choice, item;
```

```
    for(;;)
```

```
{
```

```
        printf("\n 1: Insert - Rear 2: Remove - Big  
        3: Display 4: Exit\n");
```



```
printf("Enter the choice : \n");
scanf("%d", &choice);
switch(choice)
{
    case 1: printf("Enter the item to be inserted : \n");
            scanf("%d", &item);
            insert_rear(item);
            break;
    case 2 : item = Remove_Big();
            if (item == -1)
                printf("Queue is Empty \n");
            else
                printf("Item Deleted = %d \n", item);
            break;
    case 3 : display();
            break;
    default : exit(0);
}
}
}
```