

Develop the C application having the following requirements regarding some hotel bookings.

1. Define the structure **Booking** having the following fields: booking number (**unsigned int**), hotel (**char\***), number of booked rooms (**unsigned char**), guest name (**char\***), price (**float**), paid (**char**) with two possible values: 'Y' or 'N'.

Create a simple list containing data of 5 bookings at least.

2. Write the C function returns the number of rooms booked by a certain guest provided into the parameter list for the bookings stored by the above simple list. The function must be called by the function **main()**, and the function result is printed out into console application. **(0,5 p)**
3. Write the C function deletes the simple list nodes from the above list having the field **paid** on value 'Y'. The function must be called by the function **main()**, and the simple list is printed out into console application after node deletions. **(0,5 p)**
4. Write the C function copies above list data into a separate simple list the pairs (**hotel, number of booked rooms**) for a certain guest provided into the parameter list. The function must be called by the function **main()**, and the list of pairs is printed out into console application. **(1,0 p)**