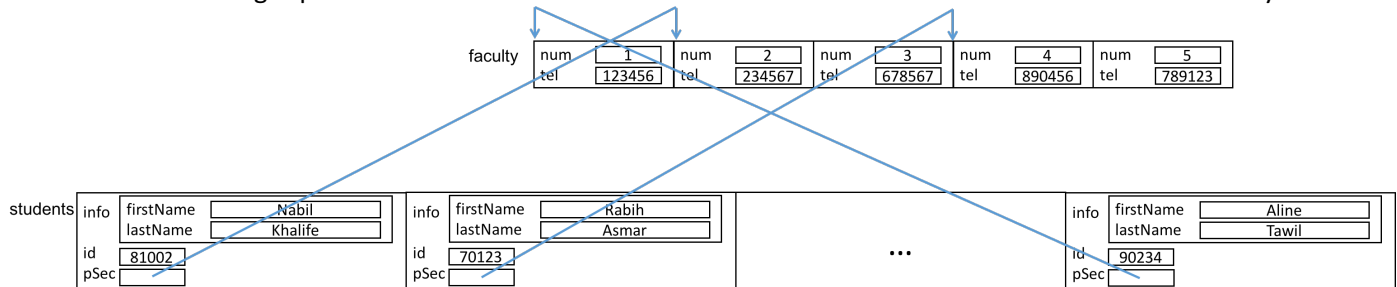


### Exercise I (11 points)

Consider the following representation to model student enrollments in the different sections of the Faculty:



1. Define a structure type **Info** containing two fields: firstName and lastName.
2. Define a structure type **Section** containing two fields: num (int) and tel (int).
3. Define a structure type **Student** containing three fields: info (Info), id (int) and a pointer of base type Section.
4. Write the function "find", which, given a section number, a student first and last names, and array of students, returns the number of students enrolled in this section having this full name.
5. Write the function "transfer" which, given the array of sections, an array of students, a student id, and a section number, changes the data of the corresponding student so that he is enrolled to the section which number is given. Note that the num field of the section instance can not be changed because there would be other students enrolled in this section who do not want to undergo a transfer.

### Exercise II (7 points)

Write the **recursive** function "printRWords" which, given a string, outputs the words in reverse order. Example: given string: I am writing an email → function outputs on the screen: email an writing am I

### Exercise III (4 points)

Draw the memory state of the following program.

```

void m(int *t, int *pt[]){
    *pt[-1]=*t*2;
}
void f(int *a, int *pa[]){
    *pa=a+1;
    m(a+2, pa-1);
}
void main(){
    int t[]={1,3,5,7,9,8,6,4}, * pt[8], i;
    for(i=0; i<8; i++)
        *(pt+i)=t+(i+5)%8;
    f(t+1, pt+3);
}

```