

Problem 1 (4 points). Given the following class:

```
public class Contact {  
    String name;  
    String email;  
}
```

Note: It is recommended to read every paragraph in this exercise before start.

Answer the following:

- a) (0.5 points) Implement a **linear structure**, Agenda, storing all contacts in a contact list. In this section, you ONLY have to write headers for classes, attributes and constructors (if you consider them adequate) needed to implement a linear structure. **Explain the election of the type of linear structure you have chosen to implement your solution.**

b) Code the following methods:

- i. (1.5 points) Insert in alphabetical order (ascending). This method gets a name and an email at the input and stores them as a contact in the contact list according to an alphabetical order for the name attribute. Duplicates are not allowed.

- ii. (1.5 points) Show contact list contents in alphabetical order. This method takes a char parameter and, according to this parameter, shows contacts in ascending ('A') or descending ('D') order.