We want to write a program that manages contacts using the following UML diagram:

```
┌─────────────────────────────────────┐
│              Contact                 │
├─────────────────────────────────────┤
│ - name : String                     │
│ - number : String                   │
│ - email : String                    │
│ - address : String                  │
│ - count : int                       │
├─────────────────────────────────────┤
│ + Contact(String, String, String,   │
│           String)                    │
│ + setEmail(String) : void           │
│ + getCount() : int                   │
│ + toString() : String               │
└─────────────────────────────────────┘
```
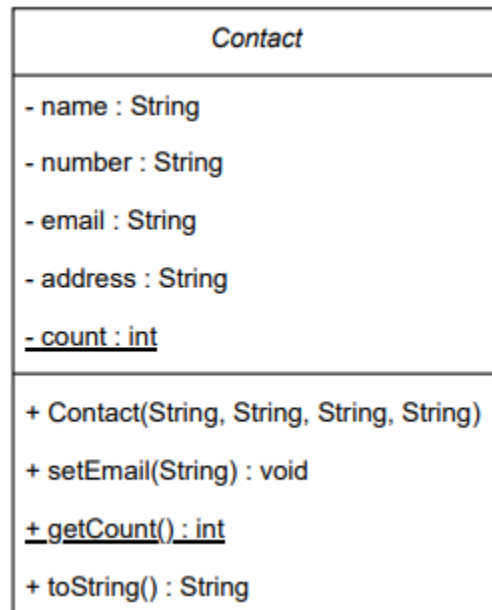
Class **Contact:**

- Instance Attributes:
    - *name:* the name of the contact
    - *number*: the phone number of the contact
    - *email*: the email address of the contact
    - *address*: the address of the contact
- Class Attributes:
    - *count:* the number of contact objects created so far

- Methods:
    - *Contact(name:String, number:String, email:String, address:String):* constructor
    - *setEmail(email:String):* updates the value of *email*
    - *getCount():* returns the value of *count*

- o ***toString():*** returns a string representation of the contact in the following format:
    - ▪ ***name | phone | email | address***

Exercise 1: Write class **Contact** and implement its methods.

Exercise 2: Write class **ContactTest** that has a main method to test the functionalities of class **Contact**:

- Print the number of created contact objects

- Create two contact objects (see sample run)

- Print their info

- Prompt the user to update the email of Sara, then print her info

- Print the number of created contact objects

Sample run:

```
Number of created contacts at the start of the program: 0

Ahmed | 0551122 | ahmad@gmail.com | Riyadh

Ali | 0553344 | ali@gmail.com | Jeddah

Enter new email address for Ahmad: ahmad@outlook.com↵

Ahmad | 0551122 | ahmad@outlook.com | Riyadh

Number of created contacts at the end of the program: 2
```