NOMBRE		ETAPA / CICLO	CURSO
		DAW	1º
APELLIDOS		ASIGNATURA/MÓDULO	CONVOCATORIA
		PROG	ORD
DNI	FECHA	NOTA	
	5-3-2021		

1. **(1p)** Create a class Restaurant that inherits from the class Place. The class must be able to store, in addition to their location, the number of stars as an integer. Create the necessary getters so that the class can return all its parameters, and modify its number of stars.

```
public abstract class Place {

	private String title;
	private double lat;
	private double lon;

	public Place(String title, double lat, double lon) {
		this.title = title;
		this.lat = lat;
		this.lon = lon;
	}

	protected double getLat() {
		return lat;
	}

	protected double getLon() {
		return lon;
	}

	protected String getTitle() {
		return title;
	}

}
```

NOMBRE	APELLIDOS	

2. Create the class MyList able to store generic types. The class must have dynamic memory allocation, and implements the next interface. You have to implement the interface without using any class that inherits from Collection except the sort methods

```
public interface MyStore<T> {

	// (0,75p) Add a element
	public void add(T e);

	// (0,75p) Returns the item at the index position without removing it
	public T get(int index);

	// (1p) Returns and remove the item placed on the index
	public T remove(int index);

	// (0,25p) Return the size of the collection
	public int size();

	// (1p) Store the elements in the file f
	public void store(File f);

	// (1p) Load the elements from the file f
	public void load(File f);

	// (0,5p) Return a String with all the elements in the collection.
	public String print();

	// (1p) Returns true if the element is in the collection and false
	// otherwise.
	public boolean contains(T e);

	// (1p) Sort the elements by the natural order.
	// You have to use any class that inherits from Collection
	public List<T> sort();

	// (1p) Sort the elements by the comparator passed by parameter.
	// You have to use any class that inherits from Collection
	public List<T> sort(Comparator<T> c);

}
```

NOMBRE	APELLIDOS	

3. **(0,75p)** Create a Test class that includes the following steps:

    a. Create a MyList object
    b. Create three restaurants and add them to MyList
    c. Store the elements in the file called myFile
    d. Remove the second restaurant
    e. Show the restaurants sorted by natural order
    f. <u>Show the restaurants sorted by number of stars</u>
    g. Load the elements from the file myFile