# 36-CampusRecycle

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### Vision

A platform for CU students to post products they want to sell and organize meetups with potential buyers

### **Product Description**

The main goal is to make the useless resources (like old bikes or other products) recyclable and available among students and staff.

- User can post/update their resources for sell
- User can browser posted resources and contact seller

## **Technology Description**

- Spring Boot
- Maven
- Hibernate
- Thymeleaf
- MySQL

### Design pattern - Strategy

- Different Ordering
- Behavioral pattern
- Select Algorithm at runtime
- Polymorphism instead of if/else
- Extensible, Refactorable, Maintainable

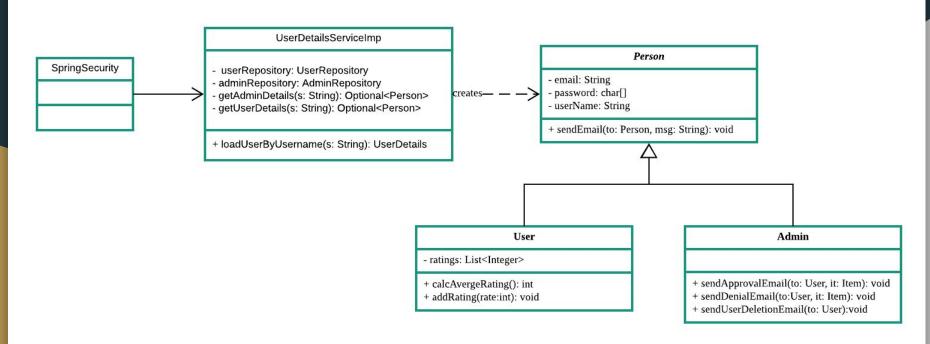
### Implementation

#### ItemList - items: List<Item> Interface <<Interface>> + getSorted(Comparator<Item>: comparator): List<Item> Comparator<Item> + search(keyword: String): List<Item> + getByCategory(category: String): List<Item> + getBySeller(seller: User): List<Item> + getByBuyer(buyer: User): List<Item> + compare(item1: Item, item2: Item): int + getByItemId(item\_id: int): Item + addItem(item: Item): boolean + iterator(): Iterator<Item> Context ItemPriceComparator ItemDateComparator + compare(item1: Item, item2: Item): int + compare(item1: Item, item2: Item): int Strategy 1 Strategy 2

### Design pattern - Factory

- For Spring Security + multiple user classes
- Creational pattern
- Select Class at runtime
- Object created by factory method
- Information Hiding
- Code reuse + Extensible

### Implementation



### Demo- UC1

Browse item by category

### Demo- UC2

Post an item

### Demo- UC3

Admin processing