## UserList Categories <<interface>> UserListService -list\_id = Integer -list\_name = String -item\_id = Integer -categories\_id=Integer -first\_level\_name=String + getter(list\_id):returnInteger + setter(list\_id) + getter(list\_name):returnString + setter(list\_name) + getter(item\_id):returnString + setter(item\_id) +addList(UserList) +deletelist(UserList) +findAllList() +findByName(userList.name) +update(UserList) +save(UserList) +getter(categories\_id):returnInteger +setter(categories\_id) +getter(first\_level\_name) +setter(first\_level\_id) Product -product\_id=Integer -categories\_id = Integer -second\_level\_name=Integer Item -item\_id = Integer -item\_name = String -product\_id = Integer -item\_quantity = Integer <<interface>> ItemService + getter(product\_id):returnInteger + setter(product\_id) + getter(categories\_id):returnInteger + setter(categories\_id) + getter(second\_level\_name):returnString + setter(second\_level\_name) + getter(item\_id):returnInteger +addItem(Item) + getter(item\_id):returnInteger + setter(item\_id) + getter(item\_name):returnString + setter(item\_name) + getter(product\_id):returnString + setter(product\_id) + getter(item\_quantity):returnInteger + setter(item\_quantity) + setter(item\_junatity) + setter(item\_junatity) +additem(Item) +teleteItem(Item) +findAll() +findByName(product\_id.sencond\_level\_name, product\_id.categories\_id.first\_level\_name) +update(Item) +save(Item) User -user\_id = Integer -user\_name = String List<UserList> userList = UserList + getter(user\_id):returnInteger + getter(user\_id); + setter(user\_id) + getter(user\_name):returnString + setter(user\_name) + getter(userList):returnUserList + setter(userList)

**Grocery UML Class** 

## **Grovery UML Entities** Zifei Ren | October 4, 2020 List Grocery\_list User Item PK list\_id user\_id FK PK user\_id PK,FK1 item\_id PK item\_id user\_name PK,FK2 list\_id list\_name FK product\_id item\_quantity Categories products\_to\_categories Products categories\_id PK,FK1 product\_id PK product\_id first\_level\_name PK,FK2 categories second\_level\_name

Zifei Ren | October 3, 2020

