

Entity Classes:

User

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>Username</li><li>Password</li></ul> | <ul style="list-style-type: none"><li>Item</li><li>UserManager</li></ul> |
|---|--|

Item

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>ID</li><li>Item Info (SenderName, SenderNumber, ReceiverName, ReceiverNumber, Description)</li><li>Location</li><li>Username</li><li>StorageRequirement</li><li>Fee</li></ul> | <ul style="list-style-type: none"><li>User</li><li>Locker</li><li>Refrigerator</li><li>Freezer</li><li>ItemManager</li></ul> |
|---|--|

Interface	
Container	Locker, Freezer, Refrigerator
<ul style="list-style-type: none"><li>get capacity</li><li>get number of Items</li><li>get vacancy</li><li>get LocationMap (Location, T/F)</li></ul>	

Locker	Container
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- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>get capacity</li><li>get number of Items</li><li>get vacancy</li><li>get LocationMap (Location, T/F)</li></ul> |  |
|--|--|

Refrigerator		Container
<ul style="list-style-type: none"> <li>• get capacity</li> <li>• get number of Items</li> <li>• get vacancy</li> <li>• get LocationMap (Location, T/F)</li> </ul>		

Freezer		Container
<ul style="list-style-type: none"> <li>• get capacity</li> <li>• get number of Items</li> <li>• get vacancy</li> <li>• get LocationMap (Location, T/F)</li> </ul>		

### Use Cases:

ItemManager		
<ul style="list-style-type: none"> <li>• Add item</li> <li>• Remove item</li> <li>• Search Item</li> <li>• Get StorageTime</li> </ul>	<ul style="list-style-type: none"> <li>• User</li> <li>• Item</li> <li>• Locker</li> <li>• Refrigerator</li> <li>• Freezer</li> <li>• PickupSystem</li> </ul>	

UserManager		
<ul style="list-style-type: none"> <li>• User Register</li> <li>• Lookup user</li> <li>• Record user</li> <li>• Get UserMap (Username, User)</li> <li>• Get UserItemMap (Username, Item list)</li> </ul>	<ul style="list-style-type: none"> <li>• User</li> <li>• Item</li> <li>• PickupSystem</li> </ul>	

Controller:

PickupSystem	
<ul style="list-style-type: none"><li>• Create UserManager</li><li>• Create ItemManager</li><li>• User Login</li><li>• User Logout</li><li>• Pickup</li><li>• Store Item</li></ul>	<ul style="list-style-type: none"><li>• UserManager</li><li>• ItemManager</li><li>• LoginUI</li><li>• OperationUI</li></ul>

User Interfaces:

OperationUI	
<ul style="list-style-type: none"><li>• Take inputs from user</li><li>• Provide feedback</li><li>• Call controller to do the operations</li></ul>	<ul style="list-style-type: none"><li>• PickupSystem</li></ul>

LoginUI	
<ul style="list-style-type: none"><li>• Prompt user to login</li><li>• Provide feedback</li><li>• Call controller to login</li></ul>	<ul style="list-style-type: none"><li>• PickupSystem</li></ul>