| Presentation Layer |  |
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# Service Layer

### User

- + changePassword(username: string , oldP: string, newP: string): json
- + createUser(username: string, password: string): json
- + login(username: string, password: string): json

+ cr + ad

+ de



Board

dTask(title: String, Description: String, DueDate: String): json

eateBoard(Name: string, userEmail: string)

leteTask(title: String): json

+ getBoard(BoardName: String): json

+ getInProgress(): json

+ logout(userEmail: string):json

Task

+ createTask(Title: string, Description: string, DueDate: string): json

+ EditTitle(newTitle: string, user: User, board: string): json

+ EditDueDate(newDate: string, user: User, board: string): json

 $+ \ \mathsf{EditDescription}(\mathsf{newBody}; \ \mathsf{string}, \ \mathsf{user}; \ \mathsf{User}, \ \mathsf{board}; \ \mathsf{string}); \ \mathsf{json}$ 

## **Business Layer**

### UserController

- users: Dictionary<int, User>
- loggedIn: Collection
- + CreateUser(password: string, email: String): void
- + DeleteUser(email: string): void
- + UserExists(email: string): boolean
- + GetUser(email: string): User
- + validatePassword(user: User, password: String): boolean
- + login(email: String, password: String): void
- + logout(user: User): void

### User

+ USERNAME: string

- Backlog(Collec

+ ne

+ de

- InProgress(Coll

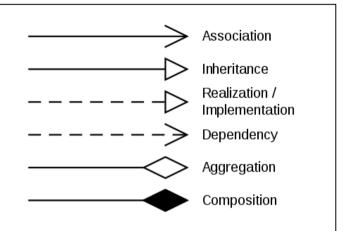
- Done(Collection

+ Name(String)

- + addTask(title: S
- + deleteTask(title
- + changeState(Ta
- + getters
- + setters

| eteBoard(Name: string, userEmail: string)           |       |   |
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| tion) ection)                                       |       |   |
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| String, Description: String, DueDate: String): void |       |   |
| : String): void                                     |       |   |
| ask): void  |       |   |
|   |       |   |

xtState(taskName: string): json



Aggregation: child can exist without the parent

Composition: child cannot exist without the parent

# From Wikipedia

https://en.wikipedia.org/wiki/Class\_diagram

# **Visibility**

- + public
- private
- # protected

- password: string - Boards: Collection - TasksInProgress: Collection + ChangePassword(oldP: string, newP: string): void + Login(password: string): boolean + getters + setters Task - Title(String) - DueDate(String) + CREATION DATE(Date?) - Description(newBody: string): void - State(enum) + EditTitle(newTitle: string): void + EditDueDate(newDate: String): void + EditDescription(newBody: string): void + Getters + Setters

- Board: Dictiona

- maxTasks: Int =

+ Exists(Name: S

+ createBoard(N

+ deleteBoard(Name+ getBoard(Name+ changeMax(ne

# BoardController ry<User, Board> -1 String): Boolean ame: String): void ame: String): void e: String): void wMax: Int): void