Milestone 1

The updated UML:

Service Layer

Service
+ LoadData():Response
+ Deletedata() : Response
+ Register(string,string):Respose
+ Login(string,string): Response<User>
+ Logout(string): Response
+ LimitColumn(string,string.int,int):Response
+ GetColumnLimit(string,string,int):Response<int>
+ GetColumnName(string,string,int): Response<List<Task>>
+ AddTask(string,string,string,string,DateTime): Response<Task>
+ UpdateTaskDueDate(string,string,int,int,DateTime):Response
+ UpdateTaskTitle(string,string,int,int,string):Response
+ UpdateTaskDescription(string,string,int,int,string):Response
+ AdvanceTask(string,string,int,int):Response
+ GetColumn(string,string,int):Response<List<Task>>
+ AddBoard(string, string): Response
+ RemoveBoard(string,name): Respone
+ InProgressTasks(string):Response<List<Task>>
- ConvertBusinessToServiceTasksCollection(List<BL.Task>) Response<List<Task>>

Business Layer

PasswordController
- MIN_LEN: int
- MAX_LEN: int
- isValid(string): Response<boolean>
+ createPassword(string): Response<Password>

UserController
+ Register(string, string): Response
+ Login(string, string): Response<User>
+ logout(string): Response
+ getUserByEmail(string): Response<User>
+ isLoggedIn(string): Response<boolean>
- IsValidEmail(string): bool

BoardController
+ LimitColumn(string,string.int,int):Response
+ GetColumnLimit(string,string,int):Response<int>
+ GetColumnName(string,string,int): Response<string>
+ AddTask(string,string,string,string,DateTime): Response<Task>
+ UpdateTaskDueDate(string,string,int,int,DateTime):Response
+ UpdateTaskTitle(string,string,int,int,string):Response
+ UpdateTaskDescription(string,string,int,int,string):Response
+ AdvanceTask(string,string,int,int):Response
+ GetColumn(string,string,int):Response<List<Task>>
+ AddBoard(string, string): Response
+ RemoveBoard(string,name): Respone
+ InProgressTasks(string):Response<List<Task>>
- AllBoardsContainsBoardByEmail(string, string): Response
- TaskGetter(string,string,int,int): Response<Task>

TaskController
- MAX_TITLE: int
- MAX_DESC: int
- taskNumber: int
+ AddTask(string,string,DateTime,int): Response<Task>
+ isValidTitle(string): bool
+ isValidDesc(string): bool
+ UpdateTaskDueDate(Task, DateTime):Response
+ UpdateTaskTitle(Task,string):Response
+ UpdateTaskDescription(Task,string):Response

Password
- password : string
- IsMatch(string): bool

User
- Email: String
- isLoggedIn: boolean
+ Login(string): Response<User>
+ logout(): Response
+ IsPasswordCorrect(string): bool

Response
- ErrorMessage: String
- ErrorOccured: bool

Response<T>
- Value: T
~ FromValue(T): Response<T>
~ FromError(String): Response<T>

Board
- name: String
- MaxBacklogs: int
- MaxInProgress: int
- MaxInDone: int
+ getNumOfTasks():int
+ AddTask(Task): Response
+ getInProgress():Response<List<Task>>
+ AdvanceTask(int): Response
+ LimitColumn(int): Response
+ GetColumnLimit(int):Response<int>
+ GetColumnLName(int):Response<string>
+ GetColum(int):Response<List<Task>>
- containsTask(int): bool

Task
- ID: int
- creationTime: DateTime
- dueDate: DateTime
- title: String
- description: String
+ UpdateTaskDueDate(DateTime):Response
+ UpdateTaskTitle(string): Response
+ UpdateTaskDescription(string):Response

-users

-backlogs   0..n

-inProgress   0..n

-done   0..n

1..1
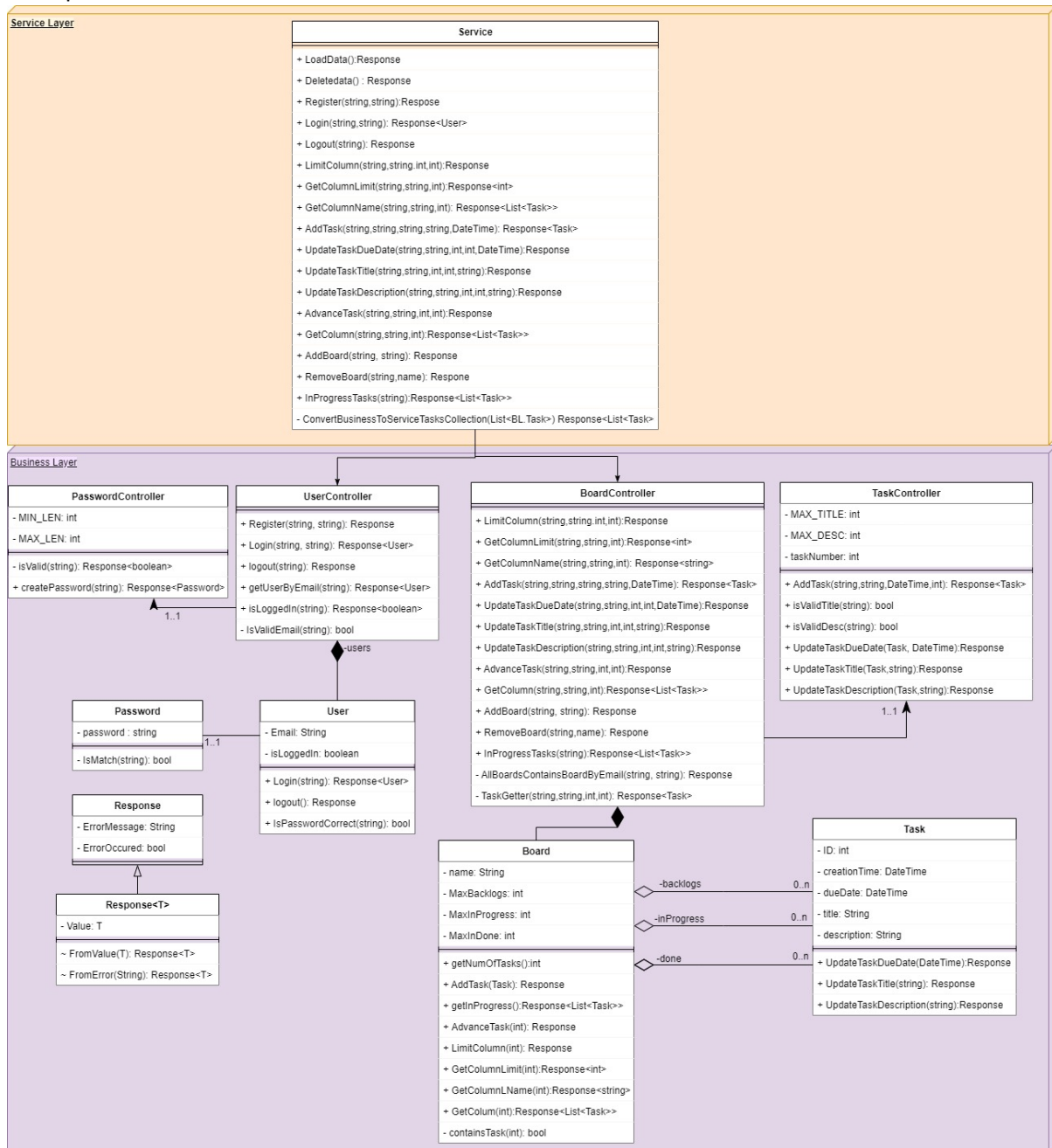
The changes we have made in the UML are:

Service:

- A new method to convert a list of Business Layer objects into a list of Service Layer objects. It was more convenient.

UserController:

- isValidEmail- a method to check validity of a given mail when user registers.

BoardController:

- A method to check validity of arguments.
- A method to ease the task extracting

Board:

- AddTask – a method we forgot to put.
- containsTask – a convenient way to confirm a given task is in the board.

TaskController:

- field taskNumber – for generating new ids to tasks.
- isValidTitle – more convenient
- isValidDesc - more convenient