**Assignment 4**

1. TODO Database Schema

Our in-memory data structure on the server-side basically has only one table (ToDoItem) with six attributes (name, priority, reminder, dueDate, done, id). Because there is only one table, we don’t have any relationships between tables. The primary key is the id, since this is unique for every ToDoItem.

The TODO database on the other hand, contains six tables.

\*\*User\*\*

-Id

-Name

-Email

-Username

-Password

\*\*ToDoItem\*\*

-Id

-Title

-Text

-CreationDate

-DueDate

-Completed

-CompletionDate

-Priority

**-ToDoListId**

-ParentToDo

\*\*ToDoList\*\*

-Id

-Name

-CreationDate

**-Owner**

-IsPublic

\*\*Tag\*\*

-Id

-Text

\*\*ToDoAssignment\*\*

-ToDoId

**-AssigneeId**

-AssignDate

\*\* ItemTag\*\*

**-ToDoId**

-TagId

}

The ToDoItem list in this schema already has a lot more attributes: a text, creationDate, completionDate and ParentToDo. The extra two dates would add more information on an elaborate timeline for every item. So far our application only contains one ToDoList and you can’t change this. Adding more lists would add to the functionality and would require a ToDoList table.

Our application has not yet implemented several users. So we do not have a User table yet. When you log in to our application, the user login data is not saved and so the lists are not user specific.

Implementing the toDoList and User table to our application would therefor add to our functionality a lot and provide the option to be able to do a lot more with the app.

We would update our design by adding the options for more lists and also having the lists specified for every user, or having a public list.

Our new design:

\*\*ToDoItem\*\*

-Id

-Name

-CreationDate

-DueDate

-Done

-CompletionDate

-Priority

**-ToDoListId**

\*\*ToDoList\*\*

-Id

-Name

-CreationDate

**-Owner**

-IsPublic

\*\*User\*\*

-Id

-Name

-Email

-Username

-Password