TALLINN UNIVERSITY OF TECHNOLOGY

School of Information Technologies

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COMMUNITY APP

Web applications with C# project

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Author's declaration of originality

I hereby certify that I am the sole author of this project and this project has not been presented for examination or submitted for defence anywhere else. All used materials, references to the literature and work of others have been cited.

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Abstract

The thesis is written in English and contains [pages] pages of text, [chapters] chapters, [figures] figures and [tables] tables.

Table of Contents

1. Introduction

Community is an application that brings students closer together to achieve mutual academic goals. Students can keep track of their university workload in real time with suggestions like which courses to prioritise based on the amount of time and effort it takes to complete them on average and reminders of upcoming deadlines. Gamification factors like shooting confetti on marking to-do list items as done, seeing the progress metrics surge and getting badges on completion will motivate students to keep track of their studies. Since dropout rates among men are higher than in women, adding the gamification factor could lead to a higher completion rate. The workload visibility and organisational part might be more appealing for women; thus, the percentage of both genders should increase.
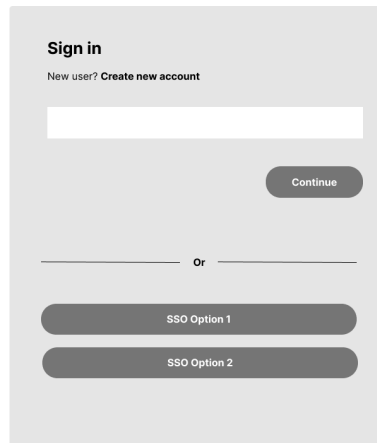
However, the main emphasis of Community is on collaboration to keep students from falling behind and getting help from peers when they struggle. Especially if you are a student returning from study leave or after a dropout, continuing studies with a different group in each class, this track can become really difficult. The collaboration features like creating or searching for teams to tackle an assignment could battle loneliness and make learning at university a more enjoyable and a fun experience.

The application will be able to track time on assignments spent like Toggl time tracking without using a 3rd party software. At the end of the semester, you will know exactly how much time you put in and compare to other peers where you position on the leaderboard.

When users see the metrics on how much one still has to go and how much time one has to put into subjects to achieve the points, the reality hits them in the face. Overview with metrics will dissipate the illusion of having all the time in the world and minimise students falling into the Student Syndrome at the end of each semester. Community is a tool to help balance the academic workload, find study groups and help manage one's projects and semester work.

2. Wireframe

1. Login Page

Sign in

New user? **Create new account**

[   ]

Continue
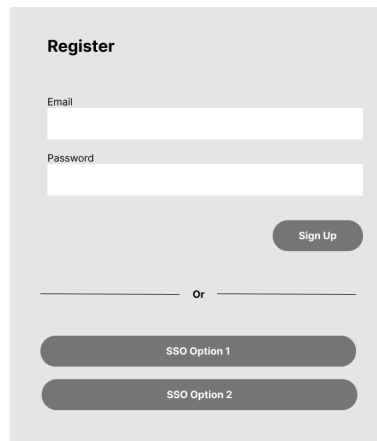
─────────── Or ───────────

SSO Option 1

SSO Option 2

2. Register Page

Register

Email
[   ]

Password
[   ]

Sign Up

─────────── Or ───────────

SSO Option 1

SSO Option 2

3. Main page
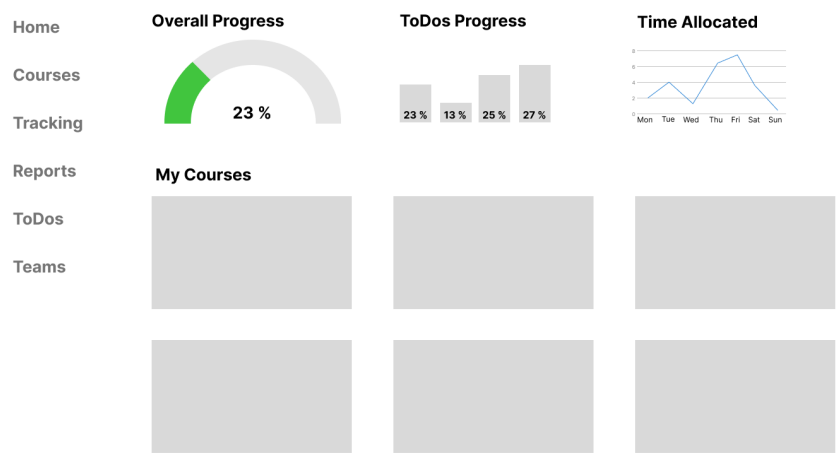
Ideally I want the main view to show a dashboard of the necessary running metrics and a view of active courses so a user can quickly resume work on whatever is necessary.

4. ToDo list page
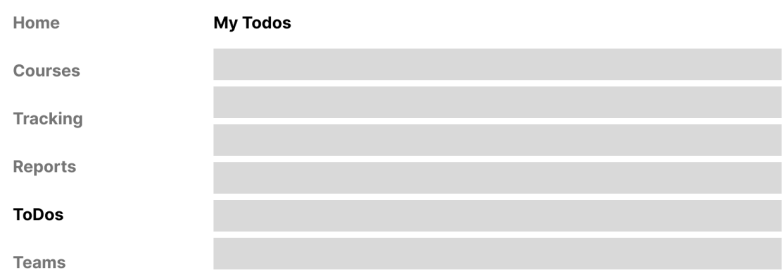
Time tracking page will look similarly. You can edit ToDo list items and study sessions similarly.

5. Teams

Home **Upcoming Sessions**

Courses

Tracking

Reports **Study Groups**

ToDos
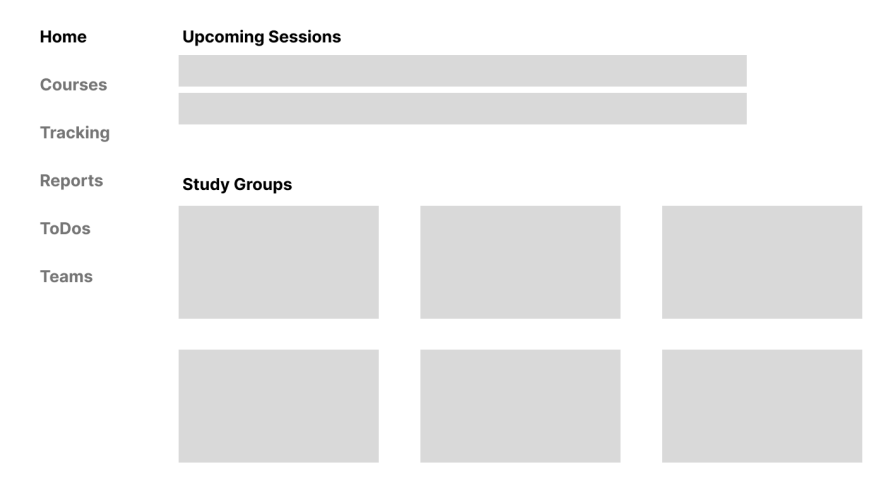
Teams

In teams you can see the upcoming study sessions and chat and keep track of group activites.

3. ERD Model

Dashboard

PK	Id	int
uniq	configJson	string(256)
FK	UserId	TKey

Course

PK	Id	int
uniq	CourseCode	string(7)
	Name	String(256)

Declarations

PK	Id	int
FK	UserId	TKey
FK	CourseId	int
	active	boolean
	deleted	boolean

User

PK	Id	TKey
	UserName	string(256)
uniq	NormalizedUserName	string(256)
	Email	string(256)
idx	NormalizedEmail	string(256)
	EmailConfirmed	boolean
	PasswordHash	string
	SecurityStamp	string
	ConcurrencyStamp	string
	PhoneNumber	string
	PhoneNumberConfirmed	boolean
	TwoFactorEnable	boolean
	LockoutEnd	datetime
	LockoutEnabled	boolean
	AccessFailedCount	int
	FirstName	string(128)
	LastName	string(128)

UserRole

PK/FK	UserId	TKey
PK/FK	RoleId	TKey

Role

PK	Id	TKey
	Name	string(256)
uniq	Normalizedname	string(256)
	ConcurrencyStamp	string(256)
	DisplayName	string(256)

RoleClaim

PK	Id	int
FK	RoleId	TKey
	ClaimType	string
	ClaimValue	string

UserLogin

PK	LoginProvider	string(128)
PK	ProviderKey	string(128)
	ProviderDisplayName	string
FK	UserId	TKey

UserToken

PK/FK	UserId	TKey
PK	LoginProvider	string(128)
PK	Name	string(128)
	Value	string

UserClaim

PK	Id	int
FK	UserId	TKey
	ClaimType	string
	ClaimValue	string

Task

PK	Id	int
FK	UserId	TKey
	Name	string(256)
	Description	string(256)
	endTime	timestamp
	completed	boolean
FK	CourseId	int

Timelog

PK	Id	int
FK	userId	TKey
FK	TaskId	int
	enabled	boolean

Room

PK	Id	int
FK	UserId	TKey
	Name	string(256)
	Description	string(256)

Group

FK	UserId	TKey
FK	ConversationId	int
	joined_dateTime	timestamp
	left_dateTime	timestamp
PK	Id	int

Conversation

PK	Id	int
	Name	string(256)

Studysession

PK	Id	int
FK	GroupId	int
	modifiedDate	timestamp
	startTime	timestamp
	endTime	timestamp

Message

PK	Id	int
FK	userId	TKey
FK	ConversationId	int
	sent_dateTime	timestamp