

# Software Requirements Specification

<b>Abstract:</b>	This SRS document is for the SWE 573 Project on Co learning web application built using Django Framework.		
<b>Keywords:</b>	Co-learning, django, web		
<b>Approved:</b>			
<b>Author</b>	<b>Project Manager</b>	<b>Product Owner</b>	
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## Revision History

Version	Date	Author	Change Description
1.0	20/03/2022	Muhammad Hammad Siddiqui	Initial Draft
1.1	06/04/2022	Muhammad Hammad Siddiqui	Final Draft

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## Section 1. INTRODUCTION

### ***Purpose***

The purpose of this entire document is to document the requirements of a learning application that will be built for users to sign up and learn about new topics.

The audience for this document include the design and development team that will be working on building the application

### ***Scope***

Imagine that there exists a user in a segment that is seeking to gain knowledge on a new topic. The software with the help of crowdsourcing will help learners learn a new topic. The other type of user will be an author, who will publish a course (a set of videos) on a particular topic with the intention for the learners to watch it and gain knowledge.

### ***Overview***

The rest of the SRS document contains the breakdown of this project and how to take it forward at every stage.

### ***Definitions, Acronyms, and Abbreviations***

Term/Acronym	Definition
FE	Frontend
BE	Backend
nginx	Load balancer

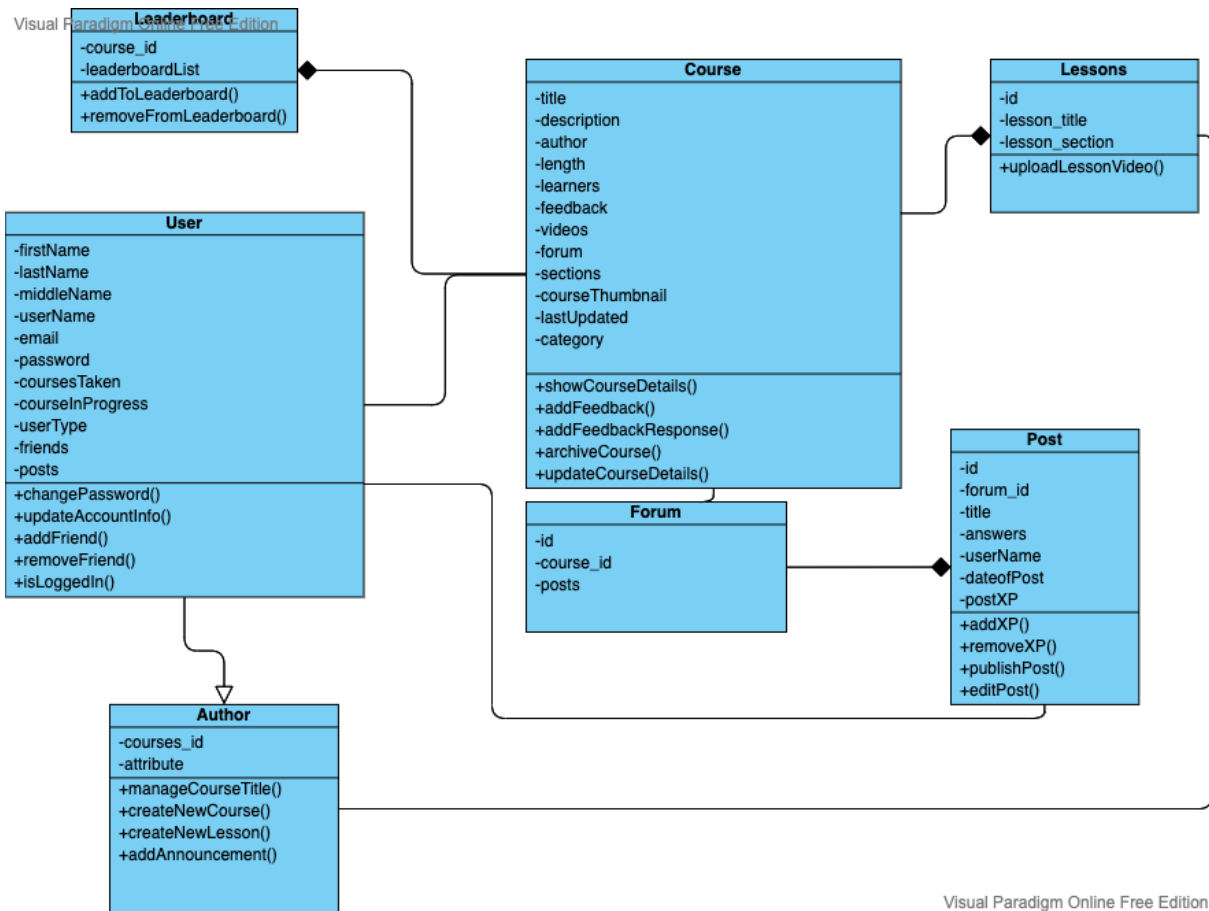
## Section 2. General Description

### ***Product Perspective***

Imagine an online platform where users go and learn a new skill. For example, Coursera, where a lot of institutions post their courses on a wide range of topics and the learners sign up and take these courses. At the end of the course they are eligible to get a certificate of completion. Here, they are required to pay for the certificate and be able to use the credits of the course as well.

### ***Product Functions***

The class diagram for the platform can be found below:



## User Characteristics

### Persona:

*John, 23 years old.*

John is a student at a university doing his bachelors in business management.

He is interested in learning how he can combine his business knowledge with an analytical skill like programming. Although John is pretty good at business given his bachelors degree, he would like to learn programming.

As his coursework does not include programming, John has found this website and would like to enroll in a course. Since learning to program alone is a difficult process, John is looking for a platform where he can meet co-learners and start learning in a collaborative, gamified manner. This will keep him motivated and social at the same time. The learning output of John will also be better than how he might have if he learnt it via a platform with no co-learning features.

## General Constraints

Size of the question in character length
Number of questions a user can ask/answer in a given amount of time. (Too avoid spam)
Each user can upvote/downvote only once for a particular question/reply.
Avoid duplicate questions to be posted.
The Author can upload a file for upto 100 mb per video.
The app should be built using Django
The backend should be divided into logical microservices
The application should be hosted on a linux environment
The application should run on a docker environment

## Section 3. Requirements

### Functional Requirements

Module	As a <type of User>	I want to <perform a task>	so that I can <achieve some goals>
Registration	Learner	I want to be able to sign up on the platform	I can start learning
	Author	I want to be able to sign up on the platform	I can start earning
	User	I want to be able to reset my password in case I forget	Access my account again
	User	I want to be able to sign up using my Google or Facebook Account	I do not have to remember a new password for this platform
Platform	Learner	be able to enroll into a course	take the lessons and learn a new topic
	Learner	search for a course using the search bar	Find relevant courses using my keyword
	Learner	search for a course using the categories filter	Find relevant courses in a specific category

	Learner	be able to watch videos on the platform	understand the topic clearly
	Learner	be able to see recommended courses on the homepage	find interesting relevant topics
	Learner	be able to preview a course's intro video without enrolling	get a feeling of how interesting the course would look
	Learner	be able see all my courses that I am enrolled in, on the dashboard	I can access the course that I want to study at that particular time
	Learner	be able to attempt quizzes on the site	I can assess my learning skills so far
	Learner	be able to receive a certificate of completion	I can share it with my network
Feedback	Learner	be able to rate a course and provide text feedback	I can help improve the course or praise the author if it is a good course
	Author	be able to reply to a feedback	I can justify for any bias feedback
	Author	be able to report any spam feedback	to avoid spams
Co-learning	Learner	be able to see other people's profile	know how well they are doing on the course
	Learner	be able to add people as friends	I am subscribed to their learning updates
	Learner	be able to see the course's leaderboard	know how well I am doing on the course as compared to others
	Learner	be able to show courses I have completed	show it to others
	Learner	be able to show courses I am enrolled in on my profile	show it to others
	Learner	be able to see the top learners of the week	can compare it with my progress
	Learner	be able to see my own progress	I know where I stand on the course
Forum	Answerer	Answer a question	gain rewards
	Observer	Downvote an answer	Help others realize that the answer is inadequate
	Observer	Upvote an answer	Help others realize that the answer is adequate
	Questioner/Answerer	Comment on any specific question or an answer	For further clarifications
	Questioner/Observer	Pay the Answer XP points	the Answer gets a compensation for their effort

	er		
	Answerer	gain more XP points	build the integrity of the answers
	User	be able to access the general forums	can talk about things apart from the course materials
<b>Course Publication</b>	Author	be able to publish a course on a particular topic	gain rewards in terms of paid subscription
	Author	be able to upload videos	so that learners can watch it
	Author	be able to answer questions in the course forum	I can help learners clearing their confusion
	Author	be able to add quizzes	I can assess learners on their learning skills
	Author	be able to add announcements	I can share important updates timely
	Author	archive a course	remove outdated courses
	User	be able to update my email address	login with my new email
	User	be able to change my password	have a secure account
	Learner	be able to search for courses/answers	Enroll or find answers on the topic of my interest
	Learner	be able to receive a certificate of completion	share it with my professional network
<b>Profile</b>	User	be able to share Facebook link on my profile	I can extend my friends outside of the platform
	User	be able to share Twitter link on my profile	I can extend my followers outside of the platform
	User	be able to share LinkedIn link on my profile	I can extend my network outside of the platform

## User Interfaces

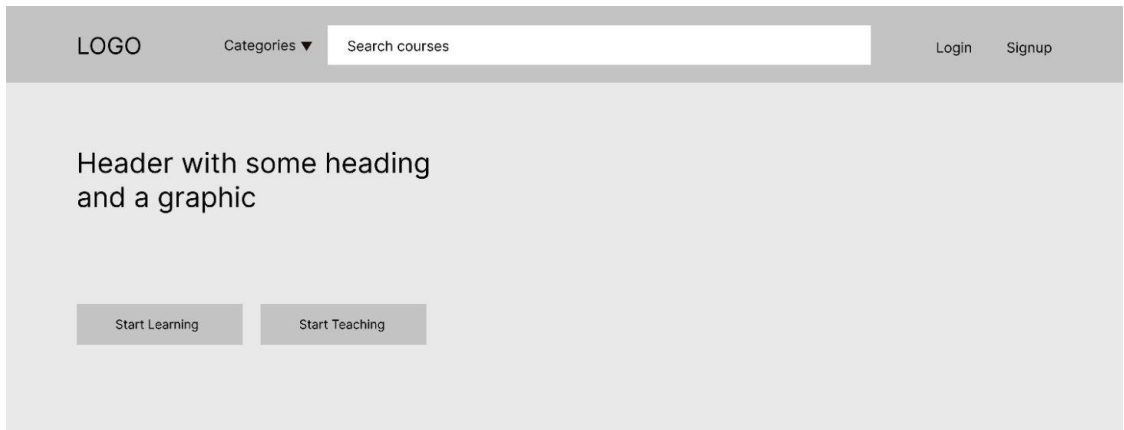
The user interfaces for the platform can be found on the next page.



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## Homepage



### TOP TRENDING COURSES



### Categories



### Top Learners



Sign Up Page:

LOGO

Categories ▼

Search courses

Login

Signup

Register for a new account.  
Start Learning Today

Email address\*

your.name@yourcompany.com

Password\*

\*\*\*\*\*

Show

Confirm Password\*

\*\*\*\*\*

Show

Already have an account? [SIGN IN](#)

Sign Up



Login Page:

LOGO

Categories ▼

Search courses

Login

Signup

Sign in

Email address\*

your.name@yourcompany.com

Password\*

\*\*\*\*\*

Show

Don't have an account? [SIGN UP](#)

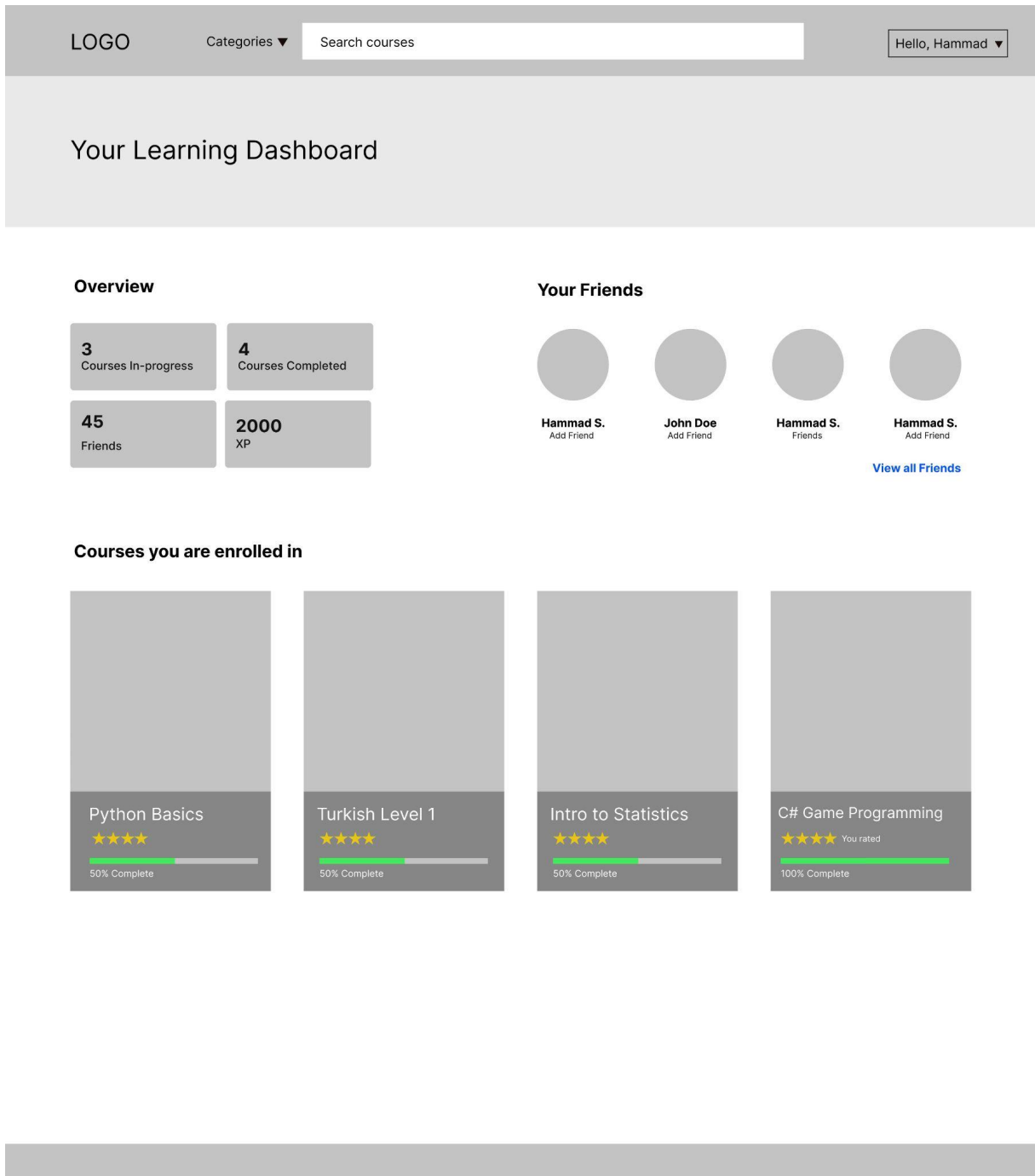
☒ Remember me

Forgot Password?

Login



Dashboard Screen: what the user sees right after logging in.



Course Page (when a user clicks on a particular course page):

LOGO

Categories ▼

Search courses

Hello, Hamad ▼

Turkish Level 1

Section 1 - Basics

Introduction

100% Complete

How to say "Hi"?

50% Complete

Counting Numbers

50% Complete

Quiz 1

You scored 50% [Reattempt](#)

Section 2

Video 1 title

100% Complete

Video 2 title

50% Complete

Video 3 title

50% Complete

Quiz 1

You scored 50% [Reattempt](#)

Section 3

Video 1 title

100% Complete

Video 2 title

50% Complete

Video

Questions

Search questions

How do we say "flying" in Turkish?

Posted by You on 27th March 2022

Replies

You can say "Ucan".  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a libero ligula. Ut augue orci, viverra id gravida eleifend, interdum ut felis. Vivamus porta venenatis libero, non fringilla ex commodo vel. Vivamus auctor rutrum sodales. Sed nec dictum felis. Cras laoreet justo nec orci facilisis fermentum.

Posted by Author of the course on 28th March 2022

Upload image

Reply

How do we say "flying" in Turkish?

Posted by You on 27th March 2022

How do we say "flying" in Turkish?

Posted by You on 27th March 2022

Course Leaderboard Page (shows who are the top performing learners of a particular course). Also shows the general forum where users can talk about topic/off-topic items.

LOGO

Categories ▾

Search courses

Hello, Hammad ▾

Course Leaderboard

Top Learners of the week

Hammad S.  
Add Friend

John Doe  
Add Friend

Hammad S.  
Friends

Hammad S.  
Add Friend

John Doe  
Add Friend

Hammad S.  
Friends

John Doe

Hammad S.

Your friend's who are also taking this course

Hammad S.

John Doe

Hammad S.

Hammad S.

John Doe

Hammad S.

John Doe

Hammad S.

General Forum

Search Forums

How do we say "flying" in Turkish?  
Posted by You on 27th March 2022

Replies  
You can say "Ucan".  
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec a libero ligula. Ut augue orci, viverra id gravida eleifend, interdum ut felis. Vivamus porta venenatis libero, non fringilla ex commodo vel. Vivamus auctor rutrum sodales. Sed nec dictum felis. Cras laoreet justo nec orci facilisis fermentum.  
Posted by Author of the course on 28th March 2022

Upload image

Reply

How do we say "flying" in Turkish?  
Posted by You on 27th March 2022

▼

How do we say "Computer" in Turkish?  
Posted by Jack on 27th March 2022

▼

How do we say "Chair" in Turkish?  
Posted by Ali on 27th March 2022

▼

How else are you guys improving your vocabulary?  
Posted by Hammad on 27th March 2022

▼

How do we say "I am not available today" in Turkish?  
Posted by You on 27th March 2022

▼

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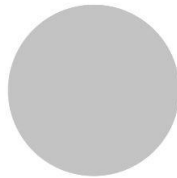
## User Profile:

LOGO

Categories ▼

Search courses

Hello, Hammad ▼



Hammad Siddiqui

[Add as a Friend](#)[Facebook](#)[Twitter](#)[LinkedIn](#)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin congue risus a diam convallis condimentum. Proin rutrum erat turpis, vel ultrices orci consectetur blandit. Aenean congue ut augue id aliquet. Suspendisse a scelerisque magna. Mauris lacinia tellus a erat rhoncus, quis tempor lorem blandit. Suspendisse consequat et mauris sed commodo. Maecenas viverra, neque sed egestas sollicitudin, diam arcu facilisis nibh, non vulputate purus lectus non dolor. Duis consequat ut erat in efficitur. Donec pellentesque, nunc vel iaculis molestie, nibh lacus congue lorem, eu ultrices lorem elit in ante. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia curae; Duis tempor sollicitudin augue eu commodo. Vestibulum iaculis semper porttitor. Sed tristique volutpat porta. Mauris imperdiet risus nec tellus pulvinar consectetur. Donec lectus felis, condimentum id lorem sit amet, rutrum tristique nibh. Vivamus eget augue est.

## Overview

3

Courses In-progress

4

Courses Completed

45

Friends

2000

XP

## Hammad's Friends

Hammad S.  
[Add Friend](#)John Doe  
[Add Friend](#)Hammad S.  
[Friends](#)Hammad S.  
[Friends](#)[View all Friends](#)

## Recently Completed Courses

C# Game Programming

★★★★★

100% Complete

Cooking BBQ

★★★★★

100% Complete



**Sequence Diagram for a particular Use-case**

The following use case diagram shows what happens when a user tries to view a course content without logging in.

