# CollaPod - A Collaborative Learning App

Mert Can Geyik
Boğaziçi University
Software Engineering Department
SWE573
26 May 2022

Git Repository:
https://github.com/bharaddur/bounswe573-2022

Git Tag Version:
v0.9

Deployment URI:
https://orca-app-ah2ap.ondigitalocean.app/

HONOR CODE

Related to the submission of all the project deliverables for the Swe573 2022 Spring semester project reported in this report, I, Mert Can Geyik declare that:

- I am a student in the Software Engineering MS program at Bogazici University and am registered for Swe573 course during the 2022 Spring semester.

- All the material that I am submitting related to my project (including but not limited to the project repository, the final project report, and supplementary documents)
have been exclusively prepared by myself.

- I have prepared this material individually without the assistance of anyone else with the exception of permitted peer assistance which I have explicitly disclosed in this report.

Mert Can Geyik

# Table Of Contents

# 1. Overview

In this project we have developed a Django app using python, html and css. While developing this project we have used GitHub as a version management system. And Docker to containerize our app to deploy to live environment. The project name is CollaPod

CollaPod is a collaborative learning platform that enable users to share their existing knowledge in publicly created spaces called Pods. Users can register and enroll to these pods and learn new things. There is no specific topic in CollaPod. The topic or area selection is purely depends on user's preference. Every user can log in to this platform and they can join to existing Pods or create their own.

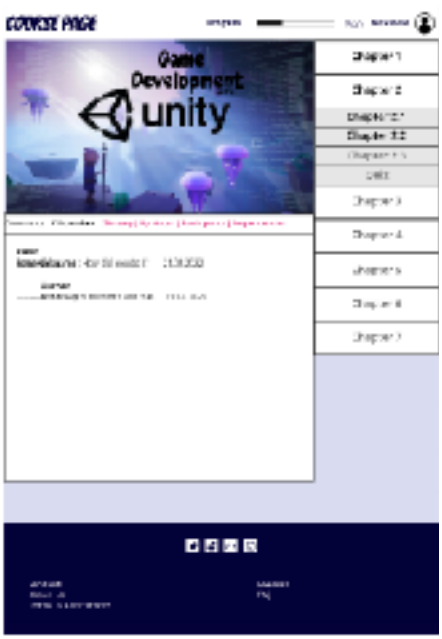
# 2. Software Requirements Specification

| **Requirements** | **Status** |
|---|---|
| System shall have one user subscription type. | Completed |
| After a user is subscribed he/she will be able to take learning spaces. | Completed |
| Users should be able to give learning space on this platform. | Completed |
| System should provide main page. | Completed |
| System should be able to stream videos | Completed |
| System should be able to assess quizzes | Not Completed |
| System should be able to provide written documentations | Completed |
| Users who are giving learning space will be able to create chapters in their learning spaces | Completed |
| Users who are giving learning space will be able to structurise their content in chapters (e.g. video fist then written material and quiz at the end.) | Completed |
| In order to motivate users there should be badges. | Not Completed |
| System should calculate the learning space taken and give reward points to users who are taking learning space. | Not Completed |
| Users should be able to get badges with their reward points. | Not Completed |
| Users who are taking learning space should be able to give evaluation and feedback comments to instructors. | Completed |
| System should be able to give tags to learning space contents | Completed |
| System should provide tag search functionality to users. | Completed |
| System should enable users to search desired learning spaces. | Completed |
| System should provide my learning spaces page to the users. | Completed |
| My learning spaces page should consists learning spaces taken and learning spaces which are in progress. | Completed |
| Learning spaces which are in progress should show the % of the progress | Not Completed |
| Users who are taking a learning space should be able to write messages to instructor. | Not Completed |
| System should provide learning space creation page to the users. | Completed |
| Users should be able to define their learning spaces in learning space creation page | Completed |
| System should provide profile page to the users. | Not Completed |

| | |
|---|---|
| Profile page should provide a facility to add/remove profile picture and personal data such as name, surname, mail address, website (if any) , biography and Social media URLS. | Not Completed |
| Profile page should provide privacy settings. (TBD). | Not Completed |
| Main page should have most popular learning spaces according the user's interests | Not Completed |
| System shall ask interests of users while signing up | Not Completed |
| Learning space page will have chapter list | Completed |
| Users will be able to see other users who are taking the same learning space | Not Completed |
| Users should be able to follow each other | Not Completed |
| Chapters should have prerequisite chapter information | Not Completed |
| Learning spaces should have like functionality | Completed |
| Users should be able to start discussions under learning spaces | Completed |

# 3. Design

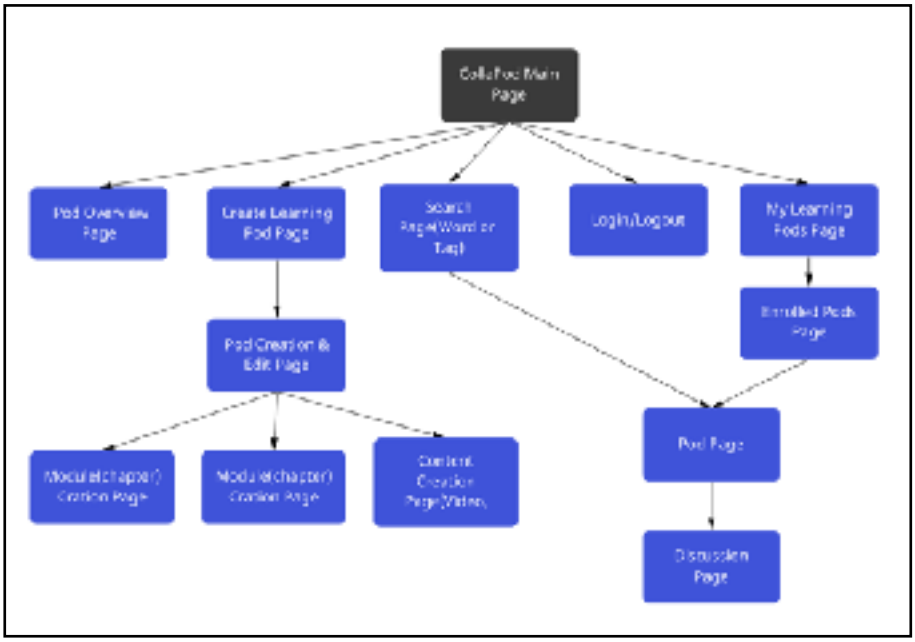
## 3.1. Initial Mockup Screens



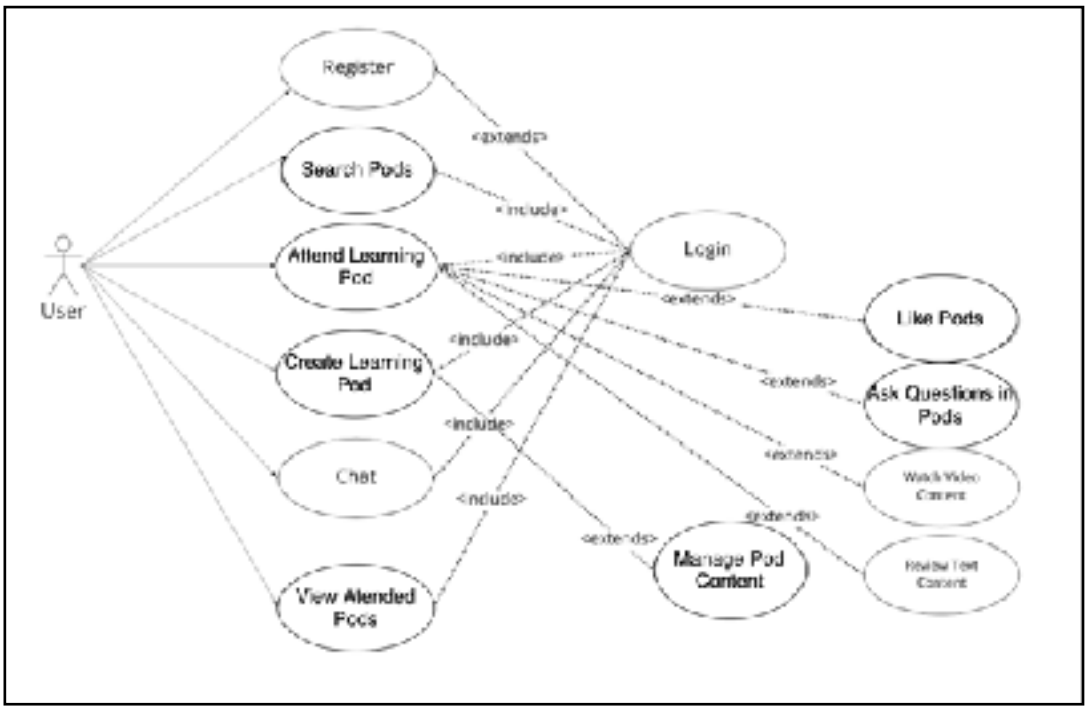


### 3.1. UML Diagrams

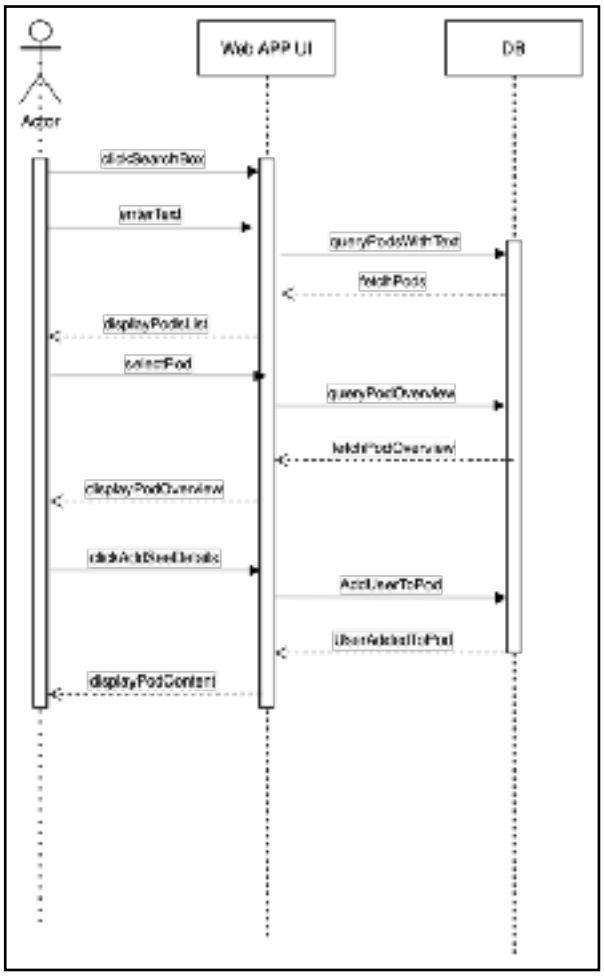
*Tree Architecture of Web App*



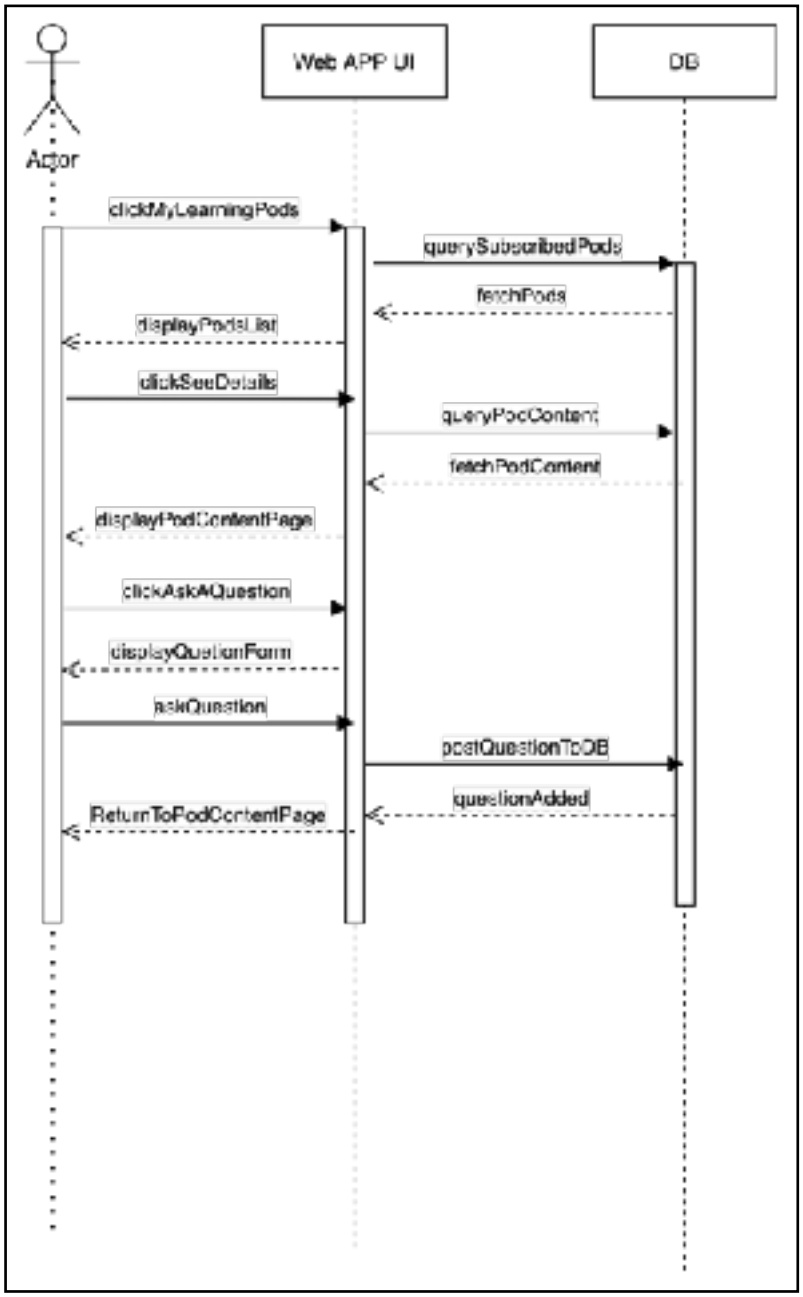
*Use Case diagram of the web app*



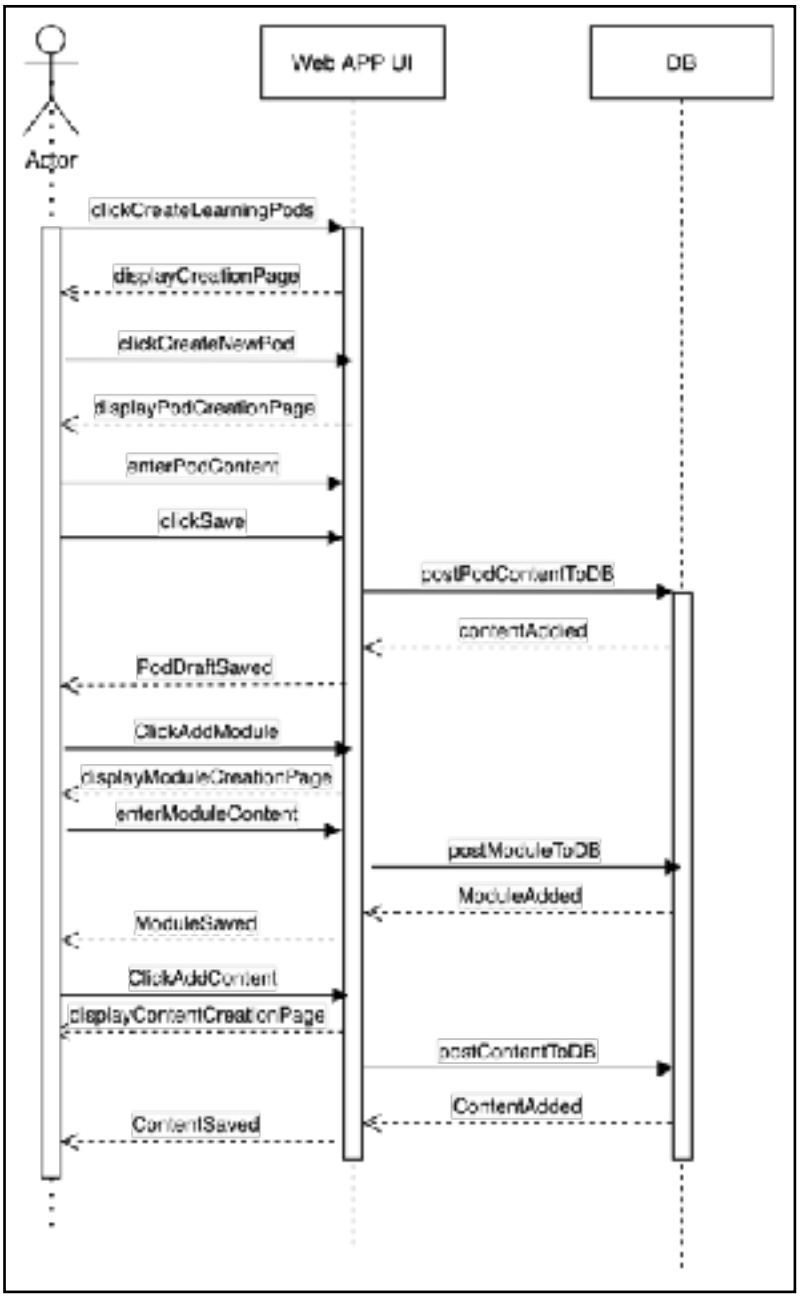

*Sequence diagram of searching and displaying pods in web app*



*Sequence diagram of displaying subscribed pods and displaying pod content in web app*



*Sequence diagram of creating pods and adding content in web app*




# 4. Status Of Deployment

## 4.1. Deployment Method

The app is deployed to DigitalOcean's app service. It is an app service that containerize any app and deploy it to web with an integration to GitHub. For deploying the app DigitalOcean's own manuals has been used.

Deployment URI: https://orca-app-ah2ap.ondigitalocean.app/

# 5. System Manual

In order to run this app in local environment, app itself needs to be cloned from the public repo.

Public Repo HTTP: https://github.com/bharaddur/bounswe573-2022.git

From terminal, below commands needs to be given:

$ git clone https://github.com/bharaddur/bounswe573-2022.git

After cloning is done

$ docker-compose build

It may take a while for it to compose the dockerized application but when it is done it will be ready to be used. There is no additional command needed as “python manage.py runserver” and “python manage.py migrate” is done in entrypoint script.

# 6. User Manual

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## 6.1. Credentials and Site URL

**Site URL:** https://orca-app-ah2ap.ondigitalocean.app/

**Username:** uskudarli
**Password:** spice1234

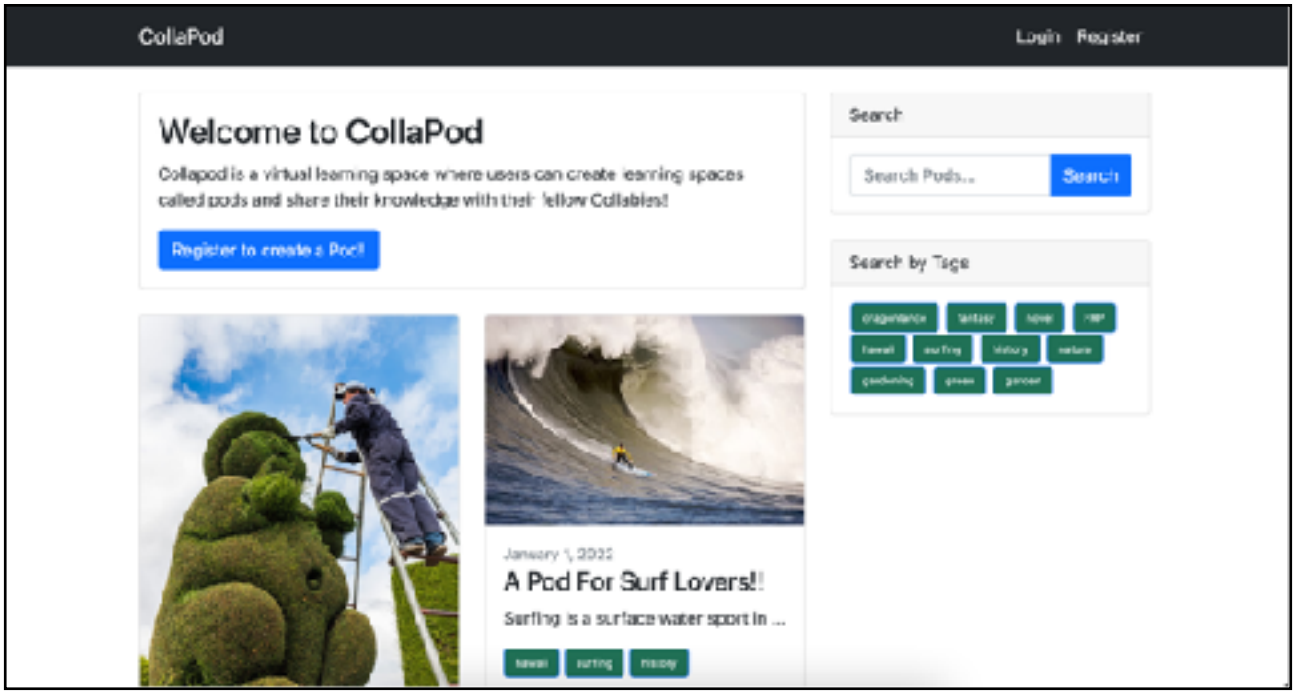
**Username:** bharaddur
**Password:** spice1234

### 6.2. How To Use Web App

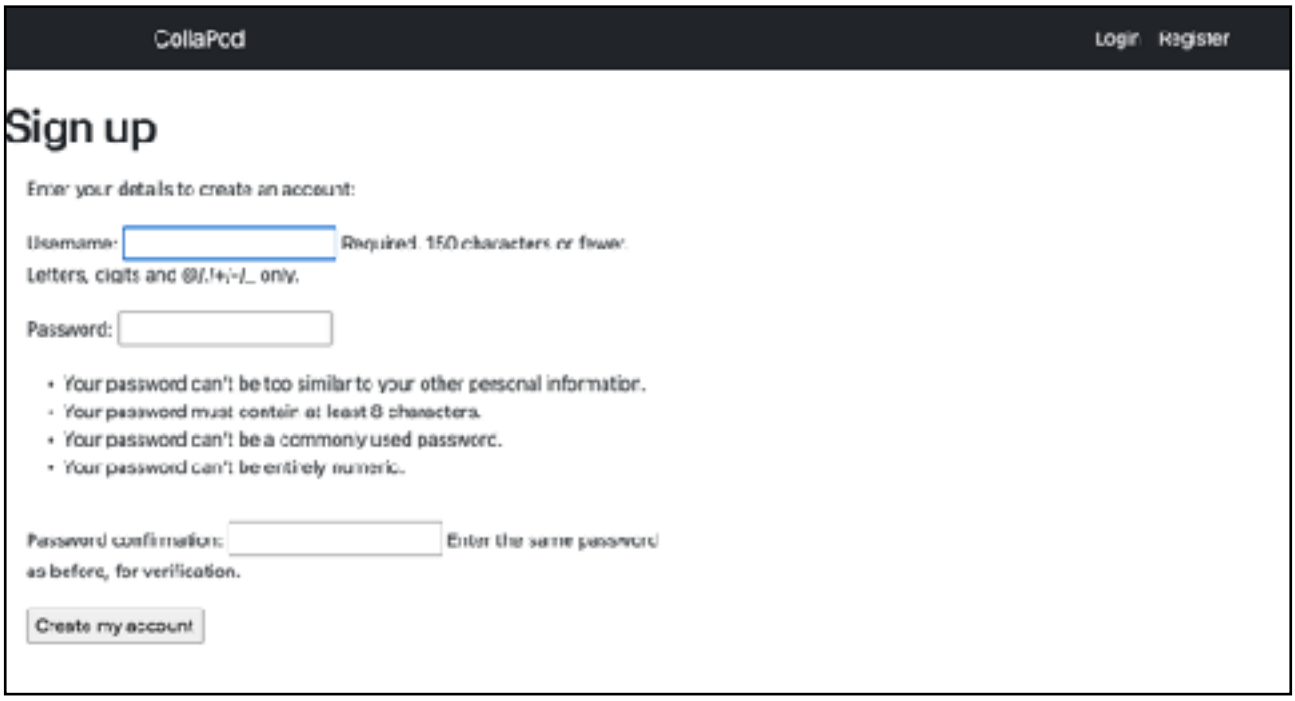
#### 6.2.1 Registering to Collapod

In order to use this app first URL that is given above needs to be clicked. Once it is clicked users will be seeing main page of the CollaPod application.

In the main page a user will first see the created Pods in the CollaPod site. User will be able to search any Pod by giving writing desired text to search textbox. There is also search by tags functionality in CollaPod and users will be able to query Pods by clicking any tag. In order to see any Pod overview user needs to be logged in or registered to the CollaPod.



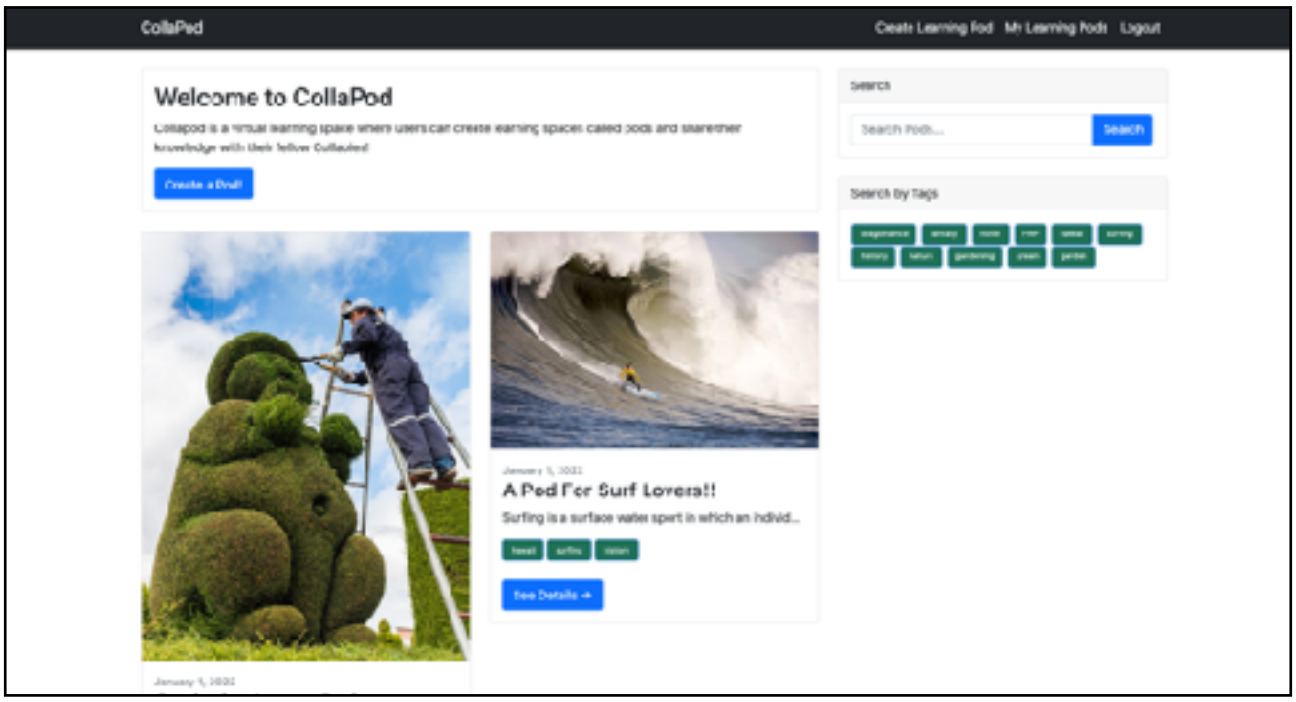

Once “Register” button in navigation bar clicked user will be prompted to sign up page. By giving his/her basic credentials he/she will be able to sign up to the CollaPod



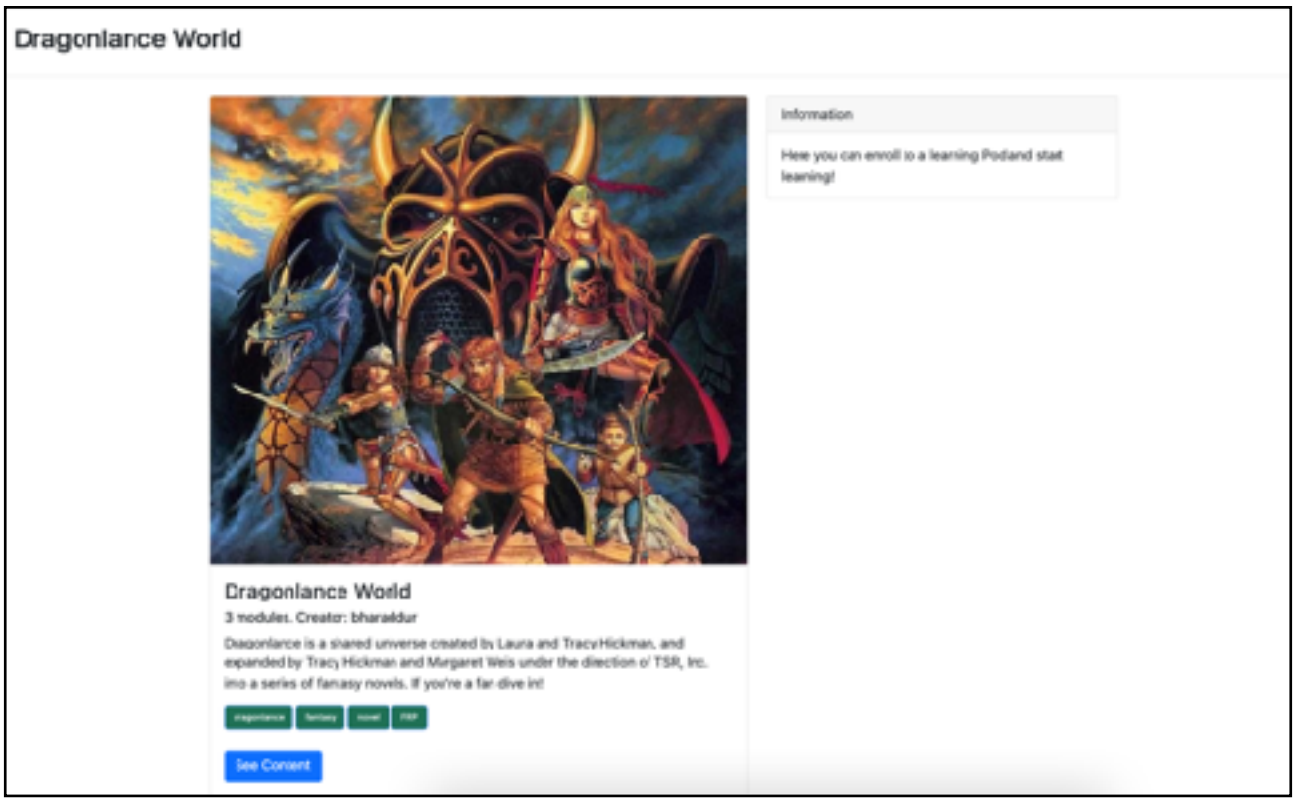
Once the user is is signed up system will prompt user to “My Learning Pods” page. As it appears there is no Pods yet.


## 6.2.2 Joining to a Learning Pod

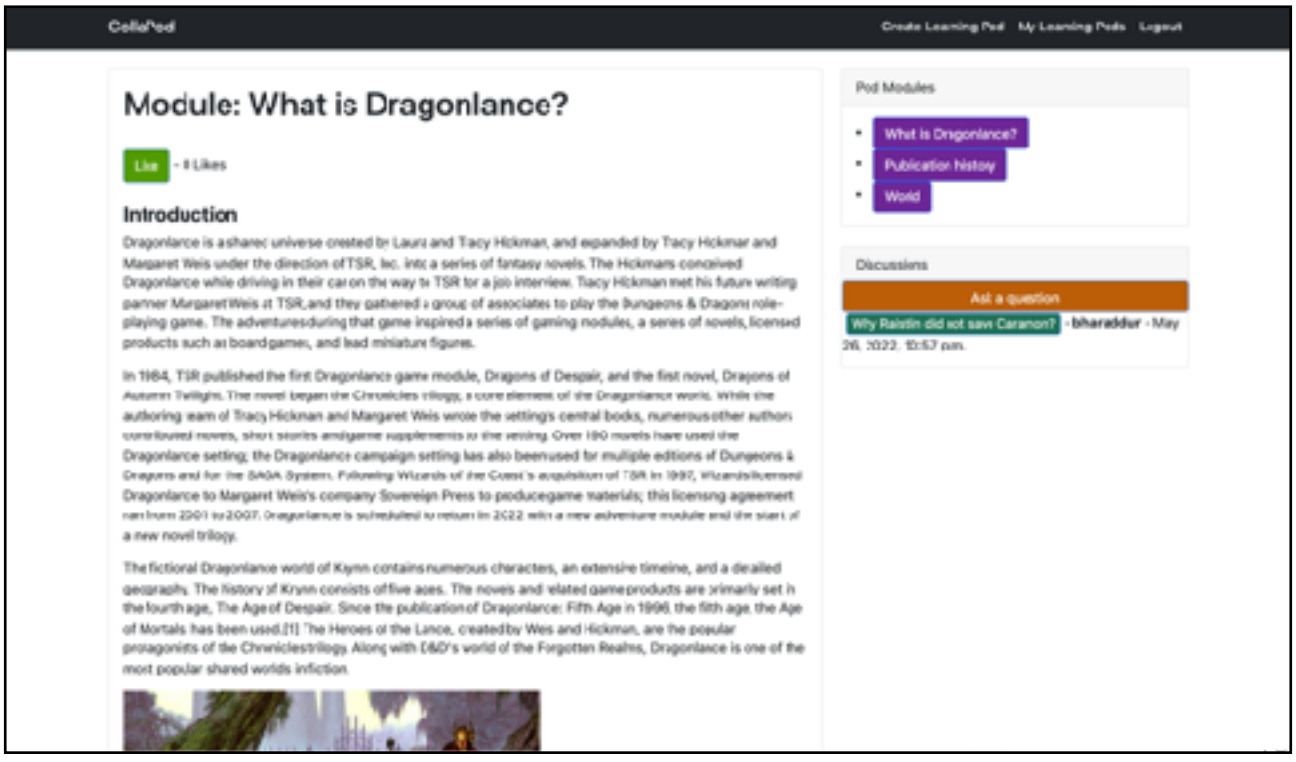
In order to join any pod user can navigate to main page. Since the user is logged in, navigation bar is changed and button names are changed as well.



By clicking “See Details” user can access the overview page of a learning pod. If a user clicks on “See Content” system will automatically enroll this user to the relevant Learning Pod and this learning pod will be appearing in “My Learning Pods” as well.

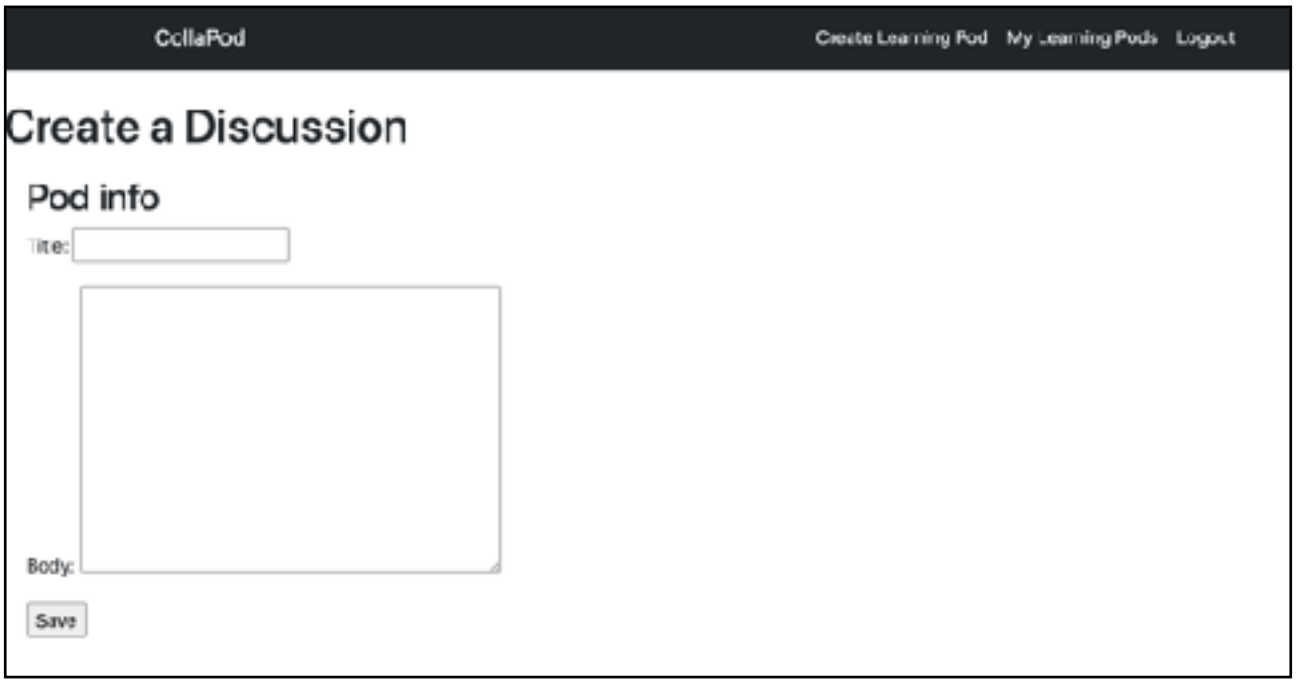



After clicking “See Content” users will be able to see Pod content in structured manner. In below Pod what user is seeing is the first module of “Dragonlance World” pod. Here user can like this course and choose module by clicking purple buttons to access module specific content. Also user can start a discussion by asking question.

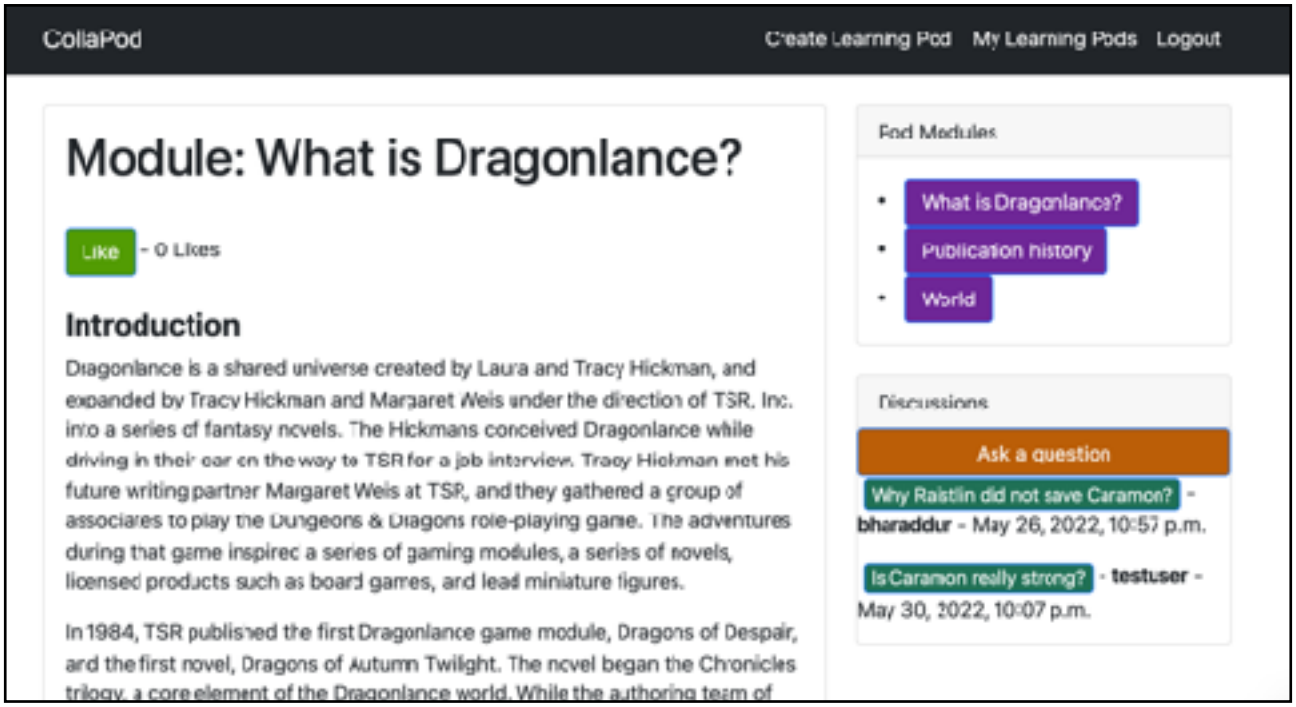


### 6.2.3 Creating a Discussion in Learning Pod

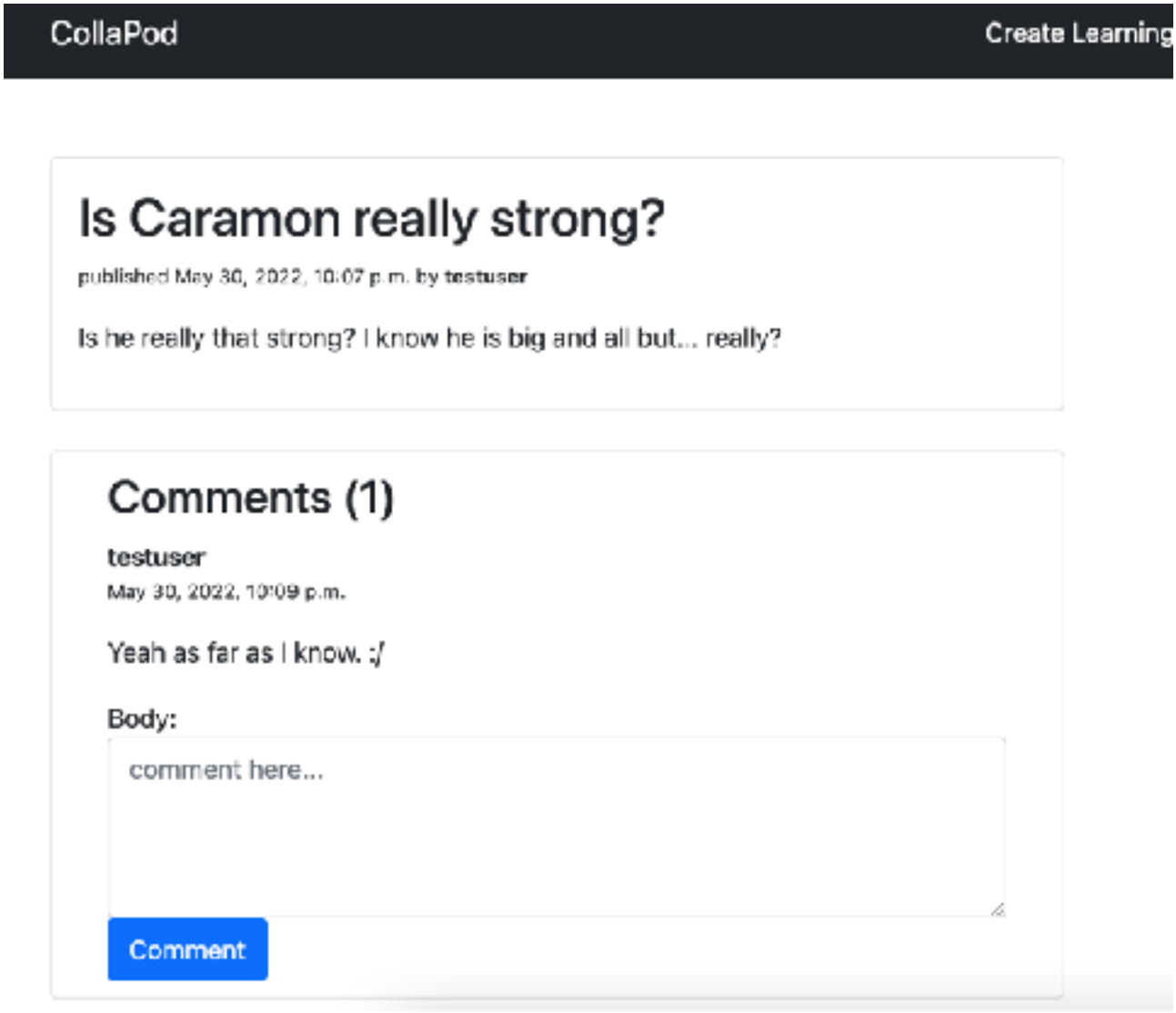
Once a user clicks on “Ask a question” button he/she will be prompted to discussion form. Here he/she can give a title to this thread and give details about it.




User will be prompted to Pod content page once he/she clicked on Save button and will be able to see the discussion title in the content page.

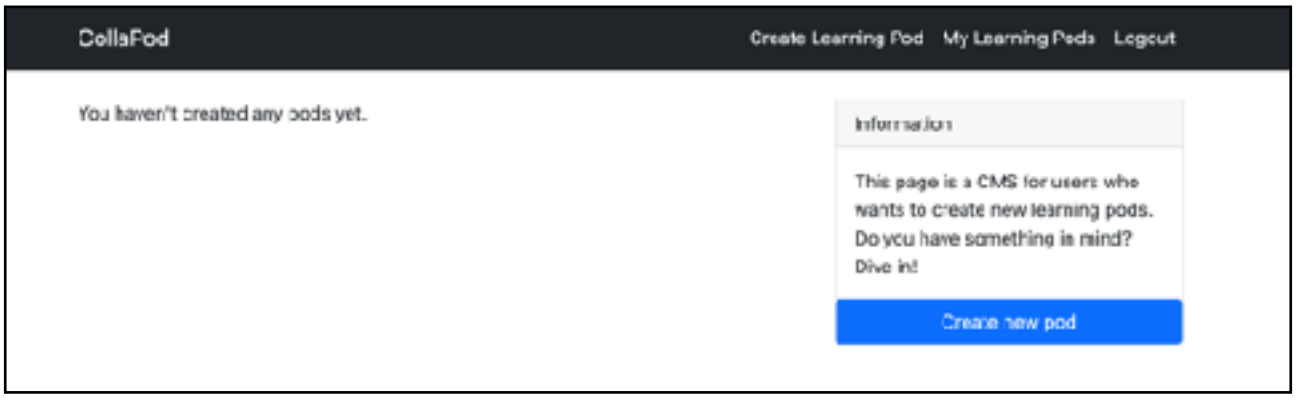


By clicking the discussion title he/she will  be able to comment in discussion.

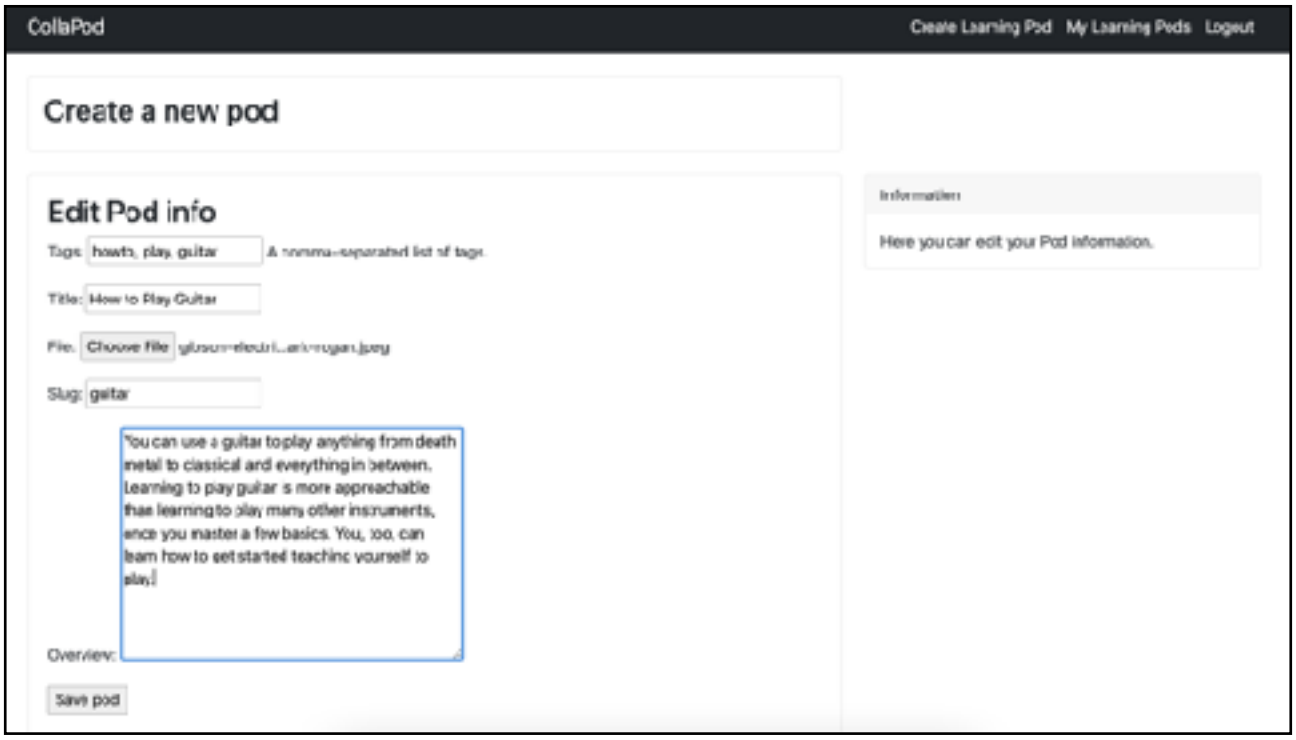



## 6.2.4 Creating a Learning Pod

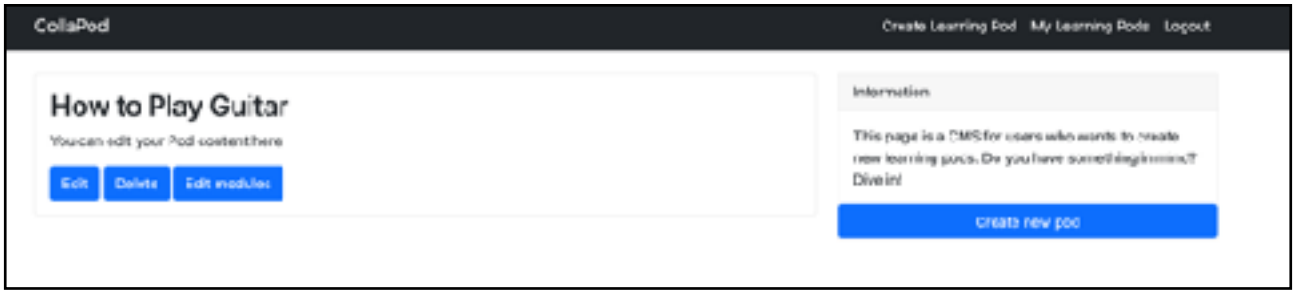
Users can also create their own Pods. In order to do that “Create Learning Pod” button in navigation bar can be clicked. In this page users can create a pod by clicking on “Create new pod"



After clicking “Create new pod” user will be prompted to pod creation screen. User can enter comma separated tags, title, a header picture and a overview text.




Once user click on “Save Pod” button, he/she will be prompted to “Create Learning Pod” page and will see the newly created pod without modules or content.




In order to continue with the creation of the pod user needs to click on “Edit modules” button. Once he/she click on system will prompt to module creation page. By default system gives 2 modules to edit. If a user wants to create more than 2 modules he/she can click save and 2 more modules will be added in the next round.

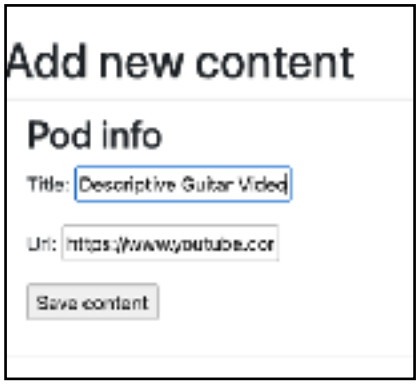
Once user click o “save pod” button system will prompt user to “Create Learning Pod” page once again but this time “Manage Content” will be available


By clicking “Manage Contents” user will be finally able to add content. In content creation page modules will be available and users will be able to add content by clicking the content type.


Image content creation (local image file needs to be selected by clicking “Choose File”)

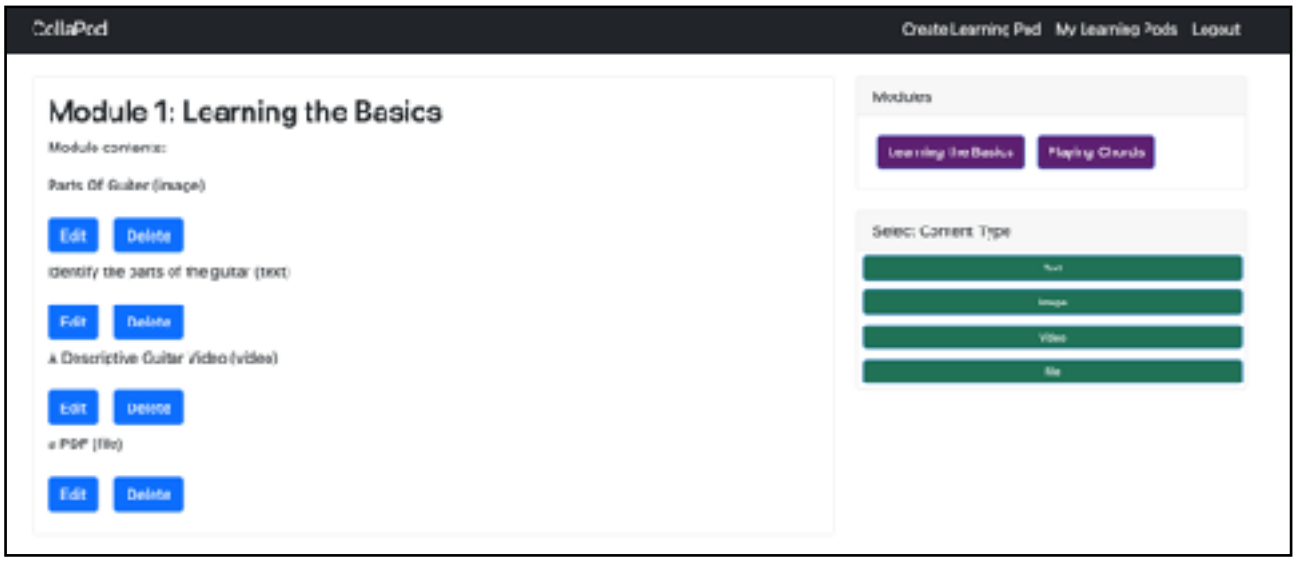

Text Content Creation

Video Content Creation

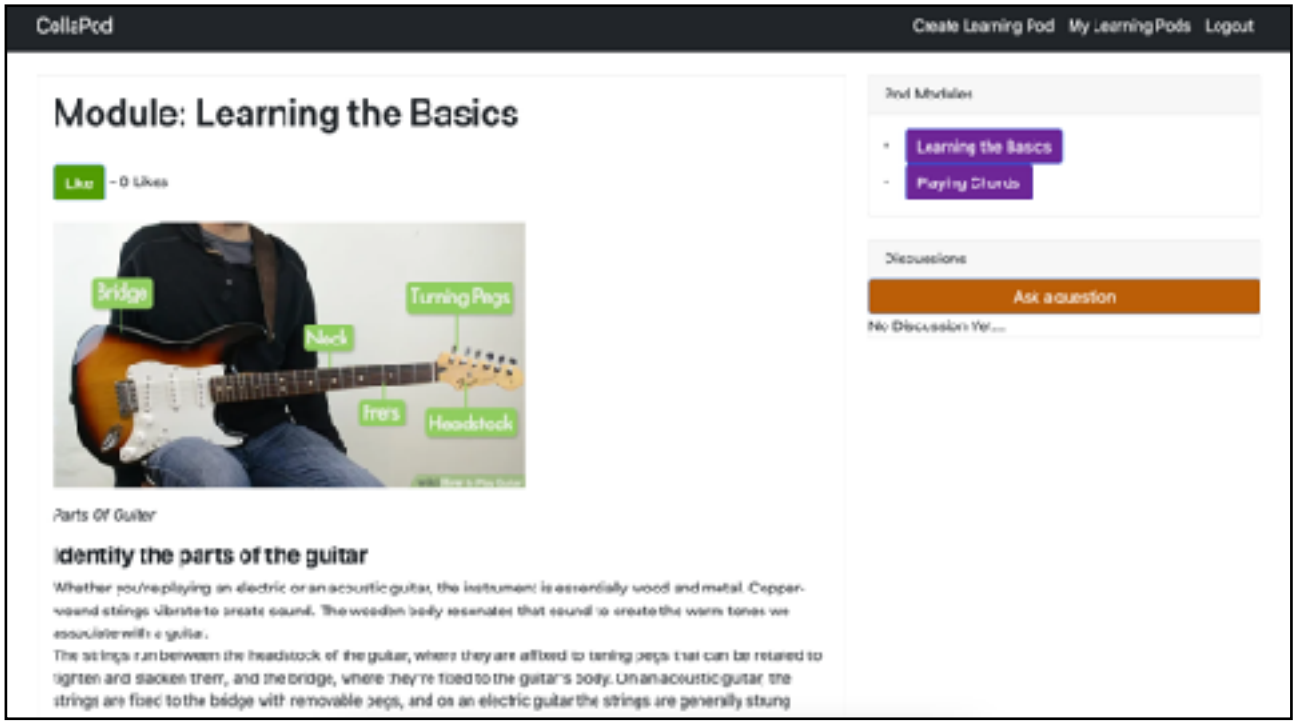



File Content Creation (local file needs to be selected by clicking “Choose File”)

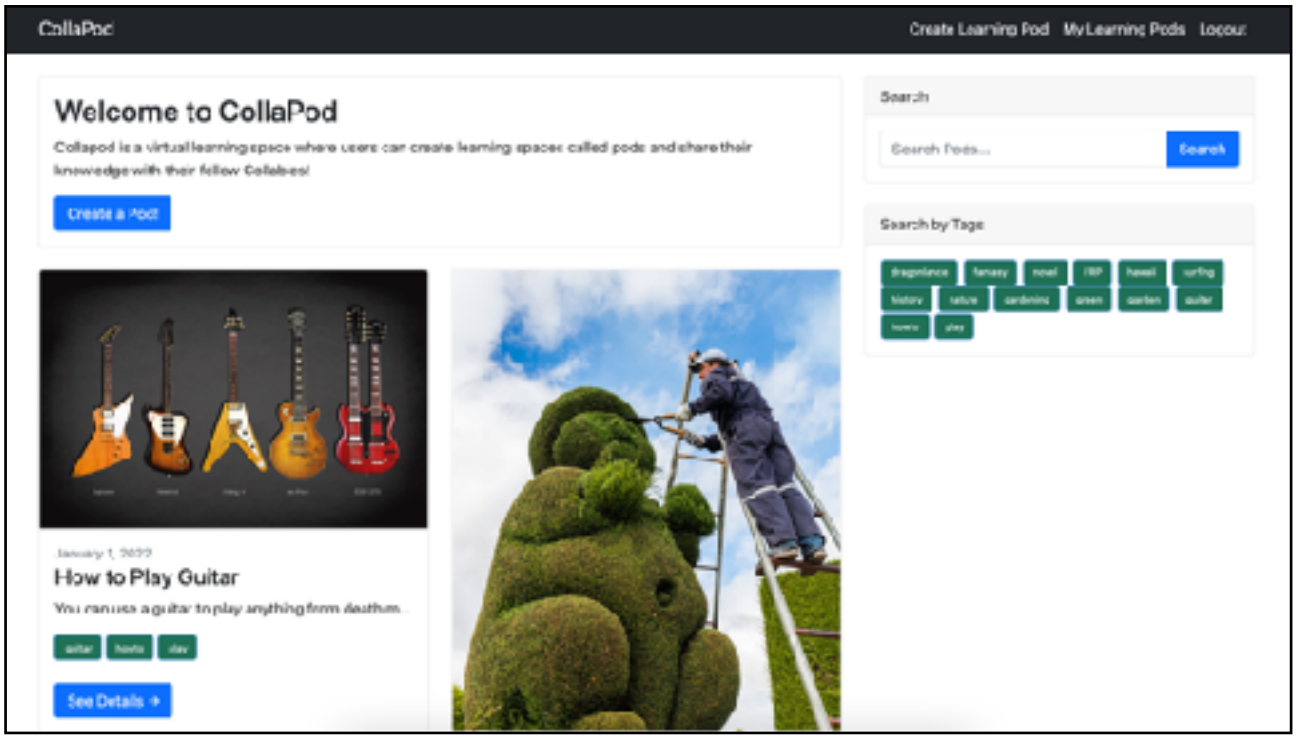

Contents are created and can be seen in listed manner.



And the content will be as follows;




After the creation of the Pod. It will appear in the main page.



# 7. Test Results

Only manual tests are done during development of this project.

# 8. References

During this project development there were several open source tutorials and sources has been used. The list of them as follows;

Codemy / Django Wednesdays Series in Youtube : URL
Programming With Mosh / Django Tutorial For Beginners: URL
TestDriven.io / Dockerizing your Django App: URL
VeryAcademy / How to Dockerize a Django application (Beginners Guide): URL
DigitalOcean / Deployment Tutorial: URL
Selmi Tech / Build A Blog With Django: URL
W3schools / Used free css templates and tutorials: URL
freeCodeCamp.org / Git and GitHub for Beginners - Crash Course: URL