

## IT262 : WEB TECHNOLOGIES LAB

Topic : Course Content Management System

Group 13 :

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## **Brief about the website :**

- Coursent is a course content management system. It is an online learning platform used either to provide a digital supplement for a traditional classroom that meets regularly in person or to host an online course over the internet.
- Here a user can create a new course as well as view other courses. Every course created will follow a week-wise schedule for updates regarding any course, which would be visible in the course stream section. Also every course has its attached discussion channel where any student following the course can resolve his/her doubts parallelly with the course creator. Furthermore a user can also upload videos or pdf resources weekly.
- It provides google based sign in/login feature for ease of access and user security. The website model is thus divided into two parts : guest and authorized user. If a user is logged in he/she can view all the pages and can make full use of all the features of the website. However a user can still view the created courses and get the overview of the website without signing in.
- The database part involves users, sessions and courses. Everytime a new user signs in his/her information would be updated into the database in the user schema. We have also implemented sessions so that a user can stay logged in whenever he visits the website again. The sessions of each user are stored in the sessions schema of the database. Everytime any user creates a new course, all the details regarding that particular course with the user id will be saved in the courses schema of the database.

## **Web pages :**

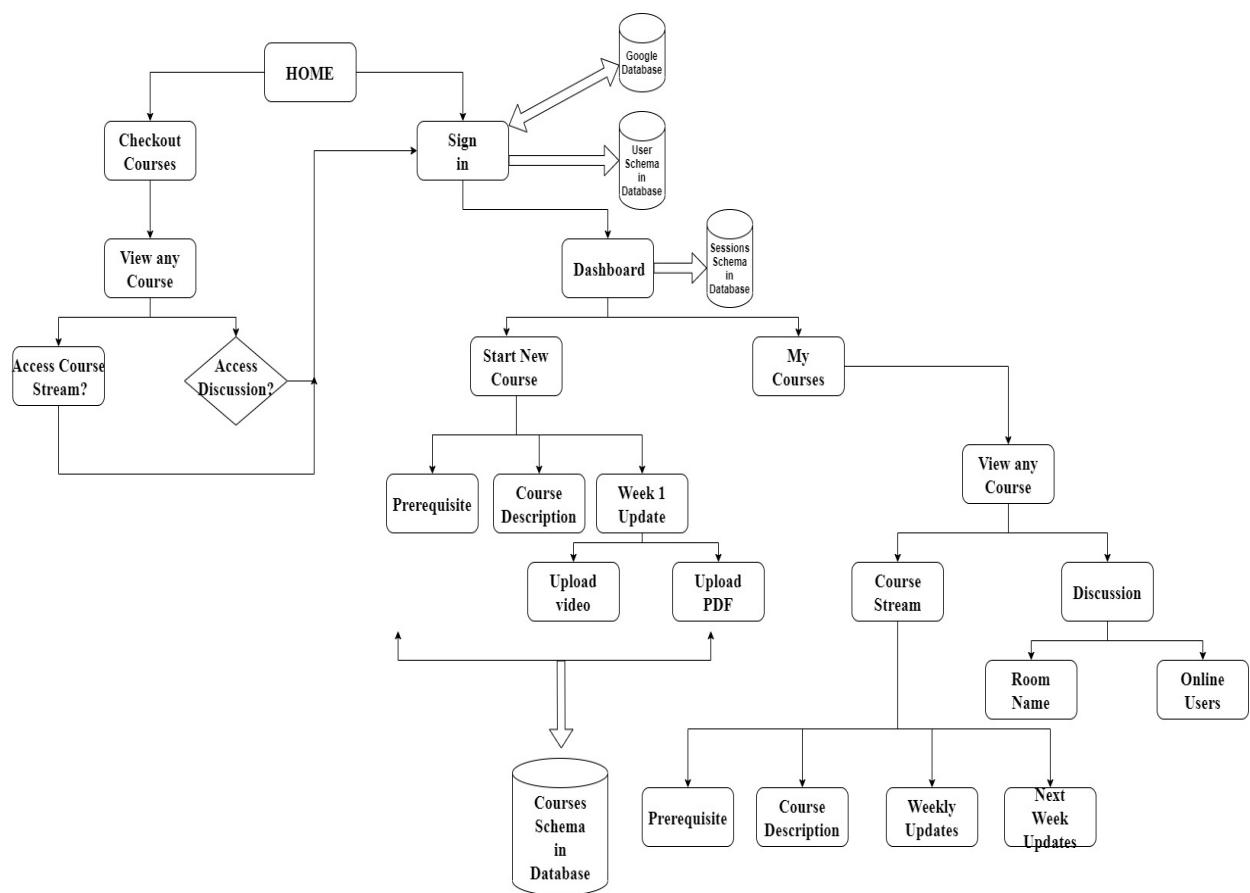
### Pages that are visible without signing in :

- Home : Guest user
- Google Sign In page
- Check Out Courses : Guest user

### Pages that are visible after signing in :

- Dashboard
- Home : Authorized user
- Check Out Courses : Authorized user
- Start New Course
- Course Stream : For course creator
- Course Stream : For course viewers
- Discussion Room
- Error Handling
  - 404 : Page not found
  - 500 : Server error

## Flow diagram :



# Home : Guest user

The screenshot shows the Coursent home page. At the top, there's a navigation bar with links like 'Home', 'Sign In with Google', 'Check out courses!', and a search bar. The main heading 'YOUR COURSE TO SUCCESS' is prominently displayed. Below it is a 'Sign In with Google' button. To the right, there's a large illustration of two people interacting with a computer screen that shows a live video call interface. Below the illustration, the text 'Achieve heights with Coursent' is centered. At the bottom, there are four circular icons with symbols: a plus sign, a list, a speech bubble, and an upward arrow.

This screenshot is similar to the one above but focuses on the bottom navigation area. It shows the same four circular icons with symbols: a plus sign, a list, a speech bubble, and an upward arrow. Below each icon is a label: 'Start a new Course', 'Course Stream', 'Discussion Box', and 'Upload resources'. The rest of the page content is identical to the first screenshot.

## About

Coursent is a course content management system. It is an online learning platform used either to provide a digital supplement for a traditional classroom that meets regularly in person or to host an online course over the internet. Here a user can create a new course as well as view other courses. Every course created will follow a week-wise schedule for updates regarding any course, which would be visible in the course stream section. Also every course has its attached discussion channel where any student following the course can resolve his/her doubts parallelly with the course creator. Furthermore a user can also upload videos or pdf resources weekly. It provides google based sign in/login feature for ease of access and user security. The website model is thus divided into two parts : guest and authorized user. If a user is logged in he/she can view all the pages and can make full use of all the features of the website. However a user can still view the created courses and not the overview of the website without signing in. The database part

localhost:3000

(\*) One can view all the pages and can make full use of all the features of the website. However a user can still view the created courses and get the overview of the website without signing in. The database part involves users, sessions and courses. Everytime a new user signs in his/her information would be updated into the database in the user schema. We have also implemented sessions so that a user can stay logged in whenever he visits the website again. The sessions of each user are stored in the sessions schema of the database. Everytime any user creates a new course, all the details regarding that particular course with the user id will be saved in the courses schema of the database.

## Group Members



Anuj Pillai  
201952205



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Group Number : 13

## Google Sign In page :

accounts.google.com/o/oauth2/v2/auth/oauthchooseaccount?response\_type=code&redirect\_uri=http%3A%2F%2Flocalhost%3A3000%2Fauth%2Fgoogle%2Fcallback&scope=profile&c...

Choose an account  
to continue to coursent

**Anuj Pillai**  
anujpillai1201@gmail.com

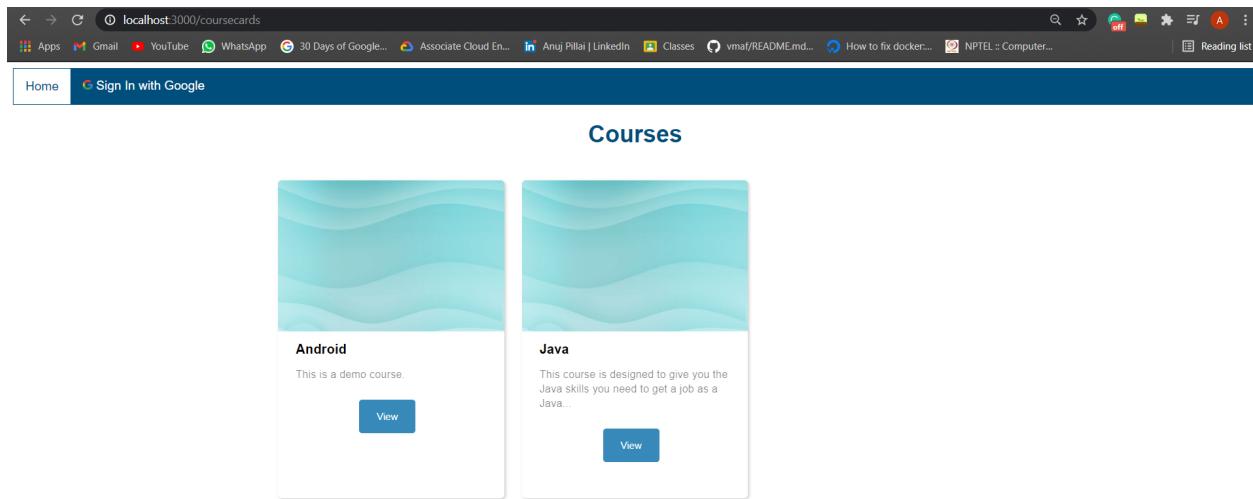
**201952205 ANUJ MOHAN PILLAI**  
201952205@liltvadodara.ac.in

Use another account

To continue, Google will share your name, email address, language preference, and profile picture with coursent.

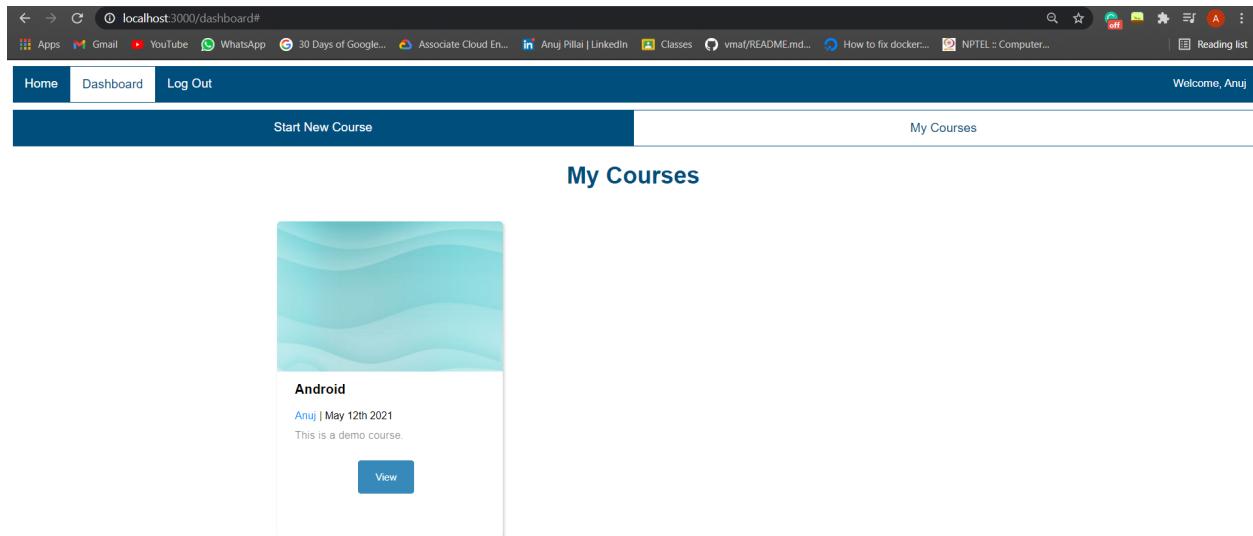
English (United States) ▾ Help Privacy Terms

# Check Out Courses : Guest user



A screenshot of a web browser window titled "localhost:3000/coursecards". The page displays two course cards side-by-side. The left card is for "Android" and the right card is for "Java". Both cards feature a blue wavy background image. The "Android" card has the text "This is a demo course." and a "View" button. The "Java" card has the text "This course is designed to give you the Java skills you need to get a job as a Java..." and a "View" button. At the top of the browser window, there are various icons and links for Google services like Apps, Gmail, YouTube, WhatsApp, etc.

# Dashboard



A screenshot of a web browser window titled "localhost:3000/dashboard#". The page shows a "Start New Course" button on the left and a "My Courses" section on the right. The "My Courses" section contains one course card for "Android", which includes the author "Anuj" and the date "May 12th 2021". The card also says "This is a demo course." and has a "View" button. The top of the browser window shows a navigation bar with "Home", "Dashboard", and "Log Out" buttons, and a welcome message "Welcome, Anuj".

# Home : Authorized user

The screenshot shows the Coursent home page. At the top, there is a navigation bar with links for Home, Dashboard, and Log Out. Below the navigation bar, the main heading reads "YOUR COURSE TO SUCCESS" with a "Check out courses!" button. To the right of the heading is a cartoon illustration of a person sitting at a desk, looking at a laptop, while another person stands behind a large screen displaying a video call interface labeled "LIVE". Below this section is a light blue banner with the text "Achieve heights with Coursent" and four circular icons representing different features: a plus sign, a list, a speech bubble, and a pencil.

# Check Out Courses : Authorized user

The screenshot shows the Coursent course cards page. At the top, there is a navigation bar with links for Home, Dashboard, and Log Out. Below the navigation bar, the heading "Courses" is displayed above four course cards. The first card is for "Android" (May 12th 2021), described as a demo course, with a "View" button. The second card is for "Python" (May 12th 2021), described as an interpreted high-level general-purpose programming language, with a "View" button. The third card is for "Web Development" (May 12th 2021), described as introducing students to planning, with a "View" button. The fourth card is for "Java", which is partially visible. Each card has a blue wavy background and a "View" button at the bottom right.

# Start New Course

localhost:3000/addcourse

Home Dashboard Log Out

Start New Course My Courses

**Course Name**

**Course Description**

**Prerequisite**

localhost:3000/addcourse

Home Dashboard Log Out

Start New Course My Courses

**Prerequisite**

**Week 1**

Add Video :  No file chosen

Add PDF :  No file chosen

# Course Stream : For course creator

localhost:3000/coursestream/609b898b59ae71253488dc34

Home Dashboard Log Out Welcome, Anuj

Stream Discussion

# Android

**Prerequisite :**

This is a demo course.

localhost:3000/coursestream/609b898b59ae71253488dc34

Home Dashboard Log Out Welcome, Anuj

Stream Discussion

# Android

**Prerequisite :**

This is a demo course.

---

**Course Description :**

This is a demo course.

---

**Week 1 :**

week 1 tasks.

[Get Video](#) [Get PDF](#)

Add

[localhost:3000/coursestream/609b898b59ae71253488dc34](http://localhost:3000/coursestream/609b898b59ae71253488dc34)

Week 1 :

week 1 tasks.

[Get Video](#) [Get PDF](#)

Week 2 :

week 2 tasks

[Get Video](#) [Get PDF](#)

Week 3 :

week 3 tasks

[Get Video](#) [Get PDF](#)

[Add](#)

## Course Stream : For course viewers

[localhost:3000/Usercoursestream/609b898b59ae71253488dc34](http://localhost:3000/Usercoursestream/609b898b59ae71253488dc34)

Welcome, Anuj

Home Dashboard Log Out

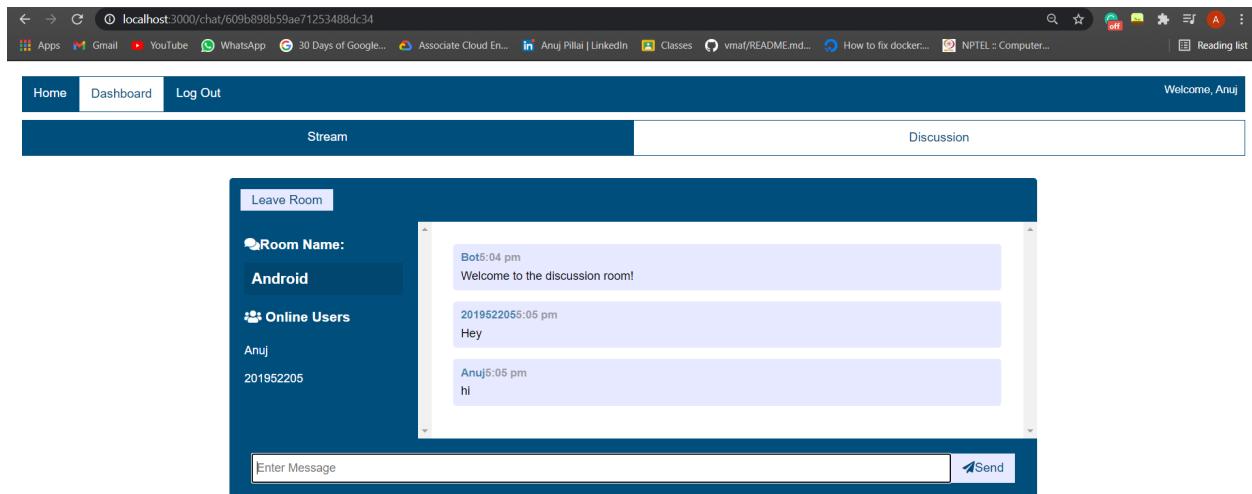
Stream Discussion



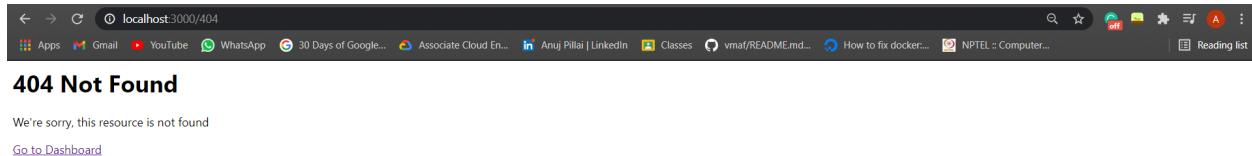
### Prerequisite :

This is a demo course.

# Discussion Room



## Error Handling : 404 : Page not found



# 500 : Server error



## Server Error

We're sorry, something went wrong

[Go to Dashboard](#)

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## Database :

- User
- Sessions
- Courses

## Database

The screenshot shows the MongoDB Atlas interface for the 'myFirstDatabase'. On the left sidebar, under 'Project-01', there are sections for 'Data Lake', 'SECURITY', 'Database Access', 'Network Access', and 'Advanced'. The 'Collections' tab is selected in the top navigation bar. Below it, the database 'myFirstDatabase' is selected, showing '1 DATABASES' and '3 COLLECTIONS'. The collections listed are 'courses', 'sessions', and 'users'. A table provides detailed statistics for each collection:

Collection Name	Documents	Documents Size	Documents Avg	Indexes	Index Size	Index Avg
COURSES	4	3.28KB	841B	1	36KB	36KB
SESSIONS	7	1.37KB	201B	2	72KB	36KB
users	9	2.37KB	270B	1	36KB	36KB

At the bottom of the page, there are links for 'System Status: All Good', 'Feature Requests', and social media icons.

# User Schema

The screenshot shows the MongoDB Cloud interface for the 'myFirstDatabase.users' collection. The collection has a size of 2.37KB, 9 documents, and 36KB of indexes. A search bar contains the filter '{ "filter": "example" }'. The results show two documents:

```
_id: ObjectId("608b06b7c346c502b42d2a2a")
googleId: "103593532883444183"
displayName: "Anuj Pillai"
firstName: "Anuj"
lastName: "Pillai"
image: "https://lh3.googleusercontent.com/-upI6_VaEx3Q/AAAAAAA... "
createdAt: 2021-04-29T19:44:57.472+00:00
__v: 0

_id: ObjectId("60955d74e4e9002c2e3a51")
googleId: "1110869178684412482"
displayName: "201952205 ANUJ MOHAN PILLAI"
firstName: "201952205"
lastName: "ANUJ MOHAN PILLAI"
image: "https://lh3.googleusercontent.com/a/ATXAJzsqV2h0ZauWzfsurff1vNtyXh... "
createdAt: 2021-05-07T14:58:58.584+00:00
__v: 0
```

# Sessions Schema :

The screenshot shows the MongoDB Cloud interface for the 'myFirstDatabase.sessions' collection. The collection has a size of 1.37KB, 7 documents, and 72KB of indexes. A search bar contains the filter '{ "filter": "example" }'. The results show three sessions:

```
_id: "7MlyrJHchkaezCu50)Ct9Ao9PTuIQdP"
expires: 2021-05-26T11:36:00.663+00:00
session: {"cookie": {"originalMaxAge": null, "expires": null, "httpOnly": true, "path": "..."}}

_id: "TrPYBwob07F0jQ-0mNHUBoZEJN4k32"
expires: 2021-05-23T08:55:44.662+00:00
session: {"cookie": {"originalMaxAge": null, "expires": null, "httpOnly": true, "path": "..."}}

_id: "RnVkb7Fa7jyglmPH2-Vlwh8ByLu75DU"
expires: 2021-05-25T12:13:37.554+00:00
session: {"cookie": {"originalMaxAge": null, "expires": null, "httpOnly": true, "path": "..."}}
```

# Courses Schema :

The screenshot shows the MongoDB Atlas interface for a database named 'myFirstDatabase'. The 'courses' collection is selected. The interface includes a sidebar with security settings and a main area for querying documents. Two documents are listed:

```
_id: ObjectId("600b7263fb10134988ac954b")
fileName: ""
courseName: "Java"
courseDescription: "<p>This course is designed to give you the Java skills you need to get...""
coursePrerequisite: "<p>A computer with either Windows, Mac or Linux to install all the fre...""
courseWeek1: "<p>Every line of code that runs in Java must be inside a<br>class. I...""
user: ObjectId("60055302d74eeb0c2e3a51")
createdAt: 2021-05-12T06:14:59.102+00:00
__v: 0
```

```
_id: ObjectId("600b990b59ae71253488dc34")
fileName: "1. Introduction To The Course.mp4"
pdfName: "agreement.pdf"
courseName: "Android"
courseDescription: "<p>This is a demo course.</p>"
coursePrerequisite: "<p>This is a demo course.</p>"
```

**Website developed using :**

**Frontend :**

- Handlebars(HTML Template Engine)
- CSS
- Javascript

**Backend :**

- Node.js

**Database :**

- MongoDB

**Full source code uploaded on github :**

<https://github.com/anuj-2001/Coursent>

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