

TEACHER MANAGEMENT SYSTEM AND CONTENT MANAGEMENT SYSTEM (Internship)

A report submitted to the Rajiv Gandhi University of Knowledge Technologies in partial fulfilment of the degree of Bachelor of Technology in Computer Science.

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CERTIFICATE FOR PROJECT COMPLETION

This is to certify that the report entitled “ **INTERNSHIP REPORT ON TEACHER MANAGEMENT SYSTEM AND CONTENT MANAGEMENT SYSTEM**” submitted by P.Anitha(R171019), under our guidance and supervision for the partial fulfillment for the degree Bachelor of Technology in Computer Science and Engineering during the academic semester -2 2021-2022 at RGUKT, RK VALLEY. To the best of my knowledge, the result embodied in this dissertation work have not been submitted to any University or Institute for the award of any degree or diploma.

Project Internal Guide

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DECLARATION

I hereby declare that this report entitled **“INTERNSHIP REPORT ON TEACHER MANAGEMENT SYSTEM AND CONTENT MANAGEMENT SYSTEM”** submitted by us under the guidance and supervision of P.Udaya Sree is a bonafide work. We also declare that it has not been submitted previously in part or in full to this University or other University or Institution for the award of any degree or diploma.

Date:
Place: RK Valley

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With Sincere Regards,
P.Anitha—R171019

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ABSTRACT

The aim of this project report is to give a brief idea on how Turito and most other e-learning platforms insert, update, manage and manipulates their bulk content using CMS platform and how they organise and manage their teacher-student realtions and primarily teachers data using a TMS platform. At the end how the code is deployed into the different environments like development environment which the developers use to test themselves and the test environment which the testing team uses to test the application against the requirements document.

1.Introduction

TMS:

The Teacher's Management System is the essential digital platform **for organizing teaching activities**. It helps in planning sessions, recording student's information and it generates performance reports with just a click.

It is also considered to be a dynamic system that **enables teachers to stay involved in each student's progress every step of the way**, informing teacher instruction and guiding differentiated learning.

CMS:

Content Management System(CMS) for the website **allows us to have control of our website content**. It means having the ability to update, change or delete any images, text, video, or audio. It allows us to keep our site organised, up to date and looking great. So many websites never review their content after launch.

A CMS solution is a better option if you're creating a large website with multiple pages, or if you plan **to make changes or additions to your website down the line**. That's because a CMS will make it easier to do things like edit existing pages, publish new pages, add an online store, create web forms and so forth.

JENKINS:

Jenkins is an open source automation server.

Jenkins facilitates **to continuous integration and continuous delivery in software projects by automating parts related to build, test, and deployment**. This makes it easy for developers to continuously work on the betterment of the product by integrating changes to the project.

Jenkins is used to build and test your software projects continuously making it **easier for developers to integrate changes to the project, and making it easier for users to obtain a fresh build**.

Tools Used:

Eclipse

Visual Studio Code(VS code)

Jenkins

Technologies: Angular, Scala, Akka framework

2.TMS

2.1 Personalised Class Tracker

Description: Personalised Class Tracker in tms(teacher management system) platform is to display all the one-on-one(personalised) classes on a particular date.

Process flow:

In the **Personalised Classes Tracker**, we added the following features,

1. Date filter (yesterday, today, tomorrow and a date-picker calendar to select any date)
2. time range select slider
3. teacher search bar using class id
4. teacher search bar using name/ID
5. filters like Class status(Completed, Cancelled, Rescheduled) and Recording Status(Enabled, Disabled)
6. Tabular view with the following columns:

- Class ID
- Class name
- Start time
- End time
- Status(class started or not-started)
- Closing status(completed, cancelled or rescheduled)
- Provider(whiteboard if the class is offline, zoom if the class in zoom)
- Region

The screenshot displays the Turito Teacher Management System (TMS) interface. The top navigation bar includes the Turito logo, an 'Add New Student' button, a search bar, and a user profile for 'MUKLP Counsellor'. The left sidebar contains a menu with options like 'Classes Status', 'Counsellor Activity', 'Teacher Acceptance', 'Courses', 'Group Courses', 'Personalised Courses', 'Class Tracker', 'Demos', 'Users', 'Question Bank', and 'TMS Users & Roles'. The main content area is titled 'Class Tracker' and features a date filter (set to '23 March 2022'), a time range slider (00:00 to 23:59), and search filters for 'Class Status' and 'Recording Status'. A table lists class details, including Class ID, Class Name, Start Time, End Time, Status, Closing Status, Provider, Region, Course, and Subject. The table shows three classes: 'Series Class 5th M' (Completed), 'Class 08' (Completed), and 'Series Class 44' (Cancelled). A 'Completed' tooltip is visible over the second class.

Class ID	Class Name	Start Time	End Time	Status	Closing Status	Provider	Region	Course	Subject
3637	Series Class 5th M	23 Mar 2022 06:31 AM	23 Mar 2022 07:00 AM	Completed		Zoom	US Region	Course personalize...	Physics
9307	Class 08	23 Mar 2022 11:55 AM	23 Mar 2022 12:55 PM	Completed		Zoom	US Region	Course personalize...	Physics
7741	Series Class 44	23 Mar 2022 06:31 PM	23 Mar 2022 07:31 PM	Cancelled	Teacher's Side	Zoom	US Region	personalized Cours...	Physics

2.2 Create and Edit Student

Description: In Add student Page we create a form having fields related to student details. Some are mandatory fields to create a student under TMS. Some are optional for other purposes. Parents also able to view their child progress. So, we are linking parent account to student account. We collect all the data and store it in database.

Process Flow:

Inside the Home page select Add student Button, added the following:

- Student Details
- Region
- Parent Details (Optional)
- Grade
- Time Zone

turito

+ Add New Student Search student...

Harinath Counsellor

Add New Student

Student Details

Student Name

Grade

Grade 1

Gender

Gender

Student Email

Enter student mail

Student Mobile

+91 Enter mobile number

User Name

Region

Country

India

State

Parent Details

Parent Name

☐ Use Student's email and mobile number

Email

Mobile

+91

City

City Name

Time Zone

2.3 Ask A Tutor:

Description: In Ask A Tutor tab We can schedule Expert Session Streams to a Student. By Selecting Add Expert Stream We can schedule a Session with a tutor for a child by adding required fields .

Process Flow:

In the ask a tutor tab we can select Add new Expert session stream, add the following fields.

- Name of the Session
- Code
- Description
- Sequence Number
- Is Active

The screenshot shows a web browser window with the URL `52.66.18.108:8099/home/ask-a-tutor/stream/add/new`. The page is titled "Add New Ask A Tutor Stream". On the left is a sidebar menu for the "turito" application, with "Ask A Tutor" selected. The main form contains the following fields:

- Name ***: A text input field with the placeholder "Name".
- Code ***: A text input field with the placeholder "Code".
- Description**: A text area with the placeholder "Description".
- Seq No ***: A text input field with the placeholder "Seq No" and a dropdown arrow.
- Is Active ***: A radio button group with "Yes" (selected) and "No" options.

At the bottom right of the form are "Save" and "Cancel" buttons. The user's name "anitha" is visible in the top right corner of the page.

2.4 Course Management:

In TMS home page we will find a Course Management tab in that we can select the Course operations. The main function is to operate and handle all the course operations that are provided by the platform. The Course Management is to Add streams and courses that has been offered on e-learning platform and in that courses we have subjects and in the subjects we have content to be viewed in the particular subject.

Process Flow:

- Master Stream
- Master Course
- Course
- Subjects
- Content

The screenshot displays the YuppTV Education CMS interface in a Firefox Web Browser. The browser's address bar shows the URL `52.66.18.108:8099/home/courses/iltutions/physicsmarathon`. The page features a sidebar menu on the left with various navigation options, including Platform Operations, Content Management, Course Management, Education Platform, Education Content, Promo Events, Demo Booking, Ask A Tutor, Notifications, Admin Users, FeedBack, and School Management. The main content area is titled 'Courses' and includes a '+ Add Course' button. Below this, a table lists course details. The table has columns for Id, Name, Code, Master Code, Course type, Status, Sub Status, Enrollment Status, Packages, Notifications Settings, Session Timings, Session WeekDays, and Session Count. A single record is visible with Id 1417, Name Physics, Code [physics](#), Master Code physicsmarathon, Course type Public, Status In-progress, Sub Status not-started, Enrollment Status not-started, Packages [Packages](#), and Notifications Settings [Notification Settings](#). The table indicates 'Showing 1 to 1 records'. At the bottom right of the main content area, there is a 'Show Applications' button. The browser's status bar at the bottom shows various system icons and the date May 1 09:38.

Id	Name	Code	Master Code	Course type	Status	Sub Status	Enrollment Status	Packages	Notifications Settings	Session Timings	Session WeekDays	Session Count
1417	Physics	physics	physicsmarathon	Public	In-progress	not-started	not-started	Packages	Notification Settings			

Courses:

The screenshot displays the 'Course Details' page in the Turito Education CMS. The left sidebar shows the 'Course Management' menu with options like Course, Subjects, Course Events, Subject Stats, Diagnostic Test, Configurations, Enrolled Students, and Series. The main content area is titled 'Course Details' and contains a grid of input fields for course information. Below this is a 'Course Stats' section with dropdowns for Course Id and No of Students Enrolled.

Field	Value
Name	Physics
Code	physics
Master Course Code	physicsmarathon
Description	Physics Course
Duration	2 months
Enrollment Status	not-started
Starts From	2023/03/02 14:28:00
Ends At	2023/05/18 14:28:00
Type	public
Enable Session Recording	false
Has Diagnostic Tests	false
Personalized	false
Maximum Students	500
Status	in-progress
Geo Rule ID	2
Sub Status	not-started
Sub Title	Electromagnetic Induction.

Course Stats

Course Id: 1417

No of Students Enrolled: 0

Subjects:

In courses we have different Subjects and for each subject we have content.

The screenshot displays the 'Subjects' page in the Turito Education CMS. The left sidebar shows the 'Course Management' menu with options like Course, Subjects, Course Events, Subject Stats, Diagnostic Test, Configurations, Enrolled Students, and Series. The main content area is titled 'Subjects' and contains a table of subjects. A '+ Add Subject' button is visible in the top right corner.

Id	Name	Code	Base Subject Code	Description	Seq No	Active	Actions
2741	Physics	physics	physics	Physics	2	true	Edit View

Showing 1 to 1 records

3. CMS

3.1 Alerts and Recipients

Description: Alerts and Recipients is a Feature used to identify the error or report that occur in backend and send the alerts to the respective recipients who works on it.

There are different types of alerts like daily report, weekly report, monthly report and some technical issues related alerts. Here the main intention of the feature is to send the alert of respective report to the person who works on the report related issues.

Here this is the page we organise alerts related functionalities like.

- Displaying Alerts and its additional fields.
- Add alert.
- Navigate to respective recipients to the alerts.
- Edit the alerts.

The screenshot displays the 'Alerts' management interface in the YuppTV Education CMS. The left sidebar provides navigation options, with 'Alerts' currently selected. The main content area features a table of existing alerts, each with a unique ID, name, code, assigned recipients, periodicity, alert mode, and status. Action icons for editing and viewing details are provided for each alert. A '+ Add New Alert' button is located in the top right corner of the table area. The interface is clean and professional, with a clear focus on managing system alerts.

Id	Name	Code	Recipients	Periodicity	Alert Modes	Is Active	Action
1	Daily Report	daily_report	Recipients	daily	email	true	Edit View
3	Weekly Report	weekly_report	Recipients	weekly	email	true	Edit View
6	Monthly Report	monthly_report	Recipients	monthly	email	true	Edit View
7	Course Alert	course-alert	Recipients	daily	sms	true	Edit View
9	Incident Critical Report	incident_critical_report	Recipients	duration	email	true	Edit View
10	Incident Daily Report	incident_daily_report	Recipients	daily	email	true	Edit View

Showing 1 to 6 records

Recipients:

Description: Recipients page is a where we can see all recipients and their profile details.

Here this is the page we organise Recipients related functionalities like.

- Displaying Recipients and its additional fields.
- Add new recipient.
- Edit the Recipient.

The screenshot displays the 'Recipients' page in the Turito Teacher Management System. The page features a table with the following data:

Id	Name	Email	Mobile Number	Is Active	Action
6	Balaji	balajit@turito.com	91-9885852296	true	Edit View
7	Kusuma		91-9494861950	true	Edit View
10	Ilyas	iliyass@turito.com		true	Edit View
11	Katharnaak	kathar@gmail.com	91-9043454332	true	Edit View
13	rakesh	rakesh@turito.com		true	Edit View

The page also includes a sidebar with navigation options: Metadata, Configurations, Filters, Vouchers, AD Configuration, Roles and Features, Packages, Resource Profiles, Bulk Upload, Alerts (selected), Admin Reports, and Misc. The top bar shows the user 'Roopesh' and a '+ Add New Recipient' button. The bottom status bar indicates the system is running on a 1.01 GHz processor with 1.8 KiB/s and 2.3 KiB/s memory usage.

3.2 Reports:

Description: Whenever a issue or error occurred in live, backend generate an report and store it in database. The generated report have the details like error type , description and group code.

Here this is the page we organise Reports related functionalities like.

- Displaying Reports and its additional fields.
- Add Report Manually.
- Navigate to respective Queries and Parameters to the Reports.
- Edit the Report.

The screenshot displays the 'Admin Reports' section of the Turito CMS. The left sidebar contains a navigation menu with items like Metadata, Configurations, Filters, Vouchers, AD Configuration, Roles and Features, Packages, Resource Profiles, Bulk Upload, Alerts, Admin Reports (selected), Reports, and Misc. The main content area is titled 'Reports' and includes a '+ Add New Admin Report' button. Below this is a table listing existing reports.

ID	NAME	CODE	DESCRIPTION	IS_ACTIVE	ADMIN_REPORT_GROUP_CODE	QUERIES	PARAMETERS
1	report	report	report example	true	other_reports	Queries	Parameters
2	EPG Report	epg_report	report example	true	other_reports	Queries	Parameters
3	OTP Report	otp_report	OTP Report Details	true	user_reports	Queries	Parameters
4	Lecture Channels Report	lecture_channels_report	Lecture Channels Report Details	true	lecture_reports	Queries	Parameters
5	Lectures without videos	lecture_without_videos	Lectures Without Videos Report Details	true	lecture_reports	Queries	Parameters
7	User Packages Without Courses	user_packages_without_courses	User Packages Without Courses Report Details	true	user_reports	Queries	Parameters
10	Teachers Without User Association	teachers_without_user_association	Teachers Without User Association Report Details	true	teacher_reports	Queries	Parameters

4. JENKINS

Jenkins is a server-based system that runs in servlet containers such as Apache Tomcat. It executes repetitive tasks, saves time and optimizes developing processes. Jenkins facilitates to continuous integration and continuous delivery in software projects by automating parts related to build, test, and deployment.

Builds can be triggered by various means, for example:

- A webhook that gets triggered upon pushed commits in a version control system
- Requesting a specific build URL.
- After the other builds in the queue have completed
- Invoked by other builds

The screenshot displays the Jenkins web interface in a Firefox browser. The address bar shows the URL `192.168.74.115:8080/view/YuppMaster/job/Teacher_Application_Portal_Test/385/`. The page title is "Jenkins". The breadcrumb navigation shows "Jenkins > YuppMaster > Teacher_Application_Portal_Test > #385". The main content area displays "Build #385 (Mar 31, 2022 8:28:05 PM)" with a progress bar and status "Started 44 sec ago". The "Changes" section lists "1. image drag issue resolved (details)". The "Started by user" section shows "Srikanth Rahul Lingampally". The "Revision" section shows "933b49c14191d3e40169317f22ceed7ad92ac1ae" and "refs/remotes/origin/teacher_payout". The left sidebar contains links for "Back to Project", "Status", "Changes", "Console Output", "View Build Information", "Parameters", "Git Build Data", and "Previous Build". The footer shows "Page generated: Mar 31, 2022 8:28:50 PM IST" and "Jenkins ver. 2.222.1".

Steps to Deploy Your Code:

1. Login
2. Select the environment
3. Go to parameters
4. Select the branch you want to deploy
5. Progress bar on top right displays the depolying status.

Once the deployment is done, the build/changes can be seen in that respective environment.

Handling errors while deploying build,

If there are errors uncaught by ng-build in local environment, Jenkins could catch such errors too.

Using the below node command we can view the errors,

node --max_old_space_size=8192 'node_modules/@angular/cli/bin/ng' build --prod --build-optimizer

After fixing the errors/bugs, the code becomes a new build and that is deployed through the steps to deploy in the environment.

5. Conclusion

As in the learning process of “Internship report”, we have studied about Angular frameworks, Scala language, Akka framework, Akka Actors and their communication system. We have created and deployed several successful modules in TMS and CMS which could better the utility for the teachers, counsellors in TMS and users of CMS. In future also, the work can be further on enhancing the Turito website focusing on building a strong foundation for academic success while providing a new-age learning platform by integrating the latest technology in teaching methodology.

6. References

<https://www.udemy.com/course/the-complete-guide-to-angular-2/>
<https://www.turito.com/in>
<https://docs.scala-lang.org/>
<https://www.npmjs.com/>
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