

**E-LEARNING SYSTEM FOR DEAF AND MUTE  
STUDENTS THAT REQUIRE ASSISTANCE  
DURING THE LEARNING PROCESS**

2022-276

Log Book

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November 2022

## DECLARATION

We declare that this is our own work, and this document does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any other university or Institute of higher learning and to the best of our knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

Name	Student ID	Signature
Akash Y.A.K.	IT19181820	

Name of supervisor: Ms. Sanjeevi Chandrasiri

Name of co-supervisor: Ms. P.K. Suriya Kumari

## Table of Contents

<b>1. Weekly logs of the project.....</b>	<b>2</b>
<b>2. Screenshot of meetings with supervisors.....</b>	<b>12</b>
<b>3. Screenshots of GitLab.....</b>	<b>14</b>
3.1 Repositories.....	14
3.2 GitLab Project.....	14
3.3 GitLab Graph.....	15
<b>4. Diagram.....</b>	<b>16</b>
4.1 Gantt Chart.....	17
4.2 Work-Break Down Structure.....	18

## 1. Weekly logs of the Project

Training Information For the Month February 2022	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Select a research topic</li> <li>• Check for feasible hardware and software specifications</li> <li>• Identify the technology stack</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Check the novelty of the specific component.</li> <li>• Search through the internet to identify the problems associated with e-learning system for deaf-mute students</li> <li>• Identification of the problems in segments</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Researching about already solved areas associated related to our topic</li> <li>• Identification of my specific problem</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Evaluating the scope with the supervisor and co-supervisor</li> <li>• Project charter submission</li> <li>• Project cover sheet submission</li> </ul>

Training Information For the Month March	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Project proposal submission</li> <li>• Setting up repositories</li> <li>• Setting up the development software's</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Setting up the development software's</li> <li>• Try out sample demos</li> <li>• Proposal report submission</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Setting up the development software's</li> <li>• Try out sample demos</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Try out sample demos</li> <li>• Proposal presentation</li> </ul>

Training Information For the Month April	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Developing the backend for data gathering</li> <li>• Setting up the mongo instance</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Developing the backend for data gathering</li> <li>• Setting up the mongo instance</li> <li>• Developing endpoints for data gathering</li> <li>• API testing</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Developing endpoints for data gathering</li> <li>• API testing</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Developing endpoints for data gathering</li> <li>• API testing</li> <li>• Checking for API issues</li> </ul>

Training Information For the Month May	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Checking for API issues</li> <li>• Collect the data set</li> <li>• Implement the Radom Forest model</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Implement a Radom Forest model</li> <li>• Checking for API issues</li> <li>• Fixing API data retrieving issues</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Fixing API data retrieving issues</li> <li>• Project status document 1 submission</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Fixing API data retrieving issues</li> <li>• Implement the Radom Forest model according to the dataset</li> <li>• Progress presentation 1</li> </ul>

Training Information For the Month June	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Train the model</li> <li>• Start to write the research paper document</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Train the model</li> <li>• Expand the dataset</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• UI implementation</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Submit the research paper</li> </ul>



Training Information For the Month July	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• UI implementation</li> <li>• Backend implementation</li> <li>• Push the changes to the GitLab repository</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Creating parameters to access the endpoints of each component</li> <li>• Go through different research papers</li> <li>• Implement the logic of the research component</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Creating parameters to access the endpoints of each component</li> <li>• Go through different research papers</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Using postman collection to retrieve data</li> <li>• Train the model</li> </ul>

Training Information For the Month August	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Using postman collection to retrieve data</li> <li>• Continue the implementations</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Continue the implementations</li> <li>• Referred some documentation</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Implementing the pipeline to deploy the data</li> <li>• Changing the weights of the model to obtain the highest accuracy - Random Forest</li> <li>• Changing the method of retrieving data from the DB</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Implementing a new transaction pipeline to retrieve data in real-time</li> <li>• Testing the postman collections</li> </ul>

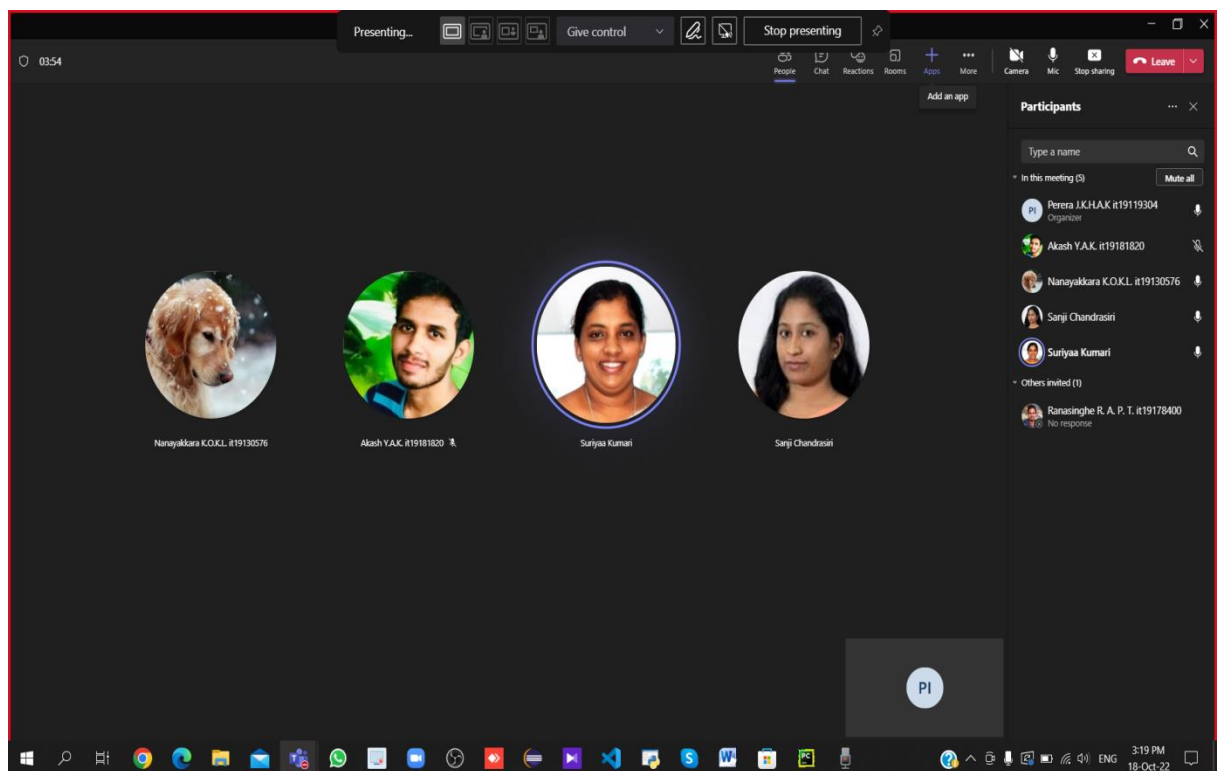
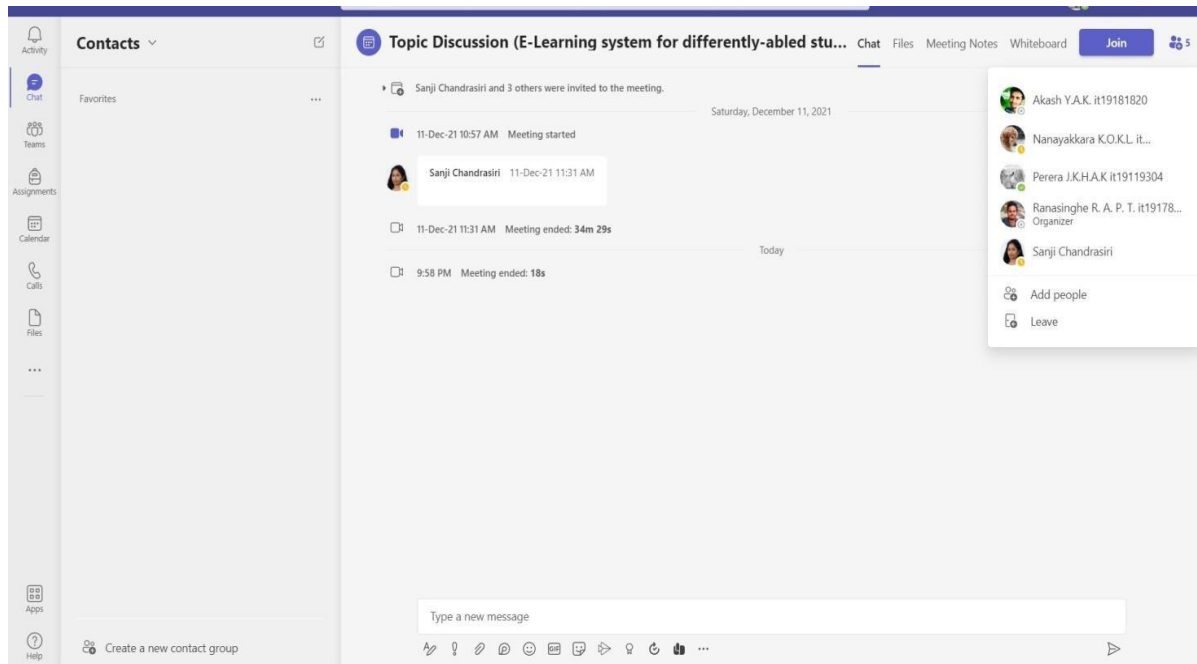
Training Information For the Month September	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Testing the new pipeline with the DB.</li> <li>• Individual report writing</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Group report writing</li> <li>• Doing a unit testing</li> <li>• Doing functional testing</li> <li>• Final report submission</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Continue implementation</li> <li>• Push changes to GitLab repository</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• API testing</li> </ul>

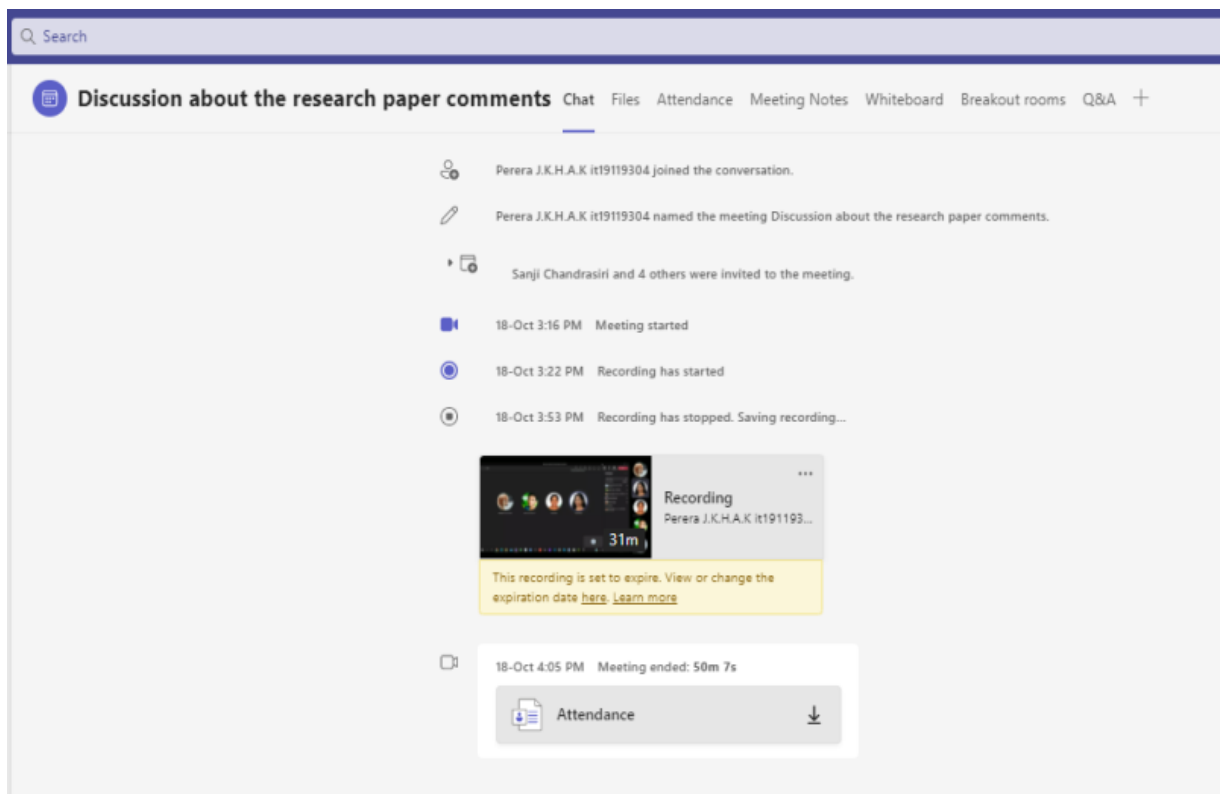
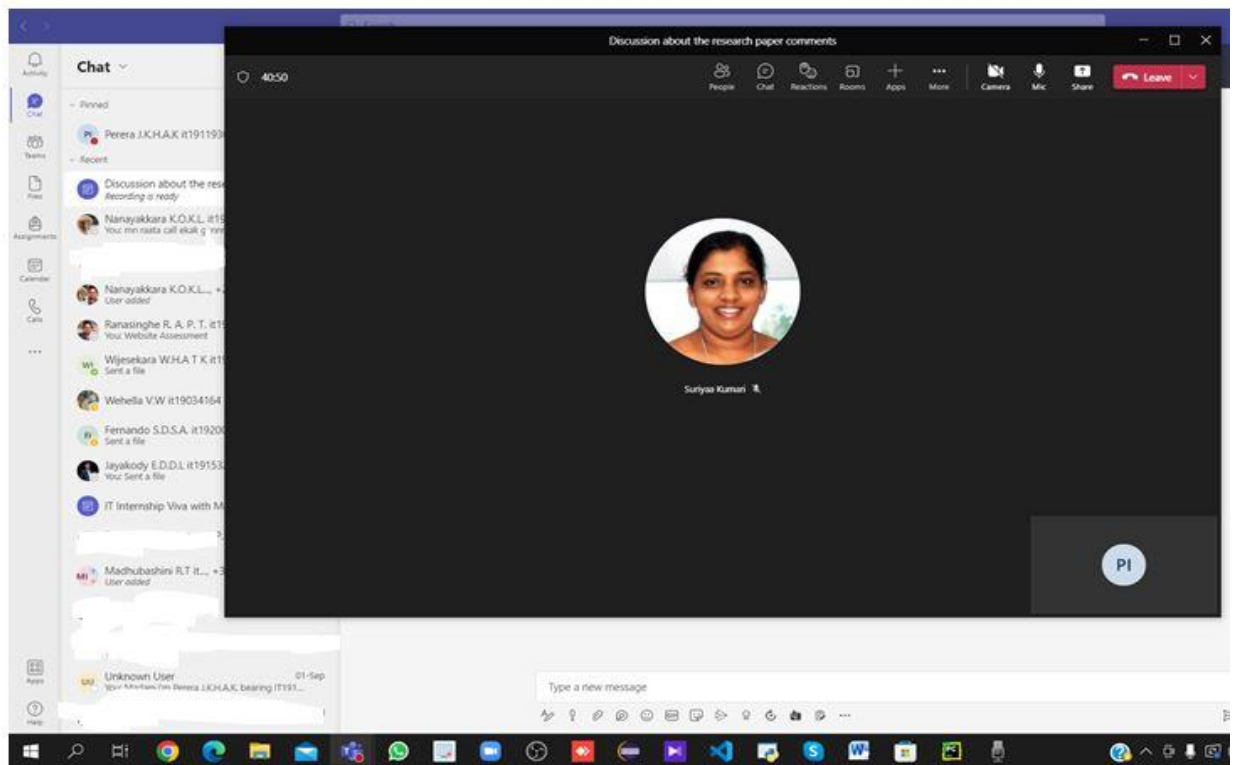
Training Information For the Month October	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• API testing</li> <li>• Continue implementation</li> <li>• Arrange the supervisor meetings</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• API testing</li> <li>• Progress presentation 2</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Do the changes according to the feedback of the panel</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Continue the implementation</li> <li>• Research paper publication</li> </ul>

Training Information For the Month November	
DATE / WEEK	DETAILS AND NOTES OF WORK CARRIED OUT, PROBLEMS ENCOUNTERED AND HOW SOLVED ETC., SKETCHES AND DIMENSIONS TO BE GIVEN WHEREVER POSSIBLE.
Week 1	<ul style="list-style-type: none"> <li>• Integrate all 4 components together</li> <li>• Logbook and status document 2 creation</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• Functional testing after integration</li> <li>• Logbook and status document 2 creation</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• Complete the website assessment</li> <li>• Final presentation and Viva</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• Final report(Proofread)</li> </ul>

## 2. Screenshots of the meeting, chats, calls

### 2.1 Meetings with Supervisors








## 3. Screenshots of GitLab



### 3.1 Repositories




#### Projects





Your projects 7		Starred projects 0	Explore projects	Filter by name...	Last updated			
All	Personal							
R	2022-276 / rp_server_four	Owner	★ 0	👤 0	🔍 0	📄 0	Updated 4 days ago	
	2022-276 / RP-Frontend-Web-Application	Owner	★ 0	👤 0	🔍 0	📄 0	Updated 1 month ago	
D	2022-276 / Difficult Word Backend	Owner	🔴	★ 0	👤 0	🔍 0	📄 0	Updated 1 month ago
R	2022-276 / rp_server_three	Owner	★ 0	👤 0	🔍 0	📄 0	Updated 1 month ago	
	2022-276 / rp_server_two	Owner	★ 0	👤 0	🔍 0	📄 0	Updated 2 months ago	
R	K.O.K.L. Nanayakkara / rp_frontend_three	Maintainer	★ 0	👤 0	🔍 0	📄 0	Updated 6 months ago	
R	2022-276 / RP_Project	Owner	★ 0	👤 0	🔍 0	📄 0	Updated 6 months ago	

### 3.2 GitLab Project

2022-276 >  rp\_server\_two > Details

**rp\_server\_two**   
Project ID: 1556

  Star 0  Fork 0

 8 Commits  1 Branch  0 Tags  5 MB Files


master

rp\_server\_two / +


History


Find file

Web IDE



Clone

 added create csv path  
PEROOT\UAKASKA authored 2 months ago

dd4927f1 

Add README

Add LICENSE














Add CHANGELOG

Add CONTRIBUTING

Enable Auto DevOps

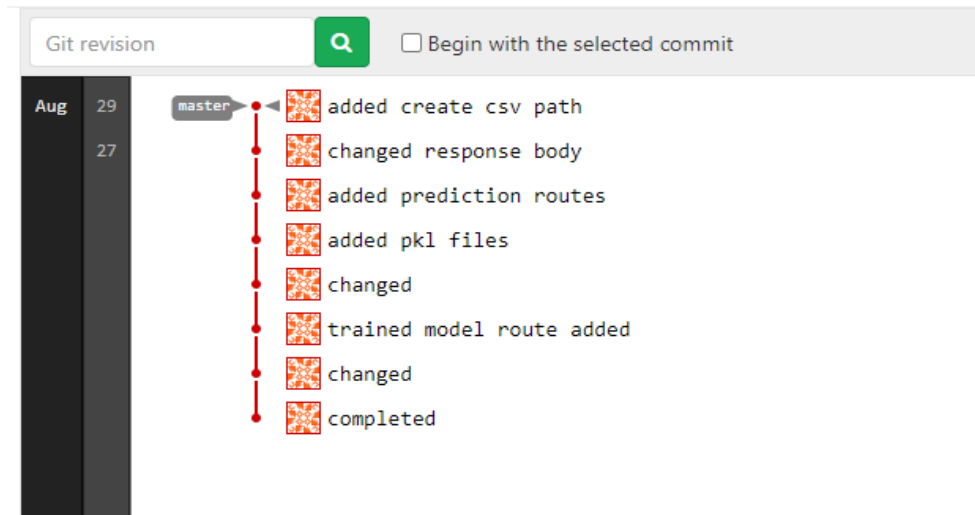
Add Kubernetes cluster

Set up CI/CD

Name	Last commit	Last update
 Procfile	completed	2 months ago
 app.py	added create csv path	2 months ago
 letters.csv	added pkl files	2 months ago
 letters.pkl	added pkl files	2 months ago
 numbers.csv	added pkl files	2 months ago
 numbers.pkl	added pkl files	2 months ago
 requirements.txt	completed	2 months ago
 signdata.csv	added pkl files	2 months ago
 signlanguage.pkl	added pkl files	2 months ago
 signlanguagenumbers.pkl	added pkl files	2 months ago
 test.csv	added pkl files	2 months ago
 words.csv	added pkl files	2 months ago
 words.pkl	added pkl files	2 months ago



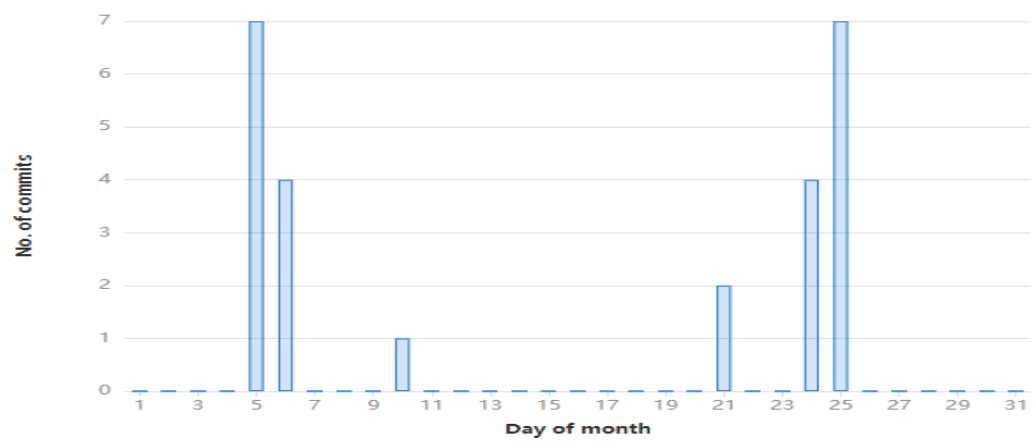
### 3.3 GitLab Graph



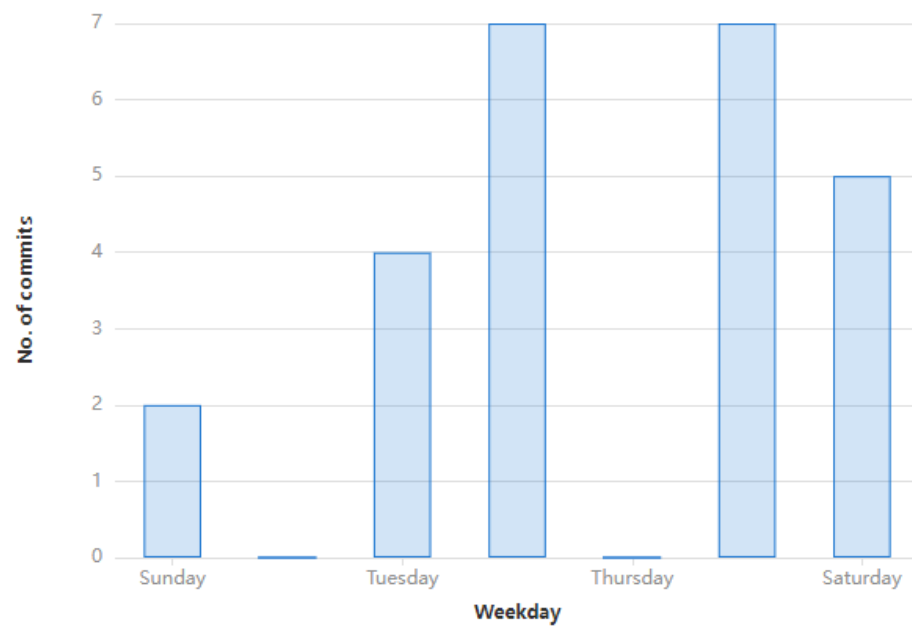
main

rp-frontend-web-application

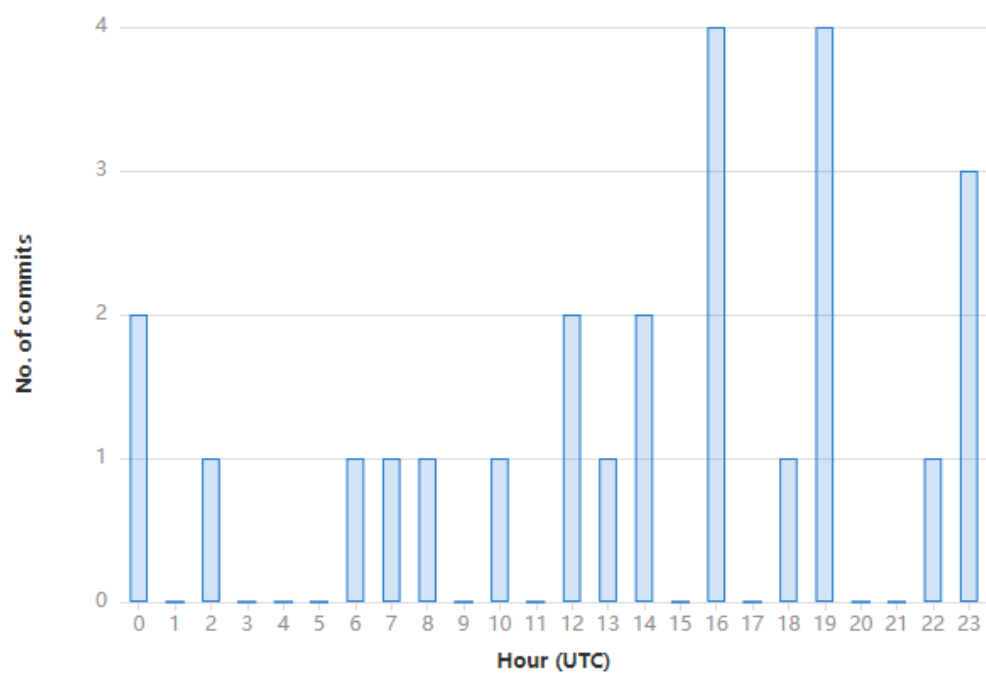
Commits per day of month



Commits per weekday



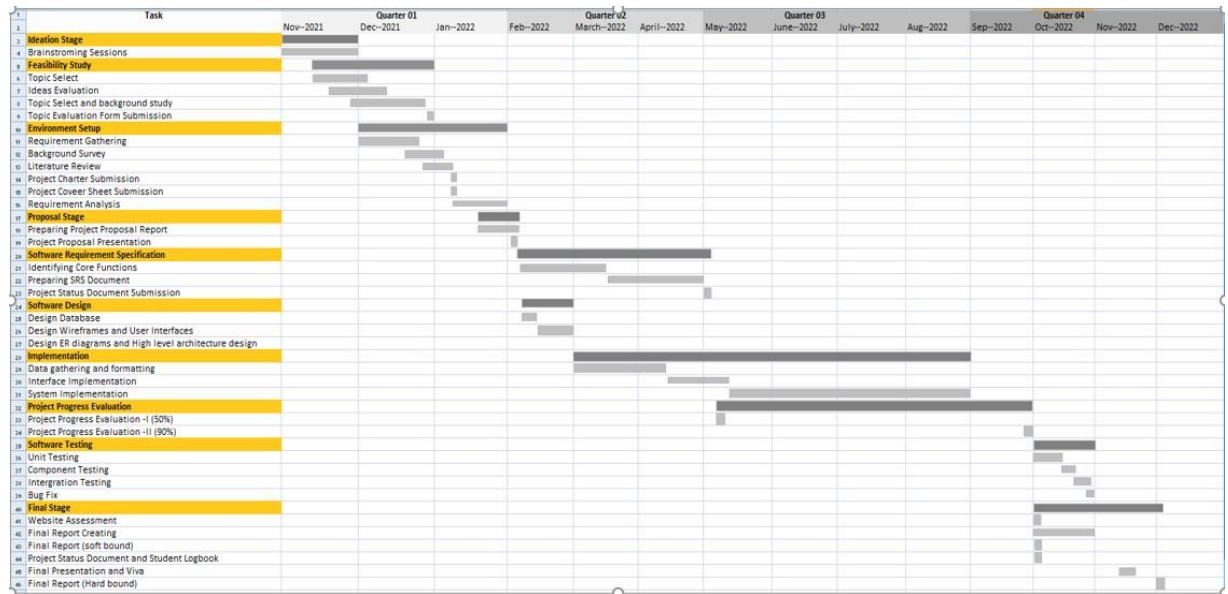
Commits per day hour (UTC)



## 4. Diagram

### 4.1 Gantt Chart

- Expected



- Actual so far

Task	December	January	February	March	April	May	June	July	August	September	October	November
Identify a research problem												
Study about the reason for existing problem												
Gather requirements												
Feasibility studies												
Analyzing existing research according to scope												
Analyzing the requirements												
Topic evaluation and document preparation												
Helped a prepare a charter documentation												
Project proposal preparation												
Proposal presentation												
SRS document preparation												
Identify the core function												
Implementation												
Progress presentation (50%)												
Database & web application development												
Testing evaluation												
Progress presentation (90%)												
System testing												
Final report presentation												
Final presentation and viva												
Completed												

## 4.2 Work – Break Down Structure

