Sri Lanka Institute of Information Technology

Research Project

IT4010

B.Sc. (Hons) in Information Technology

Status Document 2

Group ID: 2023-24-074

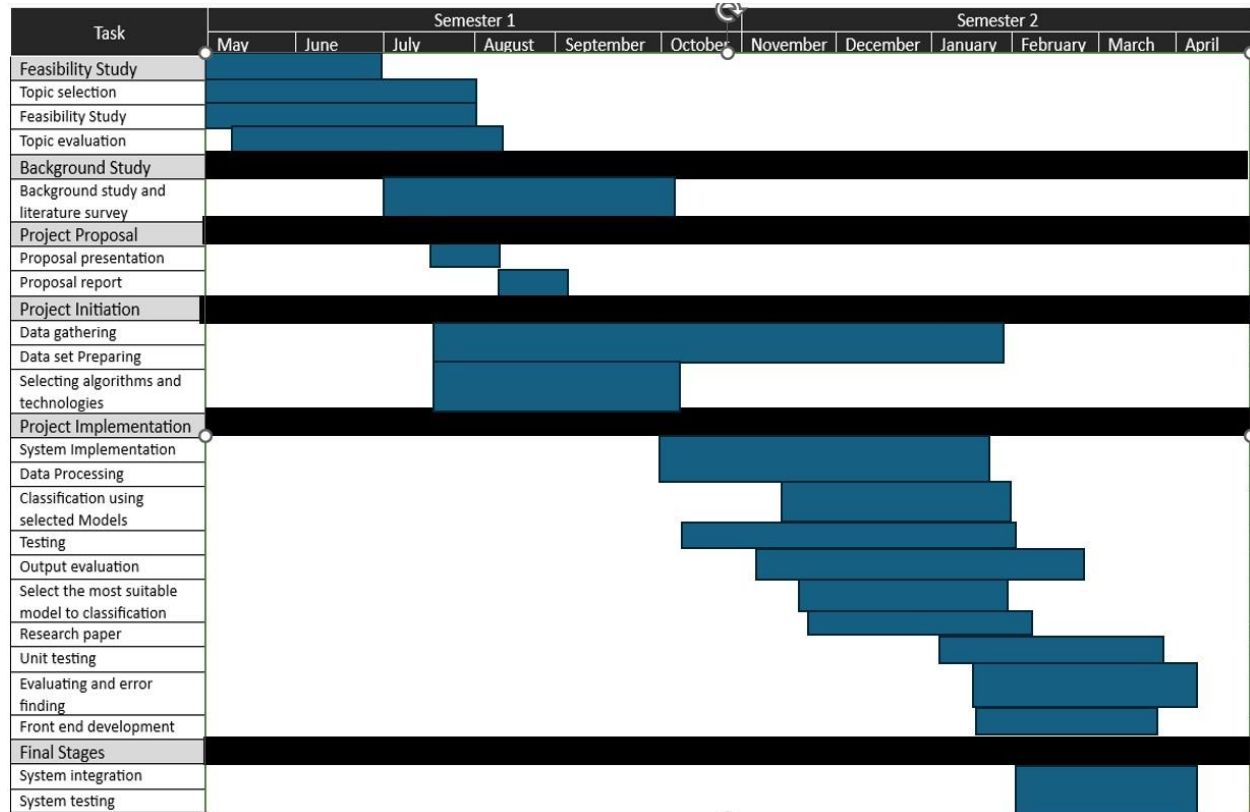Registration Number: IT20637064

Full Name: Anuththara R.M.C
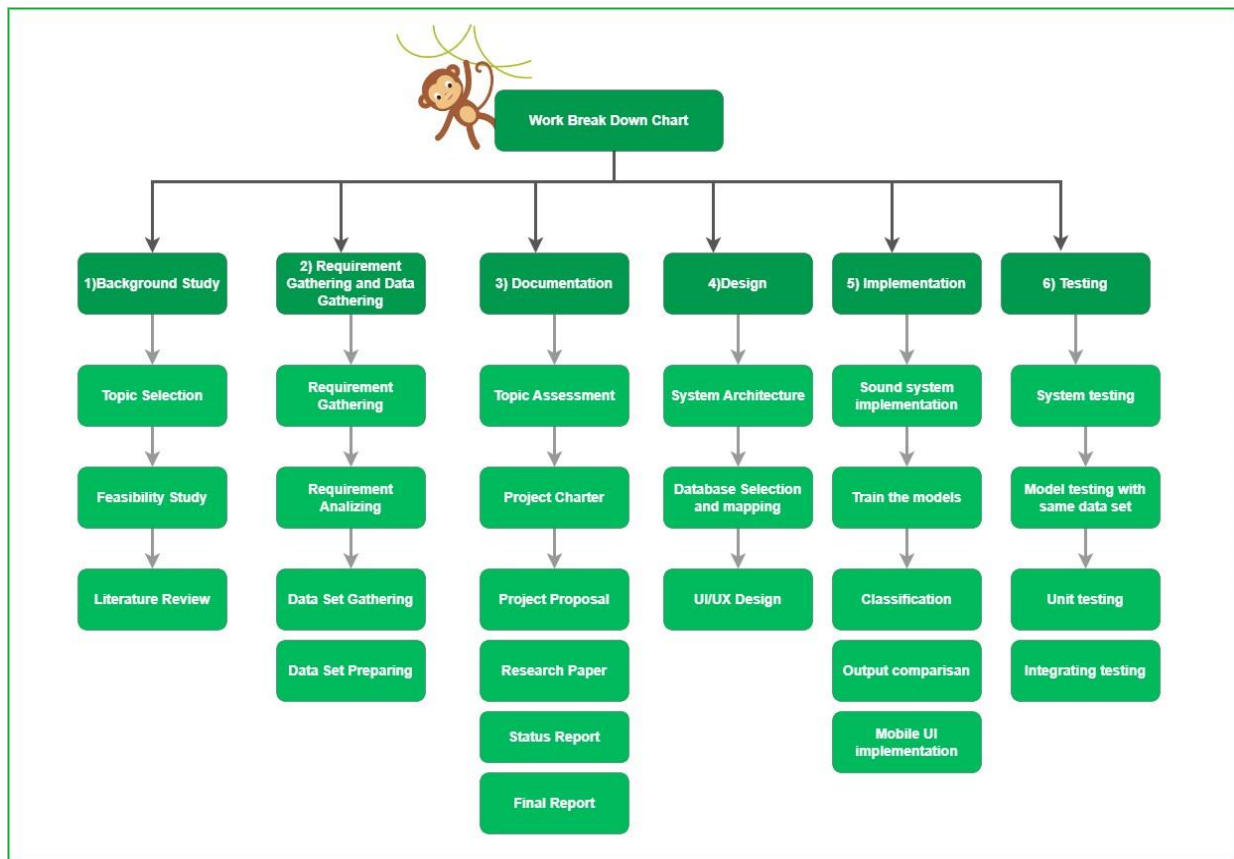
Specialization: Software Engineering

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Gantt Chart

Task	Semester 1						Semester 2					
	May	June	July	August	September	October	November	December	January	February	March	April
Feasibility Study												
Topic selection												
Feasibility Study												
Topic evaluation												
Background Study												
Background study and literature survey												
Project Proposal												
Proposal presentation												
Proposal report												
Project Initiation												
Data gathering												
Data set Preparing												
Selecting algorithms and technologies												
Project Implementation												
System Implementation												
Data Processing												
Classification using selected Models												
Testing												
Output evaluation												
Select the most suitable model to classification												
Research paper												
Unit testing												
Evaluating and error finding												
Front end development												
Final Stages												
System integration												
System testing												

System Work Breakdown Chart

Work Break Down Chart

1)Background Study	2) Requirement Gathering and Data Gathering	3) Documentation	4)Design	5) Implementation	6) Testing
Topic Selection	Requirement Gathering	Topic Assessment	System Architecture	Sound system implementation	System testing
Feasibility Study	Requirement Analizing	Project Charter	Database Selection and mapping	Train the models	Model testing with same data set
Literature Review	Data Set Gathering	Project Proposal	UI/UX Design	Classification	Unit testing
	Data Set Preparing	Research Paper		Output comparisan	Integrating testing
		Status Report		Mobile UI implementation	
		Final Report			

Research Tracker

Main tasks	Sub Tasks	Status	Completed Date
Data Collection	• Collect Data sets from the previous researches.	Completed	10/02/2024
	• Field visit and collect data.	Completed	
	• Collect videos from the internet.	Executing for increase the data set	
	• Cut the videos and preprocess them.	Executing	
Model Implementation	• Model implementation.	Completed	22/01/2024
	• Test the models.	Executing	02/03/2024
IOT Device Implementation and Testing	• Select the devices. Brought the devices.	Completed	15/09/2023
	•	Completed	02/11/2023
	• Devices connect and implementation.	Completed	10/01/2024
	•	Executing	04/03/2024
	• Testing		
	•		02/03/2024
Front End Development		Planning	30/03/2024
Backend Development		Planning	01/04/2024

Meetings

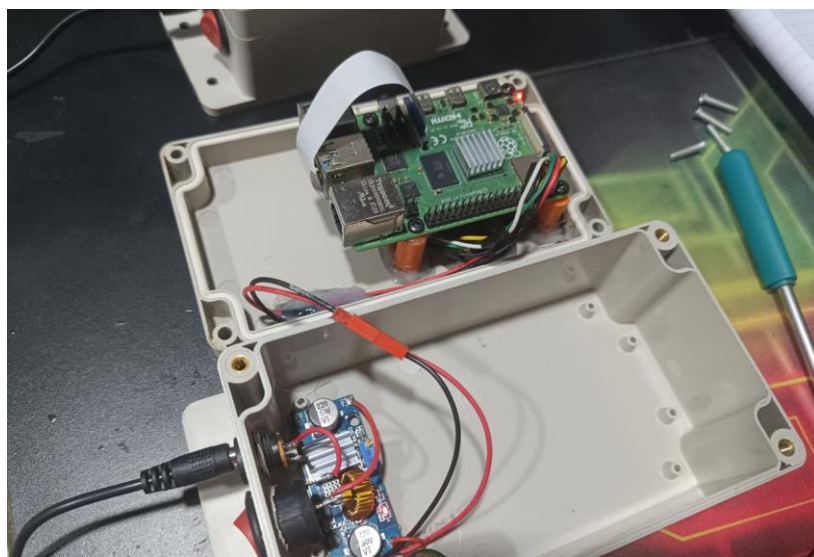| Date	Reason	Mode
11/07/2023	Discuss about the topic selection	Physical
19/07/2023	Finalize the topic	Physical
22/07/2023	Discuss about Proposal presentation	Teams
11/08/2023	Discuss about proposal issues	Hybrid
18/08/2023	Finalize the Components	Hybrid
25/08/2023	Discuss about TAF	Hybrid
01/09/2023	Initial awareness for progress presentation 1	Teams
06/10/2023	Prep for Progress Presentation	Physical
31/10/2023	Final Prep for Progress Presentation	Physical
10/11/2023	Discuss about the PP1 Comments	Hybrid
01/12/2023	Discuss component progress & related issues	Hybrid
15/12/2023	Initial awareness for research paper publication	Hybrid
22/12/2023	Discuss progress of the research paper & components	Hybrid
19/01/2024	Discuss progress of the research paper & components	Teams
26/01/2024	Discuss progress of the research paper & components	Teams
16/02/2024	Discuss progress of the research paper & components	Teams
16/03/2024	Final Prep for Progress Presentation 2	Physical

Meetings with co-supervisor

Date	Reason	Mode
11/07/2023	Discuss about the topic selection	Physical
19/07/2023	Finalize the topic	Physical
06/10/2023	Discuss component progress & related issues	Teams
27/10/2023	Discuss about Progress presentation	Teams

Challengers and Solutions

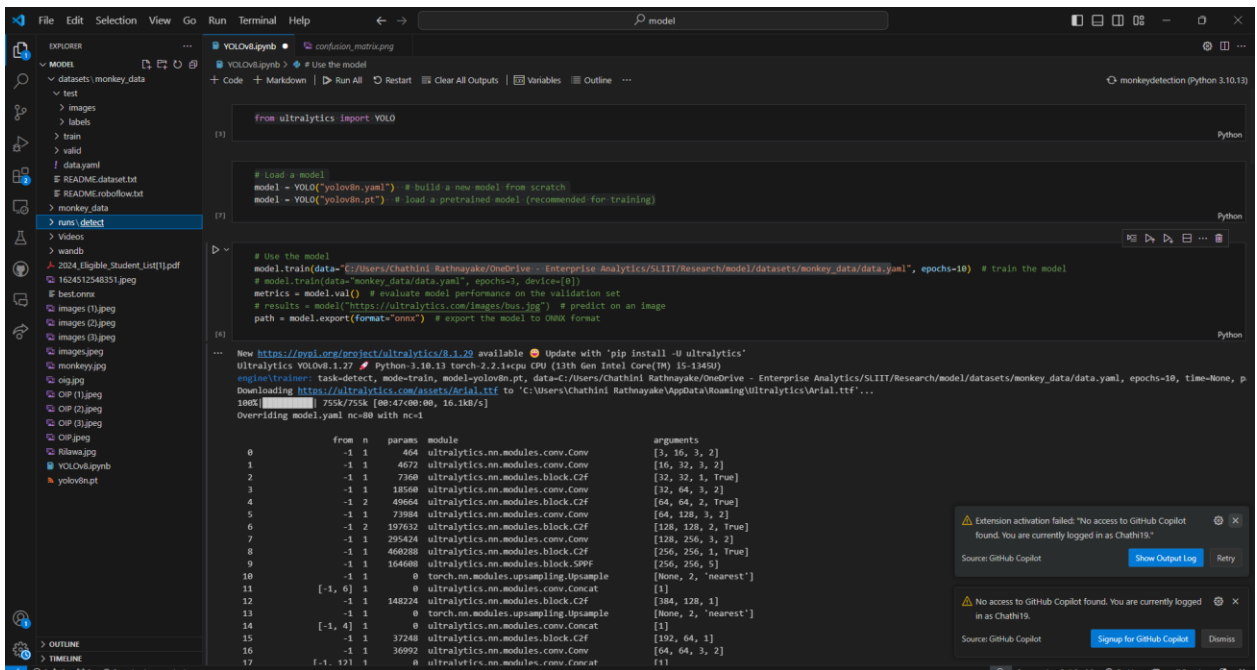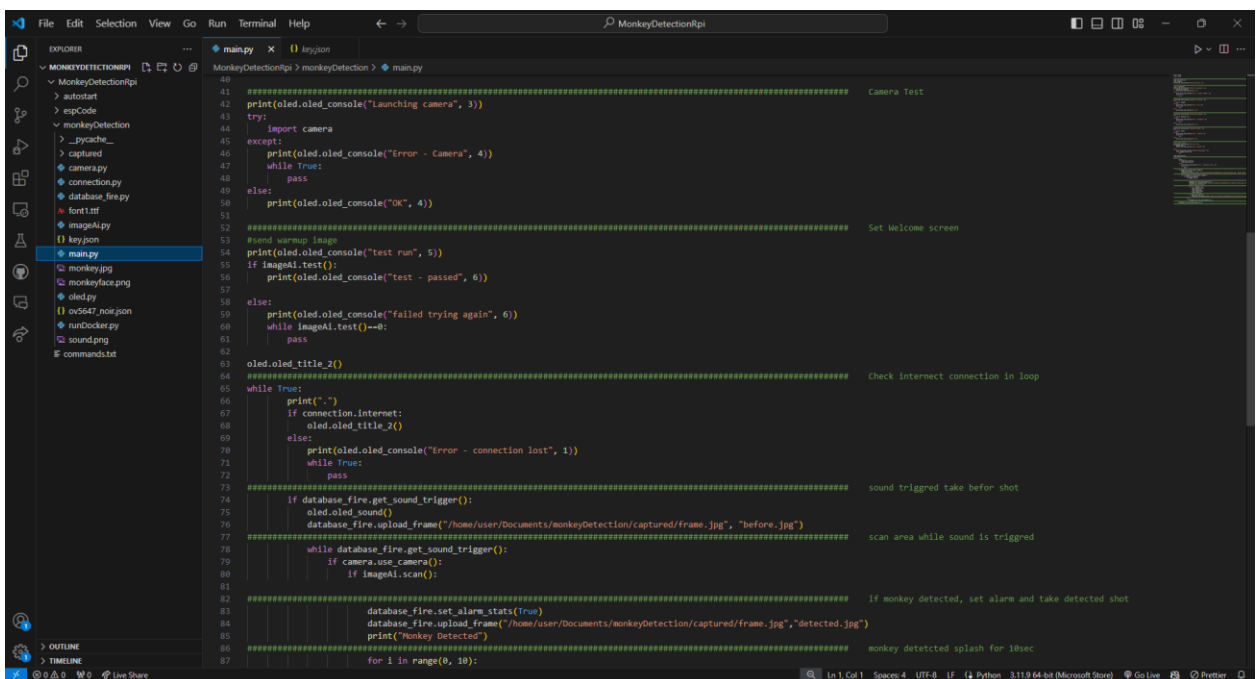| Challenge	Solution
Model accuracy in the device	Implement several models and change activation functions, layers and epochs and train.
	Test with implemented device and results evaluating. Choose the best model according to test results.
Choosing the devices for the implementation	Change the devices and try other devices with respect to the problems.

Buzzer Module

Camera Module

Model Implementation

Device Implementation