IT4010 – Research Project
Year 4

Status Document 1

Submitted to

Sri Lanka Institute of Information Technology

TangiGuru: A Cloud-based Tangible Learning Solution for

Early Childhood Development

Name: Semasinghe L.S.
Project ID: 2022-287
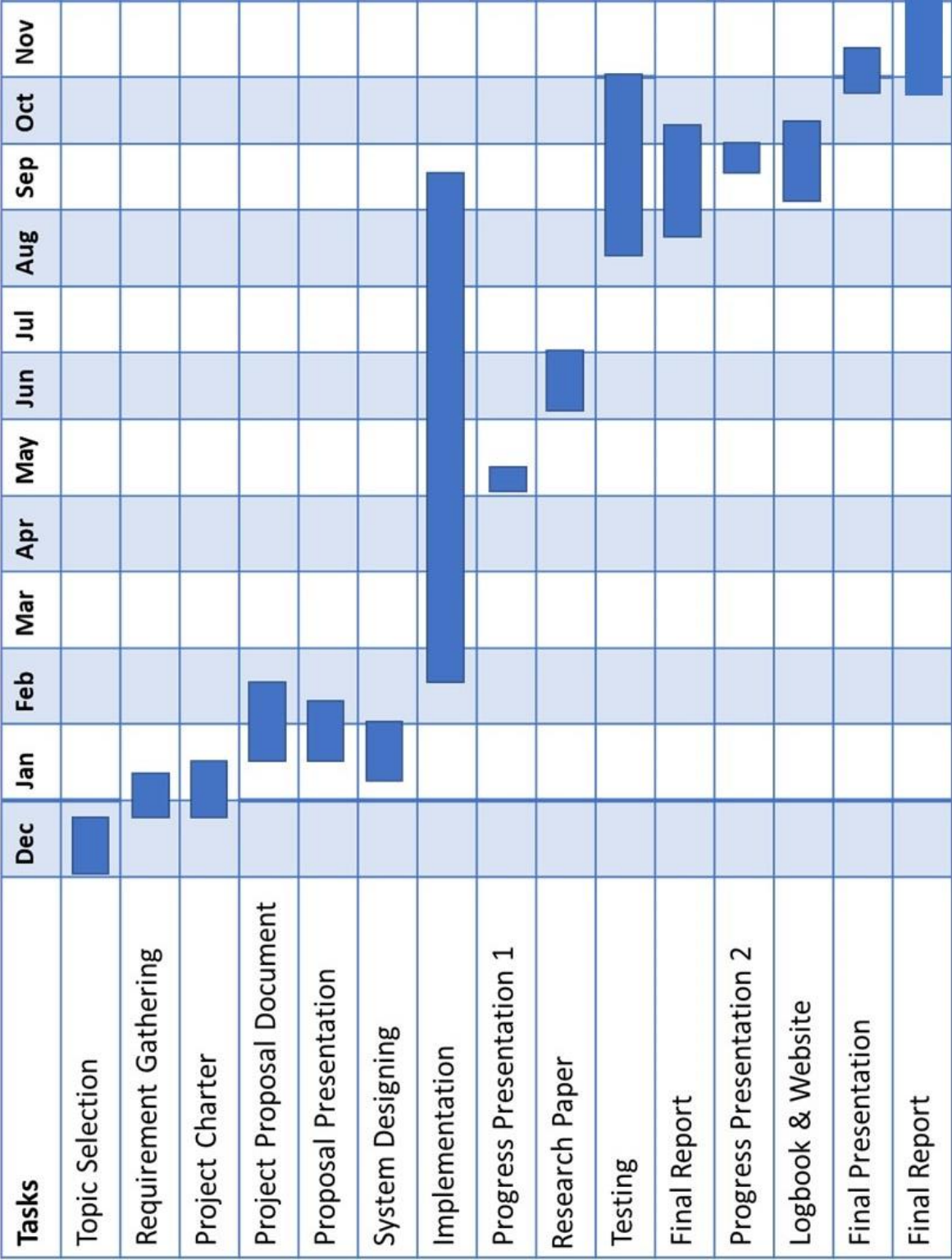Student ID: IT19051130

In partial fulfilment of the requirements for the

Bachelor of Science Special Honours Degree in Information Technology
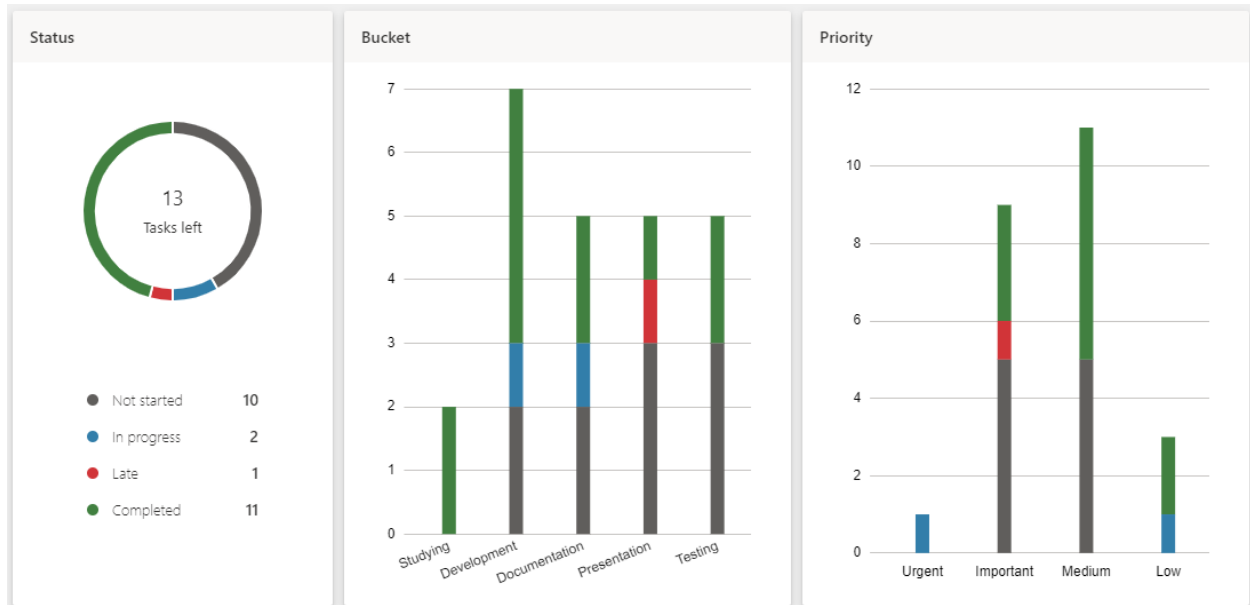
Date: May 13th, 2022

Table of Contents

Gannt Chart

Tasks	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Topic Selection	■											
Requirement Gathering		■										
Project Charter		■										
Project Proposal Document			■									
Proposal Presentation			■									
System Designing		■										
Implementation			■	■	■	■	■	■	■			
Progress Presentation 1						■						
Research Paper							■					
Testing									■	■	■	
Final Report									■	■		
Progress Presentation 2										■		
Logbook & Website										■	■	
Final Presentation											■	■
Final Report												■

Project View of MS Planner

Status

13
Tasks left

- ● Not started — 10
- ● In progress — 2
- ● Late — 1
- ● Completed — 11

Bucket

(Bar chart with categories: Studying, Development, Documentation, Presentation, Testing; y-axis 0–7)

Priority

(Bar chart with categories: Urgent, Important, Medium, Low; y-axis 0–12)

	Task title		Assigned to	Priority	Due	Bucket ↓	
+	Add a task						
○	Integrating Wireless Communications with Provisioned Cloud Resources (Prototype Level 5)		SI Semasinghe L.S. it190...		7/30	Development	...
○	Provisioning Cloud Resources for Real Time Triggers (Prototype Level 4)		SI Semasinghe L.S. it190...		7/2	Development	...
○	Setting Up CI/CD for Development Use	◠	SI Semasinghe L.S. it190...	↓	6/4	Development	...
○	Final Report Submission		SI Semasinghe L.S. it190...	!	10/7	Documentation	...
○	Research Paper Submission		SI Semasinghe L.S. it190...	!	6/30	Documentation	...
○	Project Status Document Submission	◠	SI Semasinghe L.S. it190...	🔔	5/13	Documentation	...
○	Progress Presentation 2		SI Semasinghe L.S. it190...	!	9/28	Presentation	...
○	Final Presentation & Viva		SI Semasinghe L.S. it190...	!	11/16	Presentation	...
○	Website Assessment		SI Semasinghe L.S. it190...	!	9/3	Presentation	...
○	Progress Presentation 1		SI Semasinghe L.S. it190...	!	📅 5/12	Presentation	...
○	Test Entire Communication Functionality (Final Prototype)		SI Semasinghe L.S. it190...		10/1	Testing	...
○	Testing Synchronization of Data with AWS AppSync		SI Semasinghe L.S. it190...		8/13	Testing	...
○	Testing Synchronization of Data with Firebase RTDB (Prototype Level 3)		SI Semasinghe L.S. it190...		5/14	Testing	...

(Horizontal bar chart, x-axis 0–25)

Unassigned

Semasinghe L.S. it19051130
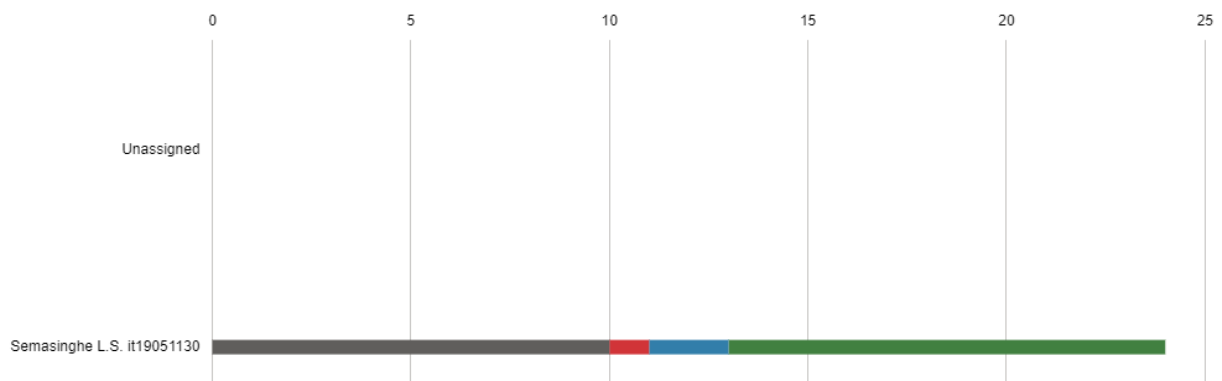
Work Breakdown Structure of MS Planner

Studying

+ Add task

Completed tasks   2   ∧

- ✓ ~~Studying Potential Cloud Technologies and Services which can be used.~~

  👤 Completed by Semasinghe L.S. it...

- ✓ ~~Studying Potential Wireless Technologies which can be used.~~

  👤 Completed by Semasinghe L.S. it...

Development

+ Add task

- ○ Integrating Wireless Communications with Provisioned Cloud Resources (Prototype Level 5)

  📅 07/30   👤

- ○ Provisioning Cloud Resources for Real Time Triggers (Prototype Level 4)

  📅 07/02   👤

- ○ Setting Up CI/CD for Development Use

  ◒

  📅 06/04   👤

Completed tasks   4   ∧

- ✓ ~~Developing Wireless Communications to sync with Firebase RTDB (Level 3 Prototype)~~

  👤 Completed by Semasinghe L.S. it...

- ✓ ~~Integrating Wireless Communication Methodologies to Firebase RTDB for Temporary Dev Use (Prototype Level 2)~~

  👤 Completed by Semasinghe L.S. it...

Documentation

+ Add task

- ○ Final Report Submission

  ❗

  📅 10/07   👤

- ○ Research Paper Submission

  ❗

  📅 06/30   👤

- ○ Project Status Document Submission

  📣 ◒

  📅 05/13   👤

Completed tasks   2   ∧

- ✓ ~~Project Proposal Report Submission~~

  ❗

  👤 Completed by Semasinghe L.S. it...

- ✓ ~~Project Charter Submission~~

  ❗

  👤 Completed by Semasinghe L.S. it...

Presentation

+ Add task

○ Progress Presentation 2

!

📅 09/28

○ Final Presentation & Viva

!

📅 11/16

○ Website Assessment

!

📅 09/03

○ Progress Presentation 1

!

📅 05/12

Completed tasks   1   ∧

✓ ~~Project Proposal Presentation~~

!

Completed by Semasinghe L.S. it...

Testing

+ Add task

○ Test Entire Communication Functionality (Final Prototype)

📅 10/01

○ Testing Synchronization of Data with AWS AppSync

📅 08/13

○ Testing Synchronization of Data with Firebase RTDB (Prototype Level 3)

📅 05/14

Completed tasks   2   ∧

✓ ~~Testing Basic Communication with Internet~~

Completed by Semasinghe L.S. it...

✓ ~~Testing Wireless Communiation among Tangibles~~

Completed by Semasinghe L.S. it...

Proof of Virtual and Physical Meetings

Files Tasks +

📹 **GitLab KT started**

▾ Collapse all

Semasinghe L.S. it19051130 3/19 8:14 AM
How do you merge two Git repositories? - Stack Overflow

> **How do you merge two Git repositories?**
> Consider the following scenario: I have developed a small experimental project A in its own Git repo. It has now matured, and I'd like A to be part of larger project B, which has its own big repos...
>
> stackoverflow.com

📹 Meeting ended: 1h 12m

Hettiarachchi T. C. D. S. it19206806 always keep in mind to work on your own branch. never checkout to other branches

Hettiarachchi T. C. D. S. it19206806 3/19 9:14 AM Edited
Semasinghe L.S. it19051130Got it 😊. Thanks

Semasinghe L.S. it19051130 3/19 9:15 AM
We'll merge the branch later with merge requests. 🙂

Hettiarachchi T. C. D. S. it19206806 3/19 9:15 AM
Sure.👍

↩ Reply

📹 **GitLab KT 2 ended: 23m 34s**

📹 Meeting ended: 9s

↩ Reply

Files   Tasks   +

Sunday, March 20, 2022

Semasinghe L.S. it19051130   3/20 10:14 AM
Regarding Research Paper submission
Shashika Lokuliyana
Madam,

For the research paper submission to be completed by 30th June, do we need to complete our project implementation (Tangible learning kit) and present our research finding and metrics in our research paper?

CC: **Hettiarachchi T. C. D. S. it19206806**

See less

▾ Collapse all

Shashika Lokuliyana   3/20 11:22 AM   👍 1
Yes putha need all the components to be completed and testing done to include test results and evaluation

Hettiarachchi T. C. D. S. it19206806   3/20 12:52 PM
Okay Madam Noted! Thank You!

↩ Reply

Sunday, April 17, 2022

Meeting in "General" ended: 1m 34s

↩ Reply

Tuesday, April 26, 2022

ESP32 Bootloader Fix ended: 6m 59s

↩ Reply

Wednesday, April 27, 2022

ESP Bootloader Fix 2 ended: 2h 35m

↩ Reply

Wednesday, May 11, 2022

Meeting ended: 4m 59s

☑ **New conversation**

Files Tasks +

☐⏺ Meeting ended: 4m 59s   😀

    ▾ Collapse all

      🎥 Progress Review & Version Control Issue Discussion started

        am i audible?

      😀 **Semasinghe L.S. it19051130** Wednesday 9:16 PM
        AWS AppSync | Managed GraphQL APIs | Amazon Web Services

aws	**AWS AppSync | Managed GraphQL APIs | Amazon Web Services** Develop, secure and run GraphQL APIs at any scale on AWS. Query only the data you need and can combine data from multiple data sources in a single request. aws.amazon.com

      ☐⏺ Meeting ended: 1h 34m   😀 😀 RJ

    ↵ Reply

Yesterday

☐⏺ Meeting in "General" started

    9 replies from you, Semasinghe L.S. it19051130, and Narmada

    😀 **Narmada Gamage** Yesterday 11:21 PM

      👍

    ↵ Reply

😀 **Hettiarachchi T. C. D. S. it19206806** Yesterday 11:33 PM

[✎ **New conversation**]

GitLab Contribution Graphs

Git revision	🔍	☐ Begin with the selected commit

May	12	**Cholitha** ●	Firebase configured and addColourToCube function done
		master ●	Merge branch 'Lakisuru' into 'master'
		Lakisuru ◄	updated my research question and objective on readme.md
		●	removed unwanted files from public website
	11	●	firebase integrated to adv master
			Web code cleaned
			Marketting web applciation altered
	10	●	Activity Developed. Cube and the app needs to be connected
	9	●	Merge branch 'Lakisuru' into 'master'
		●	advanced master/slave added
		●	advanced master/slave added
	8	●	master-multi added
		●	slave-multi works
		●	restructure files
		●	slave-single works
		●	master-single was successful
	3	●	website updated
		●	website counter added
		●	website init files added
		●	ESP-NOW initial files added
		●	updated MAC FETCH code
	2	●	initial code changed for ESP32 from ESP 12-E
		●	added successful firebase initial code
		●	initial basic firmware file added

advanced master/slave added
advanced master/slave added
master-multi added
slave-multi works
restructure files
slave-single works
master-single was successful
website updated
website counter added
website init files added
ESP-NOW initial files added
updated MAC FETCH code
initial code changed for ESP32 from ESP 12-E
added successful firebase initial code
initial basic firmware file added
audio insturctions added
Firmware updated to ESP 32 from esp8266 and RTDB master communication tested with sucess
color activity created and cube design added
web application init
firmware files added to repo
Merge branch 'Lakisuru' into 'master'
README.md updated
Initial commit