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# Decisions

This page is dedicated to listing important decisions, as well as their outcomes, made by one or more stakeholders in the project.

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# Communication Tool

## Purpose

The document outlines the various communication tools decided by the teams for use to ensure collaboration and effective communication.

## Tools

### Internal

- Slack -
  - A channel consisting of all teams and supervisor.
  - Each team has its own private channel.
- Zoom -
  - Team meetings are held via zoom.
- Trello -
  - Each team has its own Trello board to keep track of every member's progress.

### External

- Slack -
  - A channel consisting of all teams and clients.
- In person meetings with clients
  - Held during the tutorial @Old Arts Building, Room 155.
- Gmail -
  - Meeting invites and task updates are sent via emails to all clients by the teams.

# Client Improvements

This document displays all the improvements suggested by the clients.

We have selected 8 tasks for the first sprint and the remaining have been prioritized indicating as to which sprint will they be implemented in -

PRIORITY	DESCRIPTION
High	Will be implemented in Sprint 1B
Medium	Will be implemented in Sprint 1C
Low	May or may not be implemented as part of the project

TASKS		Tasks to be implemented in Sprint 1A ( 22 Mar 2021 - 29 Mar 2021 )	Tasks to be implemented in Sprint 1B ( 07 Apr 2021 - 16 Apr 2021 )	PRIORITY	TEAM
1.	Search and Insert are modes - needs to be specified in all algorithms	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 1
2.	Speed slider should be labelled as speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 1
3.	Click anywhere on the box to insert/ search parameters rather than just clicking on the word 'INSERT' and 'SEARCH'	<input type="checkbox"/>	<input type="checkbox"/>	Low	
4.	Remove the number of lines of code and have a simple progress bar instead	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 1
5.	Add some basic cases such as balanced tree, reversed tree, random, sorted tree etc. to all algorithms	<input type="checkbox"/>	<input type="checkbox"/>	Medium	
COLOR					
6.	Red should be reserved for special cases, e.g. found nodes and not for nodes along the path.	<input type="checkbox"/>	<input type="checkbox"/>	Medium	
PSEUDOCODE					
7.	Recursively close the nested blocks within a parent block and fix the animation too	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 2
BINARY SEARCH TREE					
8.	Need pointers for t and p when locating the right node for Binary Search Tree	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 2
9.	Should have text coming up for FOUND and NOT FOUND (same as 6)	<input type="checkbox"/>	<input type="checkbox"/>	Medium	
10.	Split the tree into left and right as currently the elements fall in a straight line for BST	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 2
11.	Make all the details of making a "new node" in pseudocode collapsible as it takes up too much space as is	<input type="checkbox"/>	<input type="checkbox"/>	Medium	
12.	Highlight the node being investigated, and when you move on, to have the relevant tree edges in color	<input type="checkbox"/>	<input type="checkbox"/>	Medium	

13.	Add explanations on the left side of the code like the other algorithms for BST	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 2
QUICKSORT					
14.	Alternatives for choosing pivot element ( <i>need pseudocode from clients</i> ) <ul style="list-style-type: none"> <li>• Rightmost (the one there now)</li> <li>• Random</li> <li>• Median of three</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	Medium	
15.	Highlight the pivot element after its chosen (currently, it is highlighted before being chosen) in QuickSort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 1
16.	Add pointers for i and j in Quicksort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 1
17.	Display the same array as the input at the bottom but swap the elements as the algorithm is implemented such that the array becomes sorted towards the end in QuickSort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 1
HEAPSORT					
18.	Change the labels: <ul style="list-style-type: none"> <li>• Array view (not just array)</li> <li>• Tree view (not Heap)</li> </ul>	<input checked="" type="checkbox"/>			Team 1
GRAPH ALGORITHMS					
19.	The + and – should be labelled Graph Size	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 2
20.	Change LOAD to "BUILD GRAPH"	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 2
21.	Once graph is loaded change "BUILD GRAPH" to "RESET"	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Team 2
PRIM'S ALGORITHM					
22.	Add a priority queue at the bottom for Prim's algorithm	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 2
TRANSITIVE CLOSURE					
23.	Add the final graph to the animation against the code "find all nodes reachable from i via k" in Transitive closure - such that the user does not need to expand it to view the final result	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High	Team 1
24.	Indicate where i, j and k are in the matrix	<input type="checkbox"/>	<input type="checkbox"/>	Medium	

# Confluence Structure

This is the CONFLUENCE STRUCTURE FOR COMP90082-2021-SM1-AIA decided by both the teams.

Pages

1. **Home INCEPTION PHASE**
2. **Requirements**
  - a. Project Overview
  - b. Functional requirements (table form)
  - c. Non functional requirements (table form)
  - d. Motivational Model
  - e. Personas
  - f. User stories
  - g. Product Backlog
3. **Ceremonies**
4. **Timeline**
  - a. Overall Plan
  - b. Sprint 1A
    - i. Sprint Backlog
    - ii. Sprint ceremonies (meeting minutes of planning, review and retrospective)
  - c. Sprint 1B
    - i. Sprint Backlog
    - ii. Sprint ceremonies (meeting minutes of planning, review and retrospective)
5. **Meetings**
  - a. Client meetings (meeting minutes)
  - b. Team meetings (meeting minutes)
    - i. Both teams
    - ii. Team 1
    - iii. Team 2
6. **System Design**
  - a. UI/Component Design of the app
  - b. Diagrams
    - i. Entity Relationship Diagram
    - ii. Use Case Diagram
    - iii. Sequence Diagram
    - iv. Wireframe Diagram
7. **Development**
  - a. Development Manual
  - b. User Manual
8. **Quality**
  - a. Software Quality Assurance Plan
  - b. Coding Standards
9. **Testing**
  - a. System testing
  - b. User Acceptance testing
10. **Decisions**
  - a. Communication tool
  - b. Client improvements v1
  - c. Confluence Structure
11. **Others**
  - a. Resources