PROJECT

1. PLAN
- **Project understood**
  - Requirements understood
  - Constraints understood
  - I/O formatting understood
- **Research done**
  - API for Visualization Models
  - Sequential Algorithms
  - Parallel Computing
- **Brute Force Approach formulated**
- **Agree to a unified coding standard**

2. CODE
- **Code for the sequential solution written**
  - Brute Force pseudocode to code
    - Data structures required
    - Code to process I/O
    - Scheduling algorithms
  - Code optimized
- **Parallel processor code written**

3. DESIGN
- **Graph interface designed**
- **Schedule interface designed**
- **Graphical User Interface for the Tree and Schedule developed**
- **Integrated with the Sequential and Parallel processor code**

4. TEST
- **Tested with test suite**
- **Prepared test suite**
  - Achieved 100% Logic coverage
  - Achieved 100% Data coverage
- **Created a testing environment for GUI**
  - Mock data testing

5. MANAGE
- **Documentation written**
  - API
  - User Manual for visuals
- **Report written**
  - Development process
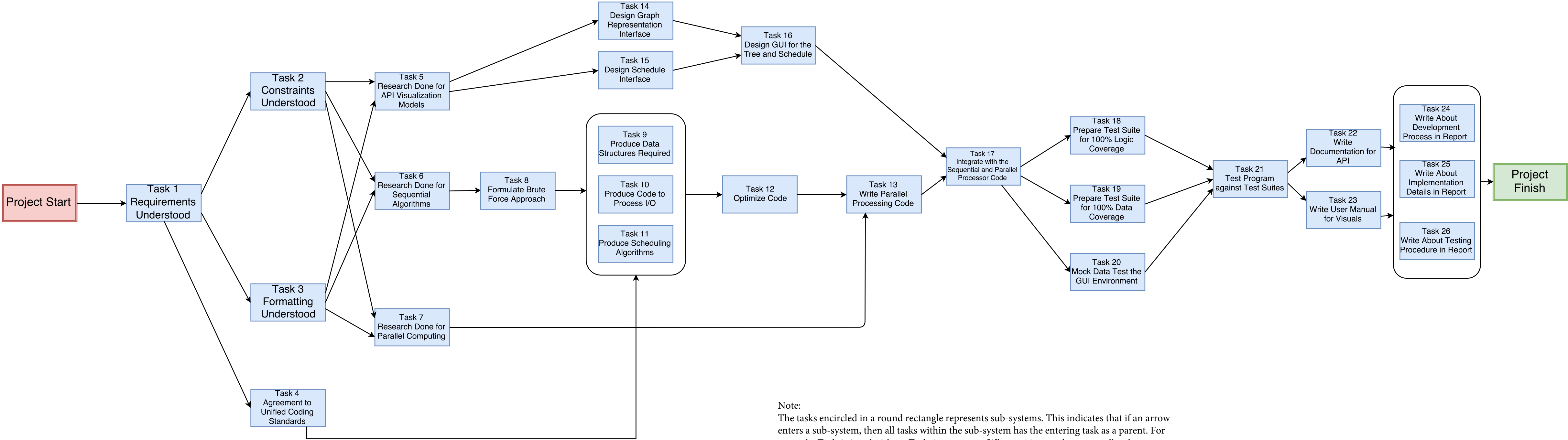 - Implementation details
  - Testing procedure

Notes:

1. 'Graph Interface Designed' refers to the interface associated with displaying the graphs during iterations.

2. 'Schedule Interface Designed' refers to the interface associated with displaying the produced schedules, statistics, and progress during iterations.

3. 'GUI for Tree and Schedule Developed' refers to the overall design of the window incorporating both the graph interface and schedule interface.

4. 'Integrated with the Sequential and Parallel Processor Code' refers to integrating the developed GUI interface with the produced algorithm.

Project Start

Task 1
Requirements
Understood

Task 2
Constraints
Understood

Task 3
Formatting
Understood

Task 4
Agreement to
Unified Coding
Standards

Task 5
Research Done for
API Visualization
Models

Task 6
Research Done for
Sequential
Algorithms

Task 7
Research Done for
Parallel Computing

Task 8
Formulate Brute
Force Approach

Task 9
Produce Data
Structures Required

Task 10
Produce Code to
Process I/O

Task 11
Produce Scheduling
Algorithms

Task 12
Optimize Code

Task 13
Write Parallel
Processing Code

Task 14
Design Graph
Representation
Interface

Task 15
Design Schedule
Interface

Task 16
Design GUI for the
Tree and Schedule

Task 17
Integrate with the
Sequential and Parallel
Processor Code

Task 18
Prepare Test Suite
for 100% Logic
Coverage

Task 19
Prepare Test Suite
for 100% Data
Coverage

Task 20
Mock Data Test the
GUI Environment

Task 21
Test Program
against Test Suites

Task 22
Write
Documentation for
API

Task 23
Write User Manual
for Visuals

Task 24
Write About
Development
Process in Report

Task 25
Write About
Implementation
Details in Report

Task 26
Write About Testing
Procedure in Report

Project Finish

Note:
The tasks encircled in a round rectangle represents sub-systems. This indicates that if an arrow
enters a sub-system, then all tasks within the sub-system has the entering task as a parent. For
example, Task 8, 9 and 10 have Task 6 as a parent. When exiting a sub-system, all tasks
must be completed before you can proceed to the child. For example, Task 11 has Task 8, 9 and 10
as a parent, and all these dependencies must be completed.

ID		Task Mode	Task Name	Duration	Start	Finish
1			**1. Plan**	**11 days**	**Tue 25/07/1**	**Fri 4/08/17**
2	✓		**Project Understood**	**2 days**	**Tue 25/07/1**	**Wed 26/07/17**
3	✓	📌	Requirements Understood	2 days	Tue 25/07/17	Wed 26/07/17
4	✓	📌	Constraints Understood	2 days	Tue 25/07/17	Wed 26/07/17
5	✓	📌	I/O Formatting Understood	1 day	Wed 26/07/1	Wed 26/07/17
6	✓	📌	Agree to a Unified Coding Standard	1 day	Fri 28/07/17	Fri 28/07/17
7			**Research Done**	**4 days**	**Fri 28/07/17**	**Mon 31/07/17**
8		📌	Sequential Algorithms	4 days	Fri 28/07/17	Mon 31/07/17
9		📌	API for Visualisation Models	4 days	Fri 28/07/17	Mon 31/07/17
10		📌	Parallel Computing	3 days	Fri 28/07/17	Sun 30/07/17
11		📌	Brute Force Approach Formulated	3 days	Wed 2/08/17	Fri 4/08/17
12			**2. Code**	**12 days**	**Sat 5/08/17**	**Wed 16/08/17**
13			**Code for Program Written**	**9 days**	**Sat 5/08/17**	**Sun 13/08/17**
14			**Brute Force Psuedocode to Code**	**6 days**	**Sat 5/08/17**	**Thu 10/08/17**
15		📌	Produce Data Structures Required	2 days	Sat 5/08/17	Sun 6/08/17
16		📌	Code to Process I/O	1 day	Sat 5/08/17	Sat 5/08/17
17		📌	Scheduling Algorithm	6 days	Sat 5/08/17	Thu 10/08/17
18		📌	Code Optimized	3 days	Fri 11/08/17	Sun 13/08/17
19		📌	Parallel Processor Code Written	3 days	Mon 14/08/1	Wed 16/08/17
20			**3. Design**	**17 days**	**Wed 2/08/17**	**Fri 18/08/17**
21		📌	Graph Interface Designed	5 days	Wed 2/08/17	Sun 6/08/17
22		📌	Schedule Interface Designed	5 days	Wed 2/08/17	Sun 6/08/17
23		📌	GUI for the Tree and Schedule Developed	7 days	Tue 8/08/17	Mon 14/08/17
24		📌	Integrate GUI with the Sequential and Parallel Processor Code	2 days	Thu 17/08/17	Fri 18/08/17
25			**4. Test**	**4 days**	**Sat 19/08/17**	**Tue 22/08/17**
26			**Prepared Test Suite**	**2 days**	**Sat 19/08/17**	**Sun 20/08/17**
27		📌	Write 100% Logic Coverage Test Suite	2 days	Sat 19/08/17	Sun 20/08/17
28		📌	Write 100% Data Coverage Test Suite	2 days	Sat 19/08/17	Sun 20/08/17
29		📌	Finish Testing of Test Suites	2 days	Mon 21/08/1	Tue 22/08/17
30		📌	**Created a Testing Environment for GUI**	**2 days**	**Mon 21/08/17**	**Tue 22/08/17**
31		📌	Mock Data Testing	2 days	Mon 21/08/1	Tue 22/08/17
32			**5. Manage**	**9 days**	**Wed 23/08/1**	**Thu 31/08/17**
33			**Documentation Written**	**4 days**	**Wed 23/08/1**	**Sat 26/08/17**
34		📌	API	3 days	Wed 23/08/1	Fri 25/08/17
35		📌	User Manual for Visuals	4 days	Wed 23/08/1	Sat 26/08/17
36			**Report Written**	**2 days**	**Wed 30/08/1**	**Thu 31/08/17**
37		📌	Development Process	1 day	Wed 30/08/1	Wed 30/08/17
38		📌	Implementation Details	2 days	Wed 30/08/1	Thu 31/08/17
39		📌	Testing Procedure	1 day	Thu 31/08/17	Thu 31/08/17

Legend:

Critical	Split	Finish-only	Baseline Milestone ◇	Manual Summary	Inactive Task
Critical Split	Task Progress	Duration-only	Milestone ◆	Project Summary	Inactive Milestone ◇
Critical Progress	Manual Task	Baseline	Summary Progress	External Tasks	Inactive Summary
Task	Start-only	Baseline Split	Summary	External Milestone ◇	Deadline ⬇