

# **Quarantine Overseen**

## **Project and Management Plan**

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### **1. Management Plan:**

For our project, we have assigned roles in a fashion that gives individuals an even standing.

- a. Joe Johnson will facilitate meetings, focus on project planning, work on the SRS and work on the MySQL aspects of the project.
- b. Mounir El Jamal will focus on the SRS, web portal set up and server connection (using PHP).
- c. Nolan Rudolph will prioritize the SDS, shell scripts and the PHP coding aspect of the project.
- d. Toby Wong will provide for the SDS, help with the shell scripts, and provide the AJAX tracking and proximity detection algorithms.
- e. Yuchen Gao will provide to the SRS and help other members with assigned tasks as problems arise.

### **2. Monitoring and Reporting:**

We use Discord as a means of virtually meeting and posting findings/results. Progress is monitored by having one (or more) individuals review progress on tasks assigned to other members. These results are then recorded in the Work Breakdown Schedule. Furthermore, all progress and findings are discussed at virtual meetings held at 3 scheduled times throughout the week, as well as unscheduled meetings as needed.

### 3. Work Breakdown Schedule:

#### 3.1. Meetings (each one roughly 2 hours)

Date	Assigned To	Who Missed the Meeting	Topics	Successfully Covered Topics?
Thursday; May 7th	All	YG	<b>Initial Ideas for Research</b> <i>Covid 19 Trackers</i> <ul style="list-style-type: none"> <li>Goal : Provide User a Safe Area When Not Home</li> <li>Need to Know whos infected</li> <li>Reward System For Staying Home</li> </ul>	yes
Saturday; May 9th	All	YG (caught up through messaging)	<b>Confirmation of Ideas and Task Scheduling. Project Proposal</b> <i>Project 2 is set as a Covid 19 Trackers</i> Adding more features <ul style="list-style-type: none"> <li>Screen Sleep Disable Features</li> <li>Report self Infection Status</li> </ul> Begin SRS : YG, MJ Begin SDS : NR, TW Begin Proposal/ Project Plan: JJ	yes
Tuesday; May 12th	All	No One Missed	<b>SRS and SDS Finalizations</b> Finalize SRS: YG, MJ, JJ Finalize SDS: NR, TW Finalize Project Plan: JJ	yes
Thursday; May 14th	All	No One Missed	<b>Tweaks to SRS and SDS</b> <b>(Extra Time due to the delay of deadline)</b> <i>Minor revisions</i> <ul style="list-style-type: none"> <li>SRS: NR, TW</li> <li>SDS: YG, JJ</li> <li>Project Plan: MJ</li> </ul>	yes
Saturday; May 16th	All	No One Missed	<b>Post Document Check-Up</b> <i>Initial Setups</i> <ul style="list-style-type: none"> <li>Modify the webpage: ALL</li> </ul>	yes

			<ul style="list-style-type: none"> <li>• Server Setup: MJ</li> <li>• Tracking From Proj 1: YG</li> </ul>	
<b>Tuesday; May 19th</b>	<b>All</b>	<b>No One Missed</b>	<b>Check Functionality of the Web Page</b> Check Location Accuracy Report Self Infected Functionality Infected User ID visualization All button Functionality Server Handle Capability Found Bugs <ul style="list-style-type: none"> <li>• Updating infection status</li> <li>• cookies marking as infected when not in infected database</li> </ul>	<b>yes</b>
<b>Thursday; May 21st</b>	<b>All</b>	<b>No One Missed</b>	<b>Backup Database Implementation</b> Debug Screen Sleep: TW, MJ Script For Saving Data: NR	<b>yes</b>
<b>Saturday; May 23rd</b>	<b>All</b>	<b>No One Missed</b>	<b>More Debugging and Testing on Webpage</b> Check Webpage from all angles : Group Check All Data From Past Three Days: Group	<b>yes</b>
<b>Tuesday; May 26th</b>	<b>All</b>	<b>No One Missed</b>	<b>Work On SRS and SDS Based on Feedback</b> SRS : YG, TW SDS : NR, MJ	<b>yes</b>
<b>Thursday; May 28th</b>	<b>All</b>	<b>No One Missed</b>	<b>Installation Instructions</b> Installation Shell Scripts: NR <b>Documentation</b> <ul style="list-style-type: none"> <li>• User: JJ</li> <li>• Programmer: MJ, JJ</li> <li>• Revise Installation: MJ</li> </ul>	<b>yes</b>
<b>Saturday; May 30th</b>	<b>All</b>	<b>No One Missed</b>	<b>Finalize Web Page and DataBase</b> Check Program Work as Expected : Group Check all documents: Group	<b>yes</b>
<b>Monday; June 1st</b>	<b>All</b>	<b>No One Missed</b>	<b>Project 2 Overview</b> Packing Up All documents and Programs: Group	<b>yes</b>

### 3.2. Individual Tasks (Except Meetings)

Date Assigned	Date	Task	Assigned To	Successfully Completed?	Completed By (Time Taken)
Thursday; May 7th	Friday; May 8th	Individual Research	All	yes	MJ, JJ, NR, TW (~4 hours each)
Saturday; May 9th	Sunday; May 10th	Project Plan 1 page	JJ	yes	JJ (~3hours)
Saturday; May 9th	Sunday; May 10th	SRS 1 page	YG, MJ	yes	JJ (~3 hours)
Saturday; May 9th	Sunday; May 10th	SDS 1 Page	NR, TW	yes	NR, TW (~4 hours each)
Saturday; May 9th	Monday; May 11th	Project Plan 1 page Revisions	YG	yes	MJ (~1 hour)
Saturday; May 9th	Monday; May 11th	SRS 1 page Revisions	NR, TW	yes	NR, TW (~1 hour)
Saturday; May 9th	Monday; May 11th	SDS 1 Page Revisions	MJ, JJ	yes	MJ, JJ (~1 hour)
Thursday; May 7th	Tuesday; May 12th	Project Plan Review (Class)	All	yes	MJ, TW (~1 hour)
Tuesday; May 12th	Thursday; May 14th	SRS Completion	YG, MJ, JJ	yes	YG, MJ, JJ (~8 hours each)
Tuesday; May 12th	Thursday; May 14th	SDS Completion	NR, TW	yes	NR, TW (~9 hours each)
Thursday; May 14th	Thursday; May 14th - 15th	Project Plan Finalization	JJ	yes	JJ (~5 hours)
Thursday;	Friday; May 15th	SRS Revision	NR, TW	yes	NR, TW (~3 hours each)

<b>May 14th</b>					
<b>Thursday; May 14th</b>	<b>Friday; May 15th</b>	<b>SDS Revision</b>	<b>YG, JJ</b>	<b>yes</b>	<b>JJ (~3 hours each)</b>
<b>Thursday; May 14th</b>	<b>Friday; May 15th</b>	<b>Project Plan Revision</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~2 hours)</b>
<b>Thursday; May 14th</b>	<b>Saturday; May 16th</b>	<b>Initial sql server setup</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~2 hours)</b>
<b>Thursday; May 14th</b>	<b>Saturday; May 16th</b>	<b>Initial php home page track.php</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~2 hours)</b>
<b>Thursday; May 14th</b>	<b>Saturday; May 16th</b>	<b>Cookies set up</b>	<b>TW</b>	<b>yes</b>	<b>TW (~2 hours)</b>
<b>Thursday; May 14th</b>	<b>Saturday; May 16th</b>	<b>Tracking Adaptation from project 1</b>	<b>YG</b>	<b>yes</b>	<b>JJ (~2 hours)</b>
<b>Thursday; May 14th</b>	<b>Saturday; May 16th</b>	<b>Research taskbar and button functionality for later use</b>	<b>NR</b>	<b>yes</b>	<b>NR (~3 hours)</b>
<b>Saturday; May 16th</b>	<b>Sunday; May 17th</b>	<b>Add taskbar and buttons to pages, linking to taskbar to travel between pages</b>	<b>NR</b>	<b>yes</b>	<b>NR (~1 hour)</b>
<b>Saturday; May 16th</b>	<b>Monday; May 18th</b>	<b>Add AJAX functions to buttons on infected.php and index.php</b>	<b>TW</b>	<b>yes</b>	<b>TW (~2 hours)</b>
<b>Saturday; May 16th</b>	<b>Monday; May 18th</b>	<b>Research disabling screen sleep</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~2 hours)</b>

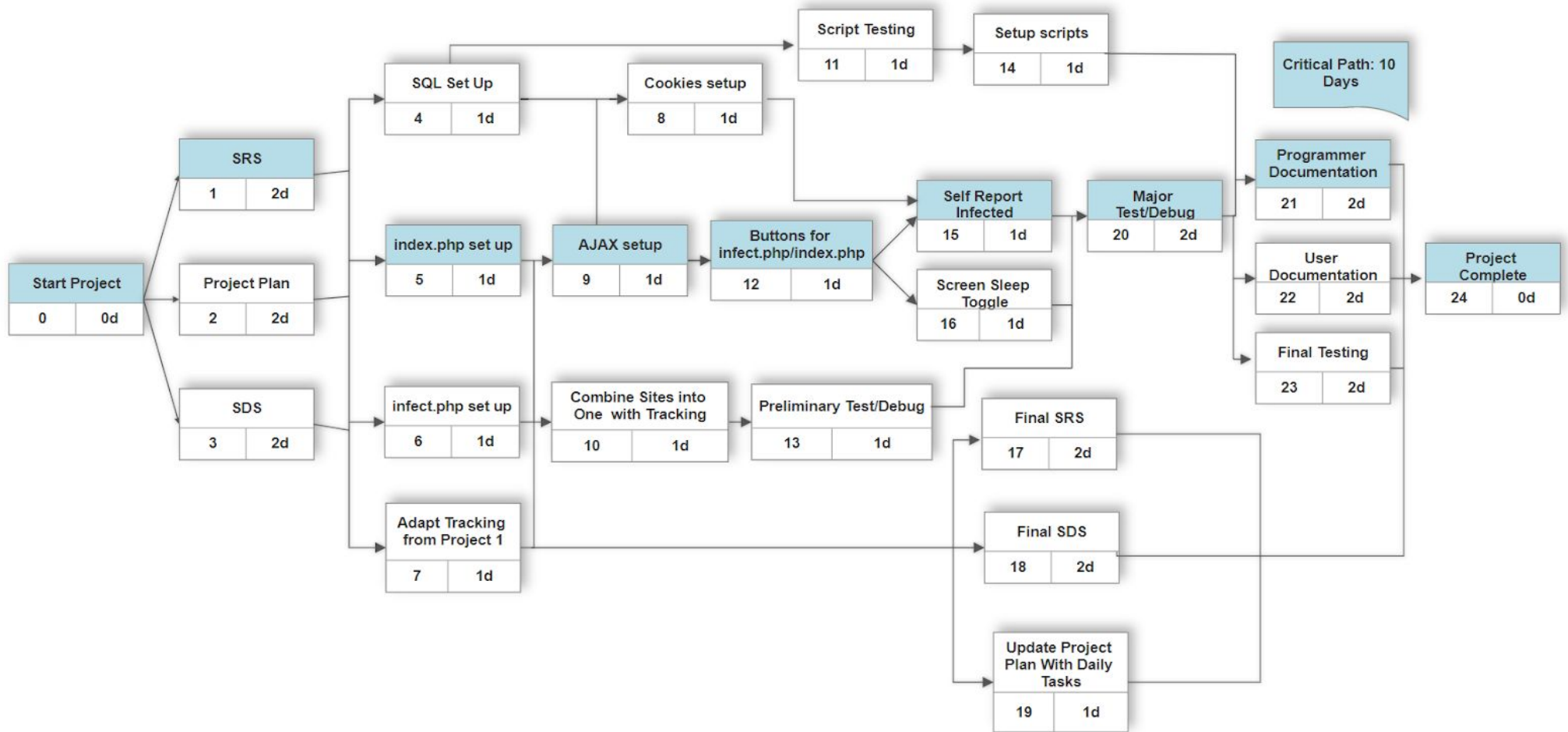
<b>Saturday; May 16th</b>	<b>Tuesday; May 19th (Before Meeting)</b>	<b>Add screen sleep toggle to index.php</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~1 hour)</b>
<b>Saturday; May 16th</b>	<b>Tuesday; May 19th (Before Meeting)</b>	<b>Add infected opt-in to infected.php</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~1 hour)</b>
<b>Tuesday; May 19th</b>	<b>Wednesday; May 20th</b>	<b>Fix bugs found in meeting</b>	<b>YG/NR</b>	<b>yes</b>	<b>NR (~ 3 hours)</b>
<b>Thursday; May 21st</b>	<b>Friday; May 22nd</b>	<b>Fix Screen Sleep bugs</b>	<b>TW/MJ</b>	<b>yes</b>	<b>TW/MJ (~1 hour)</b>
<b>Thursday; May 21st</b>	<b>Friday; May 22nd</b>	<b>Add “not infected” button to infected.php</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~1 hour)</b>
<b>Thursday; May 21st</b>	<b>Friday; May 22nd</b>	<b>Initial shell scripts</b>	<b>NR</b>	<b>yes</b>	<b>NR (~3 hours)</b>
<b>Thursday; May 21st</b>	<b>Saturday; May 23rd (premeeting)</b>	<b>Shell script testing</b>	<b>TW</b>	<b>yes</b>	<b>TW (~2 hours)</b>
<b>Saturday; May 23rd</b>	<b>Monday; May 25th</b>	<b>Attempt to break system</b>	<b>All</b>	<b>yes</b>	<b>NR/MJ (~3 hours each)</b>
<b>Saturday; May 23rd</b>	<b>Monday; May 25th</b>	<b>Add database view pages *dbview.php for debugging</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~3 hours)</b>
<b>Tuesday; May 26th</b>	<b>Tuesday; May 26th</b>	<b>Fix proximity update bug</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~3 hours)</b>
<b>Tuesday; May 26th</b>	<b>Tuesday; May 26th</b>	<b>Change infection logic based only on confirmed infected</b>	<b>TW</b>	<b>yes</b>	<b>TW (~1 hour)</b>

<b>Tuesday; May 26th</b>	<b>Tuesday; May 26th</b>	<b>added db_nav for navigating dbview pages</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~30 minutes)</b>
<b>Tuesday; May 26th</b>	<b>Wednesday; May 27th</b>	<b>SRS Overhaul</b>	<b>YG</b>	<b>yes</b>	<b>YG (~6 hours)</b>
<b>Tuesday; May 26th</b>	<b>Wednesday; May 27th</b>	<b>SDS Overhaul</b>	<b>TW</b>	<b>yes</b>	<b>TW (~8 hours)</b>
<b>Tuesday; May 26th</b>	<b>Wednesday; May 27th</b>	<b>User Documentation initial</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~4 hours)</b>
<b>Thursday; May 28th</b>	<b>Thursday; May 28th</b>	<b>Installation Instructions initial</b>	<b>NR</b>	<b>yes</b>	<b>NR (~4 hours)</b>
<b>Thursday; May 28th</b>	<b>Thursday; May 28th</b>	<b>Start Programmer Documentation</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~4 hours)</b>
<b>Thursday; May 28th</b>	<b>Friday; May 29th</b>	<b>Finish initial Programmer Documentation</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~4 hours)</b>
<b>Thursday; May 28th</b>	<b>Friday; May 29th</b>	<b>Revise SRS</b>	<b>JJ/TW</b>	<b>yes</b>	<b>JJ/TW (~3 hours each)</b>
<b>Thursday; May 28th</b>	<b>Friday; May 29th</b>	<b>Revise SDS</b>	<b>NR/MJ</b>	<b>yes</b>	<b>NR/MJ (~3 hours each)</b>
<b>Thursday; May 28th</b>	<b>Friday; May 29th</b>	<b>Revise User Documentation</b>	<b>YG</b>	<b>yes</b>	<b>YG (~1 hour)</b>
<b>Thursday; May 28th</b>	<b>Saturday; May 30th (premeeting)</b>	<b>Revise Programmer Documentation</b>	<b>TW</b>	<b>yes</b>	<b>TW (~3 hours)</b>
<b>Thursday; May 28th</b>	<b>Saturday; May 30th (premeeting)</b>	<b>Revise Installation Instructions</b>	<b>MJ</b>	<b>yes</b>	<b>MJ (~1 hour)</b>

<b>Saturday; May 30th</b>	<b>Sunday; May 31st</b>	<b>Delete test files and set config.php parameters</b>	<b>JJ</b>	<b>yes</b>	<b>JJ (~30 minutes)</b>
<b>Saturday; May 30th</b>	<b>Sunday; May 31st</b>	<b>Final Run Through Testing</b>	<b>All members</b>	<b>yes</b>	<b>All members (~2 hours)</b>
<b>Saturday; May 30th</b>	<b>Sunday; May 31st</b>	<b>Final Documentation Overview</b>	<b>All members</b>	<b>yes</b>	<b>All members(~8 hours)</b>



## 4. Build Plan:



## 5. Risks and Risk Management:

- **Web Page Functionality**

- **Risk**

- Mobile Devices might not support the COVID 19 tracker | processing power limitations
    - Mobile Devices might not give permission to provide User Location
    - Mobile Devices might lose connection to the server when screen is locked

- **Risk Reduction Strategy**

- Minimize our Usage of Cpu and Memory to allow even weaker systems to process with no issues
    - Make Simple PHP web page to work properly on all common phones
    - Ask User Permission for location from user to fix location permissions
    - Add a screen sleep toggle to prevent screen from locking automatically

- **Backend Functionality**

- **Risk**

- User data could be lost due to server shutdown, attack or unexpected crash

- **Risk Reduction Strategy**

- Create a backup Script that will store user data every 6 hours

- **Project Plan Control**

- **Risk**

- Project might be delayed due to serious bugs that crash the whole system
    - Members have unforeseen, urgent personal events that might delay the project

- **Risk Reduction Strategy**

- Have code quality control and test all existing code regularly, if serious problems still appear and cause delays to the whole project, all group members should get involved and fix the problem together.
    - Communicate regularly, jobs can be distributed in different ways by task leaders in order to finish the project on time.

- **Privacy**

- **Risk**

- User data could be stolen or web servers modified by unknowns
- **Risk Reduction Strategy**
  - Privatize all server data and code to prevent unpermitted access

## **6. Build Plan Rationale:**

The system we are building consists of a web client, database, risk calculator and risk alerter. These systems are mostly separate, but still have dependencies to one another. This build plan aims to initialize the separate parts, then integrate them to work with one another. The PERT chart provided shows the breakdown of all major steps (minus the minor debugging and testing for each addition to the software). The critical path ends up being 10 days (which is less than the project length to allow for unforeseen complications), this is labeled with blue headers.