

New World Times Project Proposal - Phase Two

Release: 1.0 October 08, 2019

Contacts:

Matt Nienhuis & Quinn Roemer

Project Schedule

For the year 2020, Date Format MM/DD.

This schedule will be followed during the life of the project. This schedule uses the <u>Product Life Cycle</u> (PLC). These milestones concisely outline the process of project exploration, planning, development, and validation. We plan to go through these phases as we produce the requested solution.

In the case that the following schedule cannot be followed a variety of actions can be taken. The milestone date can be moved, resources can be increased, or the schedule adapted. In this schedule, there are numerous milestones listed, where we will review our current progress and initiate any corrective actions as needed.

During the development process, all code will be backed up on <u>GitHub</u>, an external project management solution. The scanned files will be backed up in the cloud and on local machines. All internal records will be cataloged in a logical fashion with internal correspondence separated from external items.

Listed in the schedule are demo dates where the current project prototypes will be presented to NWT. During these demos, all feedback and concerns will be addressed.

We will frequently interface with the appointed NWT contact as we progress through this schedule. During the first phases of the project, a team will be hired to manage the scanning and cataloging of all documents while the software solutions are being developed by E-SW.

Please note, Major milestones (high priority) are bold while more flexible milestones (low priority) are not.

January

- 1. 01/03: Verify project requirements.
- 2. 01/06: Review project approval from NWT.
- 3. 01/06: Purchase necessary scanners and setup required workstations.
- 4. 01/13: Buy the necessary software licenses (Microsoft SOL and Cloud).
- 5. 01/15: Hire team for scanning and documenting.
- 6. 01/27: Begin digitizing all documents.

- 7. 01/27: Specify necessary requirements for the database.
- 8. 01/31: Review current project progress and plans.

February

- 9. 02/03: Demo scanning and database prep for NWT
- 10. 02/03: Begin the design of the back end portion of the database.

- 11. 02/17: Review final database design with NWT.
- 12. 2/19: Purchase Server Hardware for the Database.
- 13. 02/28: Finalize design for the back-end.

March

- 14. 03/02: Begin implementing the database.
- 15. 03/16: Review database construction progress.
- 16. 03/30: Demo initial implementation of the Database for NWT.
- 17. 03/31: Review scanning progress.

April

- 18. 04/06: Review the current database solution.
- 19. 04/13: Finish database implementation.
- 20. 04/13: Begin bug testing.
- 21. 04/20: Fix database defects.

May

- 22. 05/04: Demo database for NWT and verify the robustness of the solution.
- 23. 05/11: Fix final defects and polish implementation.
- 24. 05/18: Begin loading scanned documents into the database.
- 25. 05/20: Review current progress with NWT.
- 26. 05/25: Begin design for front-end.

June

- 27. 06/01: Review scanning progress.
- 28. 06/08: Review front-end designs
- 29. 06/22: Demo front-end design for NWT.
- 30. 06/29: Finalize front end designs.
- 31. 06/30: Begin implementing the front-end of the database.

July

32. 07/13: Review scanning progress.

- 33. 07/15: Review early front-end implementation.
- 34. 07/31: Review front-end with NWT.

August

- 35. 08/03: Begin distributing Front-end for testing.
- 36. 08/10: Debug front-end.
- 37. 08/28: Review front-end Solution.
- 38. 08/31: Demo front-end Solution for NWT.

September

- 39. 09/01: Review scanning progress.
- 40. **09/11:** Finish front-end testing & debugging.
- 41. 09/14: Set-up front end for distribution and general access.
- 42. 09/30: Review project progress.

October

- 43. 10/05: Combine front-end with back-end.
- 44. 10/12: Demo combined front-end and backend for NWT.
- 45. 10/13: Begin combined bug testing.
- 46. 10/30: Review project progress.

November

- 47. 11/02: Verify scanning progress is on track.
- 48. 11/13: Finish combined bug testing.
- 49. 11/16: Implement automatic backup of the database.
- 50. 11/30: Review project progress with NWT.

December

- 51. 12/07: Complete the process of digitizing all documents.
- 52. 12/10: Evaluate data integrity & completeness.
- 53. 12/14: Demo the completed project for NWT.
- 54. 12/31: Project completed and delivered.

Milestone Explanations

The milestone number corresponds to the row number in the project schedule.

<u>Milestone 1</u> - Create and verify that all necessary parts of the project are accounted for in the project plan. This includes finalizing the detailed plan and model that will be used during the software development process.

<u>Milestone 2</u> - Review the finalized and detailed project plan with NWT. At this meeting, we will receive final project approval and be equipped with the necessary credentials and resources to produce the desired product.

<u>Milestone 3</u> - On this date, we plan on purchasing all the scanning hardware needed for the team that will be digitizing all of NWT"s documents (<u>Fujitsu Image Scanner fi-7700</u>). The workstations required will be provided by E-SW. Dependent on project approval from NWT in milestone two.

<u>Milestone 4</u> - On this date, we plan on purchasing the necessary licenses for the software that will be used to create your uniquely tailored solution. This includes Microsoft SQL (<u>Microsoft SQL Server</u>) and cloud storage where the scanned documents will be initially stored. Dependent on project approval from NWT in milestone two.

<u>Milestone 5</u> - Hire for positions involving the scanning process and stored procedure. We believe three individuals will be required per scanner. One to retrieve documents, one to scan, and one to catalog scanned documents. The number of people required will be flexible and continually tracked to verify that all documents are finished by the year's end.

<u>Milestone 6</u> - Major milestone, at this date we must begin the scanning process and cataloging procedures. Not making this date will setback the project. This milestone is dependent on acquiring the necessary hardware to start this process.

<u>Milestone 7</u> - Major milestone, At this point in time the development team at E-SW will begin making a detailed list of specifications for the back-end of the database. This includes making the necessary categories to perform the required searches and store the required documents.

<u>Milestone 8</u> - On this date, we will review project progress and verify that we are making milestones on time. If not the schedule will be modified and/or more resources will be acquired.

Milestone 9 - On this date, we will demo the scanning procedure and storing process for NWT.

<u>Milestone 10</u> - With the specifications of the database completed. A detailed design will be created to outline the development process.

<u>Milestone 11</u> - On this date, we will review the final design and specifications of the database with NWT. This will verify that all requirements are being met or exceeded.

<u>Milestone 12</u> - Dependent on design approval from NWT we will purchase the necessary server hardware (<u>PowerEdge XR2 Industrial Rack Server</u>) so the implementation can be tested on its native hardware during development.

<u>Milestone 13</u> - Major milestone, on this date the specifications and design plan must be finished so construction of the database can begin.

<u>Milestone 14</u> - Major milestone, on this date the construction of the actual database solution must begin. This is dependent on acquiring the necessary hardware and design approval from NWT.

<u>Milestone 15</u> - Review the current progress with the database implementation and verify that the design model is being followed.

<u>Milestone 16</u> - At the end of this month, we plan on demonstrating the initial database implementation. This will open up the project for feedback. Note, since we are using established database software this short development time will allow for an adequate solution to be created.

<u>Milestone 17</u> - Review the current progress being made by the scanning team. This will enable us to verify that we are on track to complete this process on time and allow for changes if necessary.

<u>Milestone 18</u> - Review database construction within the team, and verify that all functionality has been implemented.

<u>Milestone 19</u> - Major milestone, at this point the database will be fully implemented and ready for extensive debugging.

<u>Milestone 20</u> - Open the database to testing. Various test cases will be developed to verify the robustness of the solution. This is dependent on completing the initial implementation.

<u>Milestone 21</u> - On this date, we plan on developing fixes for the discovered defects in the database implementation.

Milestone 22 - At this point, the final database implementation will be presented to NWT for final review.

Milestone 23 - Solutions to the final defects and issues/concerns brought up by NWT will be implemented on this date.

<u>Milestone 24</u> - Major milestone, with the database complete, all cataloged and stored documents created by the scanning team will begin to be loaded into the database software. This is dependent on completing the database solution

<u>Milestone 25</u> - Current progress will be reviewed and changes to the schedule/milestones will be implemented if seen as necessary.

<u>Milestone 26</u> - Major milestone, The front-end portion (web-based client) will be designed. Design for the front-end must begin on this date to avoid setback to the entire project as a whole.

<u>Milestone 27</u> - Review the current progress being made by the scanning team. This will enable us to verify that we are on track to complete this process on time and allow for changes if necessary.

<u>Milestone 28</u> - Review front-end designs within the development team to verify that all requirements and specifications are being met or exceeded.

<u>Milestone 29</u> - On this date, the current designs for the front-end will be presented to NWT for feedback.

<u>Milestone 30</u> - Front-end design completed. The process of designing the database is complete and we are ready to develop the solution. Dependent on design approval from NWT.

<u>Milestone 31</u> - Major milestone, implementation on the front-end must begin on this date to avoid project setback. Dependent on finalizing the design for the front-end.

<u>Milestone 32</u> - Review the current progress being made by the scanning team. This will enable us to verify that we are on track to complete this process on time and allow for changes if necessary.

<u>Milestone 33</u> - Review early front-end implementation to verify all plans and specifications are being followed.

<u>Milestone 34</u> - Review front-end implementation with NWT. This will open up the software for feedback.

<u>Milestone 35</u> - Major milestone, on this date we plan to distribute the software to NWT employees for testing. This will enable extensive bug testing. A database demo will be included to allow users to test functionality. This is dependent on feedback from NWT.

<u>Milestone 36</u> - Begin the debugging process for the front-end solution. We will create a priority scale by which bugs are tackled to ensure the most crucial issues are solved first.

<u>Milestone 37</u> - Review front-end implementation and debugging to verify all plans and specifications are being followed.

<u>Milestone 38</u> - Demo front-end solution for NWT. This will open up the project to additional feedback as it nears its final stages of development.

<u>Milestone 39</u> - Review the current progress being made by the scanning team. This will enable us to verify that we are on track to complete this process on time and allow for changes if necessary.

Milestone 40 - Major milestone, finish construction of the front-end. This date must be kept to avoid setbacks to the project. At this point, we are ready to combine the front and back-end portions of the created solution.

<u>Milestone 41</u> - Distribute the finalized solution to NWT and setup and document access procedures. This is dependent on finishing the implementation of the front-end.

<u>Milestone 42</u> - On this date, we will review project progress and verify that we are making milestones on time. If not the schedule will be modified and/or more resources will be acquired.

Milestone 43 - Combine both developed solutions and verify they are fully compatible.

<u>Milestone 44</u> - Demo combined solution for NWT. This will open up both projects to more feedback and possible design considerations.

<u>Milestone 45</u> - Major milestone, begin combined bug testing. We will distribute the finalized front-end solution connected to the actual database. At this point, the system is ready in some limited form as bugs are solved and the final documents added.

<u>Milestone 46</u> - On this date, we will review project progress and verify that we are making milestones on time. If not the schedule will be modified and/or more resources will be acquired.

<u>Milestone 47</u> - Review the current progress being made by the scanning team. This will enable us to verify that we are on track to complete this process on time and allow for changes if necessary.

<u>Milestone 48</u> - Major milestone, debugging phase of the combined solution will be concluded. At this point, all major bugs are resolved with only minor issues remaining.

<u>Milestone 49</u> - Implement the automatic backup solution for the database. Since we are using an already developed service, integration with our solution will be quick and painless.

<u>Milestone 50</u> - On this date, we will review project progress and verify that we are making milestones on time. If not the schedule will be modified and/or more resources will be acquired.

<u>Milestone 51</u> - Major Milestone, On this date, we plan to have all the required documents, files, pictures, and newspapers scanned and stored in the database and ready for use. Dependent on the scanning team completing their process.

<u>Milestone 52</u> - Evaluate the integrity and completeness of all data in the database. Verify that all documents are stored successfully and finalize any outliers.

<u>Milestone 53</u> - Major milestone, demo the finalized project for NWT. This will open up the final phase of the solution for feedback.

Milestone 54 - Major milestone, project complete and delivered. Ready for use.