New Times: Phase 1 of 3, AKA Homework 3 (1/1/2020)

Title: NT proposal, Software Engineering Project, Phase 1
Due Date: Friday 3/6/2020
Submit: on Sac State **Canvas**; No sample solutions will be posted for NT project
Total Points: 50

Your SWE Project: A fictitious California newspaper company named **The New Times** (NT) has printed and published its daily edition for almost 85 years. During that time, all company records haven been stored in paper form, strictly ordered by date. On average, one full folder of paperwork has been retained for each week of business.

As of 1/1/2021 NT wishes to digitize all future and past paperwork of the last 25 years, going back to 1/1/1995. This means, all such past news clips, newspapers articles, all internal correspondence, past news reports, old sales figures, previous staff information and salaries, taxes, bills, ads, former reader letters etc. are to be digitized. Also going forward, all future documents will be stored in electronic form. Original new paper documents may be retained for a defined, small number of years; that is not part of this project.

In the future system with information in digital form, employees of NT will be able to electronically search stored information by querying for: date, author, subject, headline, geography, and literal strings in stored text.

Ideally NT would like to have the transition be completed within one year (goal # 1). If that turns out to be infeasible, the company is wiling to entertain alternate proposals that achieve the same goal within 2 years (goal # 2). NT sent out an RFP (request for proposal) to your employer E-SW and to other SW companies, to do the work and be compensated for time, expenses, plus a 25% profit. Your employer E-SW wishes to win this contract, and put you in charge. You took on the role of the lead SWE.

You and your team are tasked by E-SW to create and document a proposal for this digitization. So you are the SWE manager in charge of **creating a successful proposal** for the digitization technology, and later for its SW implementation. You have to coordinate with a NT contact person, who checks up on you, who tracks your milestone progress versus agreed schedule.

Key points of this Phase 1 proposal: statement of feasibility; contact persons at NT (most likely you); contributing personnel at NT (is it only you?); commitment to use the product life cycle (PLC) for planning and plan documents; review actual paper data and taking inventory of all NT folders; propose a method of scanning all papers; state whether old information exists on media other than paper; initial schedule with the 1 year completion goal; propose a compute environment that can hold, store, retrieve, and share all data; choice of an industrial database system that allows querying for old and current information.

Key points of future Phase 2 proposal a few weeks later: Publish a project schedule showing how to successfully reach the newspaper's end goal. Not part of this Phase 1 effort.

Key points of Phase 3 proposal: detailed job description of SW engineers needed, their required skill levels, a per-person high-level schedule with measurable milestones, and any other resources need to complete the project. Not part of this Phase 1 effort.

The deliverable for Phase 1 is a single document. This document is a brief proposal structured as follows:

1. Title page   showing project name, date, release number, contact name (you), team name

2. Summary   paragraph expressing what the project is about
3. Feasibility   few paragraphs stating that and why your company can complete this project
4. Contact   Person at NT who is the responsible manager (most likely you)
5. PLC   state that your team is using the PLC; 1 brief paragraph; list 1 or 2 review dates per PLC phase
6. Material review state that, how, when, how long you plan to view + catalogue old papers
7. Scanning techno. state how you propose the scanning will be done; team, technology, in-house or some outside company (if the latter, you still have to manage that effort)
8. Schedule   Show how you plan to complete phase 1 in one year (or else in 2)
9. Environment   Which computing tools and technology do you intend to use?
10. Database   When, how, on which medium will data be stored? How do you plan ensure safeness of data? (I.e. which backup method do you plan?)

Detail on 10. above: Do specify, if you will use an external storage vendor (XStore), some separate company that can store all your digital information electronically off-site? So when the big fire burns down your buildings at your company E-SW, your data are still safe at separate company XStore; likely for a monthly fee. Include that cost in your budget plans.

The NT proposal should consist of no more than few pages of actual writing. Even if physically your proposal uses, say 10 distinct pages, some of those will be brief, perhaps a single phrase or a few paragraphs. A reader should get the impression: yes, this SWE manager can do the job, provided the resources are granted, and the program will likely succeed.