SE 329 Software Project Management

Final Exam – Summer 2020

Instructor: Lotfi ben Othmane

**Directions**

* This is a take home exam. Each student must work independently—this is not a group work.
* This exam is open-book, open-note and open-laptop.
* Your answers need to be precise and clear.
* Type your answers in the word document and submit your document as pdf file.
* Total points 100

Your project manager gave you the initial draft of the project management plan “Local Government Budget Management System (LGBMS) Phases 3 and 4,” which is developed for the New Mexico Department of Information Technology. They requested that you help them to finish it. Answer the following questions to demonstrate your understanding of the plan and contribute to it.

**Question 1 (10 pts):** Summarize the project in one paragraph (up to 7 lines). The questions that the summary should answer include: What problem does the project address? What solution does it propose? What is the project budget? And what is the project timeline?

**Question 2 (10 pts):** Which of the following development approach is the project planned to use: waterfall, agile, iterative?

**Question 3 (15 pts):** Project assumptions are in general project risks that PM should plan to mitigate. Revise the initial project risks of section 1.6 to consider the assumptions of section 1.5. ALL the new project risks should be formulated as in section 1.6.

**Question 4 (10 pts):** Map each of the selected project critical success factors (Section 3.3) to thefour elements of the project management triangle: scope, budget, schedule, and quality.

| Description | PM element |
| --- | --- |
| Project Manager to Keep Project on Schedule |  |
| Procurement manager to keep project within budget |  |
| System will be able to accept bond/loan submission & Analyst/Chief will be able to review and approve |  |
| System will prepare & produce a standard lodgers tax report |  |
| System will **accurately** **calculate** property mill levy rates in order to generate the Certificate of Tax Rates and other property tax reports |  |

**Question 5 (15 pts):** Section 5.1 provides the work breakdown structure (WBS) of the project, section 5.2 provides a table of the main project tasks and estimation of the duration of each of the tasks, and section 5.3 provides the estimated cost of each of the work packages.

1. Provide a map of each of the tasks to the work package that it belongs to and the estimated cost of the package. (We focus on level 2 of the work packages, e.g., 3.6-Deployment and 4.1-Property tax module. )
2. Which module is not planned for in section 5.2?
3. Do you think that the estimated cost for the **development** tasks (section 5.3) is sufficient? (Do not consider testing, etc. ) Justify your answer. (Use $ 80k as the average annual pay rate for the developers.)

**Question 6 (20 pts):** Assume that the PM asks you to finish the draft of the project schedule of Section 5.2 for them. They requested the start date to be October 1st 2020 and the end date to be May 31 2021.

Do you believe that they can deliver the project within the timeframe? Your answer should include the updated schedule considering the project dependencies (that you would decide on) and the critical path of the project. (The critical path will depend on the information that you will add to the schedule.)

**Question 7 (10 pts):** Section 6.5 provides the initial draft of the communication plan. The plan includes only monthly status meetings and weekly progress reports. Improve the communication plan by providing at least 5 information pieces that **you** believe should be communicated between the stockholders to ensure smooth progress of the project.

**Question 8 (10 pts):** Section 6.7.1 provides the planned tracking tools for the project. Suggest **two** more tools or techniques that complement the plan for monitoring and controlling the project.