CPET 581 Cloud Computing: Technologies and Enterprise IT Strategies
Homework Assignment 7-2
Enterprise Cloud Computing Project: Requirements, Preliminary and Detailed Planning

Assigned date: Friday, April 4, 2015
Due date: Thursday, April 16, 2015, before 5 PM
Hand-in requirement (One submission per each team):

- One PPT
- One Project Proposal/Plan (Microsoft Word format)

Enterprise Cloud Computing Project (you may chose other types of enterprise cloud project instead of IPFW's IT service project)
A funding of $20,000 for an Enterprise Cloud Computing Pilot Project (each team should choose one for your own team) to explore a new Cloud Computing service (SaaS, PaaS, IaaS, etc) and related supporting technologies so that the company can stay innovative, competitive and possibly increase their capabilities, revenue/sales, and expand their global markets.

The major tasks during the kick-off phase of this Enterprise Cloud Computing Pilot project are listed below. Each team should prepare a Project Proposal or Plan with the following sections and should complete the reporting needed for "The Conceptualization Phase."

- Project Proposal/Plan
- Project Title
- Executive Summary (or Project Summary)
- Problem Statement and/or Needs
- Project Objectives
    - Important Benefits, ROI, etc
- Project Management Process and Approach (Reference: This project will be implemented through the following IT life cycle phases with major project tasks, deliverables, progress report and reviews)
    - Conceptualization Phase (with all the needed Visio diagrams)
    - Feasibility Study Phase **due April 2** (including all sections listed above)
    - Preliminary Planning Phase (Requirement Definitions) … **due April 16**
    - Detailed Planning Phase … **due April 16**
    - Execution Phase
    - Testing and Commissioning Phase
- Final Project Report, **due April 30**
- Presentation, and Demo … **May 7, 6:00-8:45 PM, all students must present to their final project presentation**
- References

Reference on IT Project Life Cycle and Phases:

The Conceptualization Phase:

The project conceptualization phase includes brainstorming and high-level need study that involves two critical factors:

1) Identify and define the problem
2) Identify and define potential solutions

It is estimated that about five percent (5%) of direct labor dollars will be devoted to this phase.

The Feasibility Study Phase:

The feasibility study phase considers the technical aspects of conceptual alternatives. The purposes of the feasibility study are to:

1) Plan the project development and implementation activities
2) Estimate the probable elapse time, staffing, and equipment requirement
3) Identify the probable costs and consequences of investing in the project
4) Evaluate the alternative conceptual solutions along with associated benefits and costs

It is estimated that about ten percent (10%) of direct labor hours/dollars needed for the project will be devoted to this phase.

The Preliminary Planning (Defining the Requirements) Phase:

In this phase, we should consider the following activities:

1) General scope of the work
2) Objectives and related background
3) Responsibilities and roles
4) Contractor's tasks, support equipment, and performance requirement (if contractors are needed)
5) Data items (documentation)
6) Equipment, computer hardware and software, facilities, and services
7) Schedule performance
8) Exhibits, attachments, and appendices

It is estimated that about fifteen percent (15%) of direct labor dollars needed for the project will be devoted to this phase.

Detailed Project Planning:

In the phase, the following necessary project information requirements are defined at project initiation:

- The statement of work (SOW)
- The project specifications
- The milestone schedule
- The work breakdown structure (WBS)

In addition, the following types of project plans will be developed:

1) Detailed Schedule plan
2) Budget plan
3) Project administration and organization plan
4) Logistics support plan (maintenance planning, manpower and personnel, supply support, support equipment, technical data, training and training support)
5) Monitoring and control plan
6) Security threats, monitoring, and control plan
7) Risk management plan
8) Contracts and procurement plan
9) Continuous improvement plan
10) and others may be added later

It is estimated that about twenty percent (20%) of direct labor dollars needed for the project will be devoted to this phase.

Execution Phase:

In this phase, all software components and application features are developed and integrated into the system, and all features are thoroughly tested. It is a software manufacturing and integration phase where the emphasis is on managing resources and controlling operations to optimize costs, schedules, and quality.

During the software construction phase we will focus on the following activities

- Physical data model,
- Physical process model
- Prepare user guides and documentation and
- Conduct unit testing.

It is estimated that about forty percent (40%) of direct labor dollars needed for the project will be devoted to this phase.

Testing and Commissioning Phase:

In this phase, software components and the complete system will be tested for various functionality levels. The testing activities include

- Unit testing
- Integration testing for checking the completeness of all pieces of a system i.e. files, programs, data structures, command streams etc.
- Functional testing of the individual subsystems, which have been successfully integrated, followed by entire system, will be carried out as per functional test cases.
- User test the system and provide feedback.

It is estimated that about ten percent (10%) of direct labor dollars needed for the project will be devoted to this phase.

Risk Management Plan: The team should create a Risk Management Plan which might include such sections as

- Risk Management Planning
- Risk Identifications
- Qualitative Risk Analysis
- Quantitative Risk Analysis
- Risk Response Planning
- Risk Monitoring and Control
    - Review and reassess the identified Risk Analysis Matrix
    - Demote/promote the identified risk, explain the reason
    - Identify any possible new risks
    - Prepare tables for comparison and shows how are the risks related to the degree of project maturity

Severity of Consequences	F Impossible	E Improbable	D Remote	C Occasional	B Probable	A Frequent
1.Catastrophic						
2.Critical						
3.Marginal						
4.Negligible						