Software Project Management

INF3708

Assignment 04: Due date 28 September 2017

ASSIGNMENT 04 - SEMESTER 2
Total Mark: 70 Marks = 100%

Mark weight: 30%

ASSIGNMENT 04	
Due date	28 September 2017
Study material	Hughes & Cotterell: Chapters 8 and 9
Total marks	70 marks
If your assignment is late, please DO NOT PHONE OR E-MAIL asking for an extension but include a note in your assignment stating the reason for the late submission and we will decide whether or not it will be marked.	

Instructions:

1. **Download and complete** this assignment and submit online in a .pdf format by performing the calculations.

2. The following unique number has to be assigned to the assignment:

UNIQUE NUMBER:
687991

3. Show all your working (calculations).

4. This assignment consists of 4 questions.

Questions from Chapter 8 and 9

Question 1 [14 Marks]

A resource is any item or person required for the execution of the project. As a project manager, explain to your team the seven categories a project resource can fall into. (14)

Question 2 [16 Marks]

Calculating the cost of the Right Solution software development project, should be straightforward, because the organization has standard cost figures for their staff and other resources. The project is scheduled to be finished in four months (120 days including installation and training of staff) since it is a large project. The staff cost for the Right Solution Project is shown in table 1 below.

Peter, who is the main project manager, spends 17 extra days on the project, due to planning and other post project reviews. "You" (assign any name to yourself) are the developing project manager assisting Peter in the Right Solution project and you only spent 5 extra days. The project overhead costs, amount to R500 each day. Emma is scheduled to work daily for the duration of the project. Juan, Bester and Steve are training and support specialists, so their services would only be needed in the fourth month (the last 30 days). The remaining project team members, John (System Design), Ana (Programmer) and Khumo (System tester), will work for three months (90 days), after the first month (30 days) of requirement analysis done by Smith.

Staff member	Daily cost
Peter	R1000
"You" (the name here depends on what you call yourself)	R450
John	R500
Ana	R550
Juan	R300
Emma	R550
Bester	R200
Steve	R200
Khumo	R400
Smith	R400

Table 1 for Question 2

Based on the information in table 1, Calculate the total cost for the Right Solution software development project. Show all your calculation. (16)

QUESTION 3 [15 Marks]

Delight Company Limited (DCL) has employed you as a project manager to oversee the development of their new LOGON software project. After week 1 of the project, you find it necessary to determine the project performance using the Earned Value Management (EVM) technique. Before carrying out the measurements and all the necessary calculations, it comes to your attention that only 50% of the expected work in week 1 was completed. The Planned Value (PV) of the project is R12 000. Assume an actual completion of R16 000.

Consider the earned value for ***one activity*** after one week. Define and find the following measurements of the project. Show all your calculations.

3.1	Earned Value (EV)	(3)
3.2	Cost Variance (CV)	(2)
3.3	Schedule Variance (SV)	(2)
3.4	Cost Performance Index (CPI)	(2)
3.5	Schedule Performance Index (SPI)	(2)
3.6	Explain the meaning of your answers in 3.2 – 3.5 .	(4)

QUESTION 4 [25 Marks]

4.1 **List and explain** the various visualization methods discussed in Chapter 9 of your textbook. (9)

4.2 A Work Breakdown Structure (WBS) analysis for LOGON project (of question 3), in which you were the project manager, was performed, and the work packages indicated in table 2 was identified.

Use the sequencing logic depicted in table 2 to create the Gantt chart for the LOGON project. Indicate clearly the durations of each activity.

NB: During the WBS, it was determined that before work elements **I** and **J** could be started, element **H** had to be completed; and before work elements **K, L**, and **M** could be started, element **J** had to be completed; and before work elements **N, O**, and **P** could begin, element **I** had to be completed.

(16)

Tasks/activities/work element	Work packages	Duration (weeks)
H	Basic design	10
I	Hardware design A	8
J	Hardware design B	6
K	Drawings B	4
L	Software specification	2
M	Parts purchase A	4
N	Parts purchase B	4
O	Drawings A	5
P	Installation drawings	5

Table 2 for Question 4