PalmTech On-Line Knowledge Management System Plan

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COMP3120 - Project Management
Individual Assignment
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1 Executive Summary

PalmTech, a market leader in sales and service of PDAs and flash memory devices has grown greatly in recent times. Sales have increased significantly as has development of new products. This combination of things has put great strain on their service divisions. Worker knowledge needs to be increased over the larger range of more technologically advanced products. Management has decided that there is a need for knowledge to be captured and shared in a large, online information repositary. PalmTech employees could access technical product information from this knowledge input and retrieval system to service the devices easier. Customers will also be able to access this information so they may better understand how to use their devices. This system will also allow employees and users to post and read problem/solution sets so common problems will be easily fixed.

This objective of this project is to design and implement this online knowledge input and retrieval system. There are several requirements and constraints imposed by PalmTech on this project. The project must end before May 2005 to avoid the busier times for PalmTech.

Important dates:

- The project begins on 25^{th} October 2004
- The project will be completed by 28^{th} April 2005

The key personnel involved are:

- Project Manager
- Software Engineer $\times 2$
- Coder $\times 2$
- Tester $\times 2$
- Technician
- Documentation Specialist
- Marketing Manager

The deliverables for this project are the project plan, scope document, SRS (Software Requirements Specification), test plan, SDD (Software Design Description), the software code and documentation. This is fairly standard for a software development project.

The project milestones are project plan complete, analysis complete, design complete, coding complete, system ready for installation and system complete. Between the installation of the software on the servers and the completion of the project is a Live Test. This involves the system being testes for a week in real-world conditions to make sure it is fully ready for use.

2 Statement of Work

2.1 Objectives

The objective of this project is to develop an online knowledge management system to assist customers and employees of PalmTech in using and understanding PalmTech's products. The software also helps PalmTech employees to service these devices by providing expert technical information. The software must comply with the requirements set by PalmTech.

2.2 Requirements

- The project must be finished before May 2005.
- The system must have one section accessible to service technicians and one section accessible by technicians and customers.
- The system must contain knowledge retrieval and input systems and a "lessons learned" facility.
- The knowledge retrieval and input system must provide operational and/or service information on all product models.
- The operational and/or service information must be easily retrievable.
- The service technicians must be able to access both operational and service information.
- Only the operational information must be available to customers. The service information must not be available to customers.
- The "lessons learned" facility must allow technicians and users to log problem/solution sets for future reference.
- The problems in the "lessons learned" facility shall be categorised.
- Both the "lessons learned" facility and knowledge input and retrieval system must provide a means for queries and responses to be posted to the PalmTech community.
- The system must provide a method where repeated queries illicit an automated response containing the solution previously devised for that query..

3 Deliverables

The Deliverables are contained in table 1.

4 Organisation

4.1 Structure

Project Manager, 2 Software Engineers, 2 Coders, 2 Testers, Technician, Marketing Manager, 2 Documentation Specialists.

Deliverable	Date
Management Plan	16 November 2004
Scope	10 November 2004
SRS	27 December 2004
SDD	31 January 2004
Test Plan	25 January 2005
Program	1 March 2004
Knowledge retrieval and input system documentation	23 March 2005
Lessons Learned documentation	11 March 2005

Table 1: Deliverables

4.2 Roles and Responsibilities

The Project Manager is required to work full time on the project from the beginning until the planning phase is completed on November 16. The Manager will then be working only part time on the project supervising can controlling every phase of development until project close on 28 April 2005.

One of the software engineers is required to work part time during the planning phase from October 27 2004 until November 16 2004. When the Analysis begins on November 16 2004 then both software engineers will be required to work full time until the design is completed on January 31 2005. After this only one software engineer will be required to supervise the coding, testing and installation of the system part time from January 31 2005 to April 12 2005.

The coders are only required during the coding phase of development. Both coders will work full time from January 31 2005 till the coding is complete on March 1 2005. After this only one coder will be required to work part time during the testing phase from March 1 2005 to March 30 2005 to fix any bugs discovered.

One tester will be required to work full time to write the test plan from December 27 2004 till January 25 2005. No testers are required after this until the testing phase begins on March 1 2005. During the testing phase, both testers will be employed full time until the testing phase is complete on March 30 2005. Both testers will be again required to work full time during the live testing phase between April 12 2005 and April 21 2005.

The technician is only required to work full time during the hardware installation phase from March 30 2005 until April 5 2005. The technician is also required to work part time during the software installation phase from April 5 2005 until April 12 2005.

The marketing manager is only required to work full time during the Staff training phase from March 30 2005 until April 8 2005.

The documentation specialists are required to work full time during the documentation phase from March 1 2005 until March 23. They will both be writing the different parts of the documentation concurrently.

5 Scheduling

5.1 Work Breakdown Structure

The Work Breakdown Structure is contained in figure 1.

5.2 Planned Project Schedule

The Planned Project Schedule is contained in table 2.

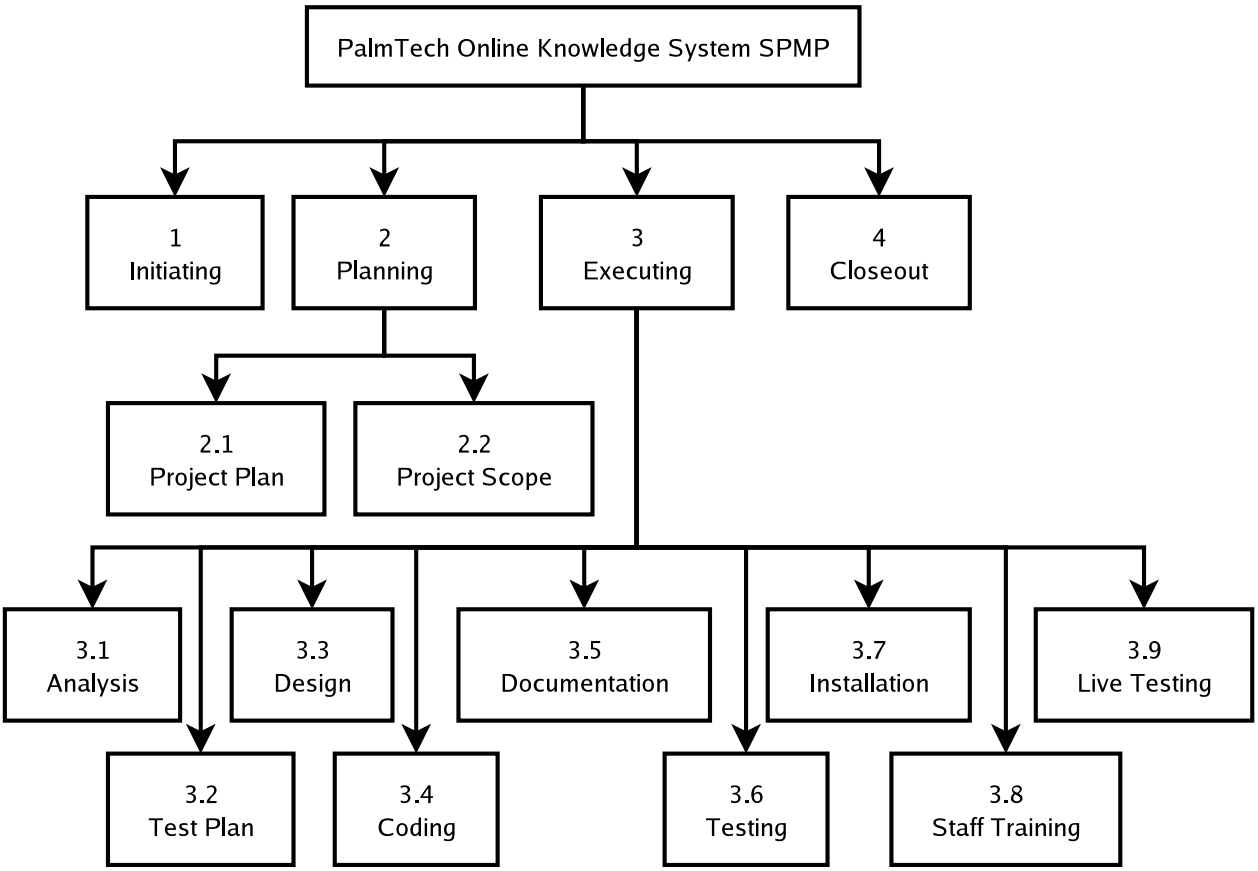

Figure 1: Work Breakdown Structure.

5.3 Milestones

The Milestones are contained in table 3.

6 Resource Plan

6.1 Material Costs

This project is being run from within a company that has most of the material resources to cope with the project already. This means that the vast majority of costs in this project will be Personnel costs from wages. The total cost of these wages has been calculated to be approximately $85,000 in the attached costing sheet. This amount is most likely a very optimistic estimate of the total cost. There will also be some material cost for the servers which the system will be running on during its lifetime.

7 Monitoring and Control

The Project Manager is required to work part-time throughout the project supervising the progress being made by the team. If any problems or slippage arise then they will be brought up in the next weekly team meeting, discussed and solutions agreed upon by the whole team.

1	**Initiating (3 days)**
2	**Planning (14 days)**
2.1	**Project Plan (14 days)** - Write the project plan.
2.1.1	Define and logically order the tasks to be performed to complete the project.
2.1.2	Determine the scheduling information for the tasks in the project
2.2	**Project Scope (10 days)**
2.2.1	Converse with the client and determine the scope of the project.
2.2.2	Write the Scope Document with the information obtained from the client.
3	**Executing (112 days)**
3.1	**Analysis (29 days)**
3.1.1	Talk to the client and determine the requirements for the project.
3.1.2	Write the Software Requirements Specification with the information obtained from the client and the information contained in the Scope Document.
3.2	**Test Plan (21 days)**
3.2.1	Write the Test Plan with cases to test all requirements defined in the Software Requirements Specification.
3.3	**Design (25 days)**
3.3.1	Write the Software Design Description to comply with all the requirements defined in the Software Requirements Specification.
3.3.1.1	Design the major high-level architecture of the system.
3.3.1.2	Design all the rest of the low-level system components.
3.4	**Coding (21 days)**
3.4.1	Write the code for the system using the design specified in the Software Design Description.
3.5	**Documentation (16 days)**
3.5.1	Write the documentation for the knowledge input and retrieval part of the system.
3.5.2	Write the documentation for the “Lessons Learned” part of the system.
3.6	**Testing (21 days)**
3.6.1	Test the knowledge input and retrieval part of the system using the Test Plan.
3.6.2	Test the “Lessons Learned” part of the system using the Test Plan.
3.7	**Installation (9 days)**
3.7.1	Install all the hardware necessary for the system to run on.
3.7.2	Install the system on the hardware.
3.8	**Staff Training (7 days)**
3.8.1	Train all staff who shall be using the system in the use of the system.
3.9	**Live Testing (7 days)**
3.9.1	Test the software in real-life conditions to make sure it is ready for use.
4	**Closeout (5 days)**

Table 2: Scheduling Information

7.1 Scope Management Plan

The Scope Document will be signed off by the client before the rest of the project goes ahead. Once the client has agreed on the scope of the document then they will have to stand by that original agreement. The same applies to the requirements specifications. If for some reason the client devices that the scope must change or the project cannot go ahead then the best efforts will be made to accommodate these changes. If this does occur however then the original guarantees made about resource and time usage cannot be kept and must be reevaluated and the client informed of this.

Milestone	Date
Project Planning is complete.	November 16 2004
Completed Analysis	December 27 2004
System Design is complete	January 31 2004
All coding complete	March 1 2005
System is complete and ready for installation	March 30 2005
System installation complete	April 12 2005
System live testing complete and system fully operational nationally	April 21 2005

Table 3: Milestones

	Consequences				
Likelihood	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (almost certain)	H	H	E	E	E
B (likely)	M	H	H	E	E
C (moderate)	L	M	H	E	E
D (unlikely)	L	L	M	H	E
E (rare)	L	L	M	H	H

Table 4: Risk Analysis Matrix

8 Risk Analysis

8.1 Risks

The following risks are analyzed using the risk analysis table 4.

8.2 Constraints

- The Project must start on Monday 25^{th} October 2004.
- The Project must be finished before May 2005 to avoid the busier times for PalmTech.

8.3 Assumptions

- PalmTech will be able to supply the needed personnel to achieve the objectives of this project.
- PalmTech has enough funds to see the project through to completion.
- PalmTech is well equiped as a software engineering environment with all the equipment necessary to develop high-quality software.
- None of the team members is planning on going on a long holiday over the new-year period.
- None of the serious risks identified in the risk analysis take place.

Risks	Level	Controls
PalmTech going out of business	H	Although this is a very rare event the consequences would be very catastrophic to the project. Unfortunately there is not much you can do about this.
One or more team members becoming ill	M	If this happens then there is enough slippage to allow for it. If one of the members becomes ill for an extended period of time then another person will be borrowed from PalmTech to take up the slack.
Data loss through any means	H	Greatly reducing the severity of any data loss shall be achieved by regularly (daily) backing up all of the project data in a secondary location. In this way only a small amount of work (a day max) can be lost). In the extremely unlikely event that both original and backup of any data are destroyed then that data would have to be created again from scratch drastically stunting the project. The likelihood of this occurring however is intensely minute.

Table 5: Risks