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***There’s an App for That!***

***Mobile Application Development***

CEIS390: Week 6—Project Schedule/Budget and Resource Management Plan

**Project Schedule/Budget & Resource Management Plan**

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This paper was prepared for CEIS390

taught by Professor D. McCann

Game Proposal Report Week #: 6

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# Part 1: Project Budget (Cost Management)

## Approach to estimating

Green Man's Pantry has chosen Shade Leaf Engineering & Consulting to implement a new mobile application electronic data interchange platform service, and had together projected that the initial development costs of its desired mobile application services with the purchases of designing a new databases and architecture for web application development was initially estimated at $1,600,000.00—Shade Leaf Engineering & Consulting is a new start-up company with limited but effective resources; Green Man's Pantry is investing its eBusiness strategies with Shade Leaf Engineering & Consulting to promote the companies partnership in the reduction of carbon footprinting through the use of solar panel technology, and its diverse approaches in eco-friendly energy production, such as the use of electric fish to power it's headquarters building, allotting initial funds upfront for development costs. The initial budgeting management process was projected through a top-down approach where the product owner, consultant, stakeholders, and managers planned the years project portfolio, estimating the number of resources required for developing a rough project timeline and cost estimate, giving the project a kick-start with funding resources. As the initial budgeting management process was projected through a top-down approach, the project will progressively move into a bottom-up approach, where the budgeting will be refined, identifying operating system conflicts and developing detailed project budgets, schedules and monthly forecasts, based on direct input from the not only the core team, but also the development team, who will be implementing the project.

## Budget Table (Original and Actual columns only)

## Budget Table (Original and Actual; add third column for the Variance)

Two tables have been provided outlining the original estimated budgeted costs of the project versus the actual budgeted costs of the project—original estimated table = original software development budget, and actual budgeted costs = projected software development budget. The original estimated budget only includes unknown rough estimates from managers outlining a budget plan by defining project tasks and work packages for consultant services for one year, while the actual budget costs table includes refined work packages/chunks, with accurate estimates at a detailed level. Initially, the top-down approach was used in planning the year's project portfolio, estimating the costs needed for developing a rough project timeline and cost estimate to be used as a guideline but with estimates that aren't very precise. After the initiate estimate were submitted, detailed planning began and the project moved into a bottom-up approach, where the project team defined tasks, making accurate estimates at a detailed level. In the chart provided here, estimated vs. projected budgets are displayed, showing the vast differences with the detailed planning in the cost variances.

## Budget Contingency

The budget contingency is currently recognized as a separate project cost estimate type, equaling fifteen percent of the total estimated cost of the projected software development budget that has been estimated to be accurate estimates. The idea of the budget contingency is that if the project runs into delays, that incur additional expenses, these additional expenses can be taken from the contingency plan, with a memo request for extension/approval, accounting for the purchase, the funds spent, and account drawn from. Any left-over budgeting funds will start the allocation of extra funds to cover uncertainties and improve the chances that the project can be completed within the time frame originally specified. Sometime during the system testing phase, management will determine if additional contractor/support will be needed for architectural design of the software mobile application, for successful project completion. If the contingency budget funds are not used throughout the software development lifecycle of this project, then the funds will be re-allocated, into the next development phase of the web development application services, after the completion of the mobile application development phase.

# Part 2: Resource Management

## Resource Assignments

Currently, Shade Leaf Engineering & Consulting has no other major software development projects in the works and the resources assigned to the project are assigned solely to the functional aspects within their job scope, with no additional resources needed for the development of the project. The project executive assigned to oversee the completion of the project, is primarily working on the There's an App for That! project, with no other major projects assigned—though the project executive may be assigned other duties as the project executive and the senior simple software engineer are one and the same person, such as system architecture design, module coding, system testing, etc. The project executive, product owner, executives, stakeholders, development team, management, and core team members all work eight-hour days, seven days a week; with overtime as needed.

Since overallocation of resources is signaled in red, then any overallocation of resources will be solved by the project executive by linking involved task if related within a subdivision. If the work assigned exceeds the time available, then the work may be moved to new dates to meet time availability within a given day. Green Man’s Pantry is aware that Shade Leaf Engineering & Consulting consists of solely four Software Engineers, with the project moving to meet the scheduled milestones at the engineers’ pace.

The project executive will report to the product owner, executives and stakeholders; directors, managers, development team, and external analysts will report to the project executive, while staff personnel will report to the managers of their respective departments. The project executive will submit updates to stakeholders periodically, while the development team will submit reports to the project executive weekly as tasks and milestones are met. Director's and manager's will also be required to submit feedback when called upon, with the information being submitted to the project executive which will also be shared with the product owner and stakeholders. The project executive will create a clear sense of the mission, with widely shared and understood goals to project better project performance, where all team members will understand the overall project objective and how their specific performance will contribute in achieving the project objectives—the success of the project not only consists of a functioning mobile application but also successful user acceptance testing and feedback from core team members.

## Project Team Management

In the event that conflicts arise during the development of the mobile application between personnel, the

project executive will be the first source of resolution, using tactics such as mediating conflicts employing diffusion or confrontation solutions—arbitrating conflicts by imposing judgement on warring parties using company policies for solutions—accepting conflicts in knowing that some personalities of project team members simply don't jive, or by eliminating the conflict by critically evaluating the nature and severity of the conflict and either transferring the team member or removing the team member from the project all together. The project executive understands the project has scarce resources, which may lead to differentiation among other department leads, and uncertainty with lines of authority with the progress of development of the project. The project executive will address all conflicts through mediation, arbitration, control, acceptance or elimination; unless the conflict cannot be resolved and needs to be handled through an alternative functional department.

## Organizational Structure

A strong matrix structure has been selected for this software development project. This structure is the most functional for Shade Leaf Engineering & Consulting as Green Man’s Pantry has given full autonomy of the software development life cycle to the independent consulting company. The lead project executive has been granted full authority over the course of the project and the budget, so that in, not only is their mediations between executives and the software engineers, but so that the software engineers also fall into a hierarchy management structure for reporting purposes. This will allow the project executive to control most of the projects activities and functions, including the assignment and control of project resources, and key decision-making authority; though some functional managers will have some input into the assignment of personnel from their departments. This matrix structure also allows for open communication and knowledge sharing within the work group, while also allowing employees to communicate across the boundaries, creating a pleasant, cooperative, work environment that helps in integrating the organization. Employees are also able to enhance their skills and knowledge by taking part in different parts of the project.

# Deliverables for Week 6:

1. **MS Project file** (.mpp) updated with resource assignments, durations, and cost in MS Project Plan.
2. **MS Word file** (.docx) with report of project budget and resource management (all items above). Please make sure you have a cover page and table of contents for this Word document.
3. **Statement of Participation** and status update

**NOTE:**

*All three files above* must be submitted to the Week 6 dropbox by one team member. If you used Excel tables to create your budget table information and copied it into this one Word document, you can also submit the original Budget Excel file (optional) separately to the dropbox.