



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

Date

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Course Code

(PMG506)

Advanced project Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس ١٧-٠٥-٢٠٢١ في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط ١٢.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر 1.5 line spacing
- عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: Eng. Dr. Akram M. S. Ali

Project:

You are required to document your role in administering a project. The project may be set in a business, social, sporting, or family environment but must be of a significant size and scale. If you do not have an actual project to write about you may complete the project hypothetically. **This report will be between three to six pages in length.** This is a significant research project.

Your report must address ONE of the following issues:

1. Identify and describe the purpose, scope, and objectives of the project. **Display this information using an appropriate tool.**
2. Describe how the team is given an outline of the project.
3. Describe the strategies that are going to be set up to maintain communication with the team members.
4. Describe the tools that are going to be used to monitor the goals, time frames or milestones.
5. Identify project milestones and activities. **Display this information using an appropriate tool.**
6. Create a budget and link the costs to the key milestones for a project.
7. Describe how you are going to divide tasks and resources amongst a project team. **Display this information using an appropriate tool.**
8. Briefly describe how the progress will be monitored.
9. How are current project records maintained? Who has responsibility for this? provide some recommendations on how this process could be improved.
10. Describe the current procedure for finalizing projects. Create your own procedure and identify how you will evaluate the success of the project.
11. Legislation that may affect the project including health and safety, and anti-discrimination legislation.

Best of luck...

المشروع:

مطلوب منك توثيق دورك في إدارة مشروع. قد يتم تعيين المشروع في بيئة تجارية أو اجتماعية أو رياضية أو عائلية ولكن يجب أن يكون بحجم مناسب. إذا لم يكن لديك مشروع فعلي لتكتب عنه، فيمكنك إكمال المشروع افتراضياً. ستكون هذا التقرير من ثلاث إلى ست صفحات.

يجب أن يعالج تقريرك أحد القضايا التالية:

١. تحديد ووصف الغرض والنطاق والأهداف من المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
٢. صف كيف يتم إعطاء الفريق مخططاً تفصيلياً للمشروع.
٣. وصف الاستراتيجيات التي سيتم وضعها للحفاظ على التواصل مع أعضاء الفريق.
٤. صف الأدوات التي سيتم استخدامها لرصد الأهداف أو الأطر الزمنية أو المعالم.
٥. تحديد معالم المشروع والأنشطة. اعرض هذه المعلومات باستخدام أداة مناسبة.
٦. إنشاء موازنة وربط التكاليف بالمعالم الرئيسية للمشروع.
٧. صف كيف ستقوم بتقسيم المهام والموارد بين فريق المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
٨. صف بإيجاز كيف سيتم رصد التقدم.
٩. كيف يتم الاحتفاظ بسجلات المشروع الحالية؟ من المسؤول عن هذا؟ تقديم بعض التوصيات حول كيفية تحسين هذه العملية.
١٠. وصف الإجراء الحالي لإنهاء المشاريع. قم بإنشاء الإجراء الخاص بك وحدد كيفية تقييم نجاح المشروع.
١١. التشريعات التي قد تؤثر على المشروع بما في ذلك الصحة والسلامة، وتشريعات مكافحة التمييز.

مع تمنياتي بالتوفيق..

Create a budget and link the costs to the key milestones **for a project (building a house)**

Introduction:

Construction projects are highly structured endeavors, whether that's building a shopping mall or a single-dwelling residence. They have a lot of moving parts and people that must be precisely coordinated. Just like any other project, construction project management has phases, from design to planning to scheduling to the build itself. Each of these phases are complicated enough by themselves, but in congress with the whole project, they grow exponentially more complex.

In brief, construction project management is the process of managing construction projects. But when you're talking about managing a construction project in comparison to other types of projects, the distinction is mostly that construction is mission-based. That means that the project's organization ends with the end of the project build. (Barron) ¹.

Every project boils down to money. If you had a bigger budget, you could probably get more people to do your project more quickly and deliver more. It is important to come up with detailed estimates for all the project costs. Once this is compiled, you add up the cost estimates into a budget plan. It is now possible to track the project according to that budget while the work is ongoing. A Budget is a financial plan for your entire Design/Build process, the primary purpose of preparing a Budget is to understand and control costs. (Landis, 1976) ².

A budget is a financial plan used to estimate future income and expenses. The budgeting process may be carried out by individuals or by organizations. Budgets help an entity determine whether it can continue to operate with its projected income and expenses (jaen murry, 2008) ³.

There are benefits from preparing the budget because it is a planning tool due to its relevance to achievement, the ability to reach needs, forecast future needs, expected prices and potential risks to obtain resources. It is also considered a monitoring and measuring tool.

Literature review:

Estimate Costs:

Estimate Costs is the process of developing an approximation of the cost of resources needed to complete project work. The key benefit of this process is that it determines the monetary resources required for the project. A cost estimate is a quantitative assessment of the likely costs for resources required to complete the activity. It is a prediction that is based on the information known at a given point in time, Costs are estimated for all resources that will be charged to the project. This includes but is not limited to labor, materials, equipment, services, and facilities, as well as special categories such as an inflation allowance, cost of financing, or contingency costs. Cost estimates may be presented at the activity level or in summary form.

Estimate Costs: Tools and Techniques:

1) Analogous Estimating:

Analogous cost estimating uses values, or attributes, of a previous project that are similar to the current project. Values and attributes of the projects may include but are not limited to: scope, cost, budget, duration, and measures of scale (e.g., size, weight). Comparison of these project values, or attributes, becomes the basis for estimating the same parameter or measurement for the current project. (project management institute, 2017) ⁴.

2) Parametric Estimating:

Parametric Estimating is a quantitatively based estimating method that multiplies the quantity of work by the rate or uses an algorithm in conjunction with historical data to determine cost, budget, or duration estimates. The best way to describe it is with an example. Suppose you are working on a companywide network upgrade project. This requires you to run new cable to the switches on every floor in the building. To come up with an estimate, you can use parametric estimates to determine activity duration estimates by taking a known element—in this case, the amount of cable needed—and multiplying it by the amount of time it takes to install a unit of cable. In other words, suppose you have 10,000 meters of new cable to run. You know from past experience it takes 1 hour to install 100 meters. Using this measurement, you can determine an

estimate for this activity of 100 hours to run the new cable. Therefore, the cable activity duration estimate is 100 hours. (heldman, 2018) ⁵.

3) Top - Down Budgeting:

The top - down approach to budgeting is based on the collective judgments and experiences of top and middle managers concerning similar past projects. These managers estimate the overall project cost by estimating the costs of the major tasks, which estimates are then given to the next lower level of managers to split up among the tasks under their control, and so on, until all the work is budgeted. (John Wiley & Sons ,INC, 2011) ⁶.

4) Down- Up Budgeting:

This method is considered the most accurate in preparing project budgets, because it is based on the same principles that are followed in preparing both the project plan and project scheduling, and this method in practice is the pricing of the project plan and is based on two main centers:

1. The preparation of the budget depends on the answer to the following questions:

What materials are needed?

What is the amount of resources?

When do we need these resources?

What is the cost of these materials?

2. The preparation of the budget depends on the segmentation of the work structure (Work Break Structure – WBS) that is, to analyze the project into tasks and task into to work packages and work packages to work units and work unit to activities Upon reaching the first part, which is the activity that an individual or group will perform, he is required to answer the questions mentioned in Clause 1, this is in order to determine the necessary time, the necessary human resources and the materials required to implement this activity, and the cost of these resources combined is the estimated budget for this activity, and when the activities, work units, work packages and tasks are regrouped from an administrative level to a higher level until they reach the project manager in a collective form, Where it is reviewed and audited and given the final form,

and accordingly, the calculation of the project cost was carried out in a gradual and rolling manner from the lowest level to the highest level until we reach the total estimated budget of the project. (موسى، ٢٠١٤).⁷

Methodology:

The choice of one of the aforementioned methods in preparing the estimated budgets in the projects depends on a set of factors:

1. Project size: The larger the project, the more accurate it will be needed, such as the bottom-up method.
 2. Diversity of the project: Does completing the project require limited and few activities or is there a diversity in the project's outputs and a multiplicity of activities and activities required to complete the project, the greater the diversity, the more the project becomes in need of methods that have a higher degree of accuracy, such as the top-down method.
 3. Project management style: If the administration is centralized and retains the right to make decisions in its own hands, then it tends to use a top-down method, but if the administration is decentralized and believes in the participation or empowerment of workers, then it will involve the lower ranks and thus the bottom-up method becomes the most appropriate.
 4. The prevailing culture in the project: If the dominant culture is a classic, conservative, traditional culture, it will tend to centralize decision-making and the higher management retaining the decision-making powers and thus using a top-down method, but if the culture is open and calls for change and adaptation to environmental variables, it will tend to Decentralization in decision-making and the use of a bottom-up approach.
- **Advantages and disadvantages of the Analogous Estimating method:** The theoretical estimate is considered to be less costly and time consuming than other methods, but less than in accuracy, and it is more reliable when previous projects are similar in reality, not just in form, and when the team members who prepare these estimates have the necessary expertise. (معهد ادارة المشروعات، ٢٠٠٨).⁸
 - **Advantages and disadvantages of the Parametric Estimating method:**

This method can produce higher levels of accuracy depending on the complexity of the model and the basic data embedded in it. Parametric cost estimates can be applied to the entire project or part of it and may be used in conjunction with the rest of the estimation methods. (معهد ادارة المشروعات، ٢٠٠٨).

- **Advantages and disadvantages of the Top-down method:** The advantage of this approach is that overall budget costs can be estimated with fair accuracy, though individual elements may be in substantial error. Another advantage is that errors in funding small tasks need not be individually identified because the overall budget allows for such exceptions. Similarly, the good chance that some small but important task was overlooked does not usually cause a serious budgetary problem. The experience and judgment of top management are presumed to include all such elements in the overall estimate. In the next section, we will note that the assumptions on which these advantages are based are not always true) John Wiley & Sons, INC (٢٠١١).
- **Advantages and disadvantages of the Down-up method** One of the advantages of this method is that it is more accurate than the previous methods, because the people concerned in direct work sites are better able to determine their actual needs than others, and one of its positives is that it includes managers in the lowest ranks in the budget preparation process, and this helps to increase their commitment and their connection to implementing this budget. This helps to increase their commitment and relevance to the implementation of this budget because they participated in its preparation, and this method is considered a training performance for the various administrative levels in preparing budgets and increasing the practical experience of the participants in preparing the budget. (موسى، ٢٠١٤).

Results and Discussion:

We can now choose a method from the Down- up to prepare the budget for building a home because it is considered more accurate in a house-building project due to the need to make a plan for the project and the project can be scheduled and thus includes the basic pricing of the project plan, And by referring to the foundations of choosing the method of preparing the estimated budgets, we find that the size of the project is large, as well as there is a diversity in the activities and items of the project such as electricity,

plumbing, paints, etc. Therefore, we need a more accurate method of budgeting, Thus, using this method to prepare the budget will help the success of the project.

But this method is considered more accurate and comprehensive for managers in the lower ranks in the budget preparation process, which helps increase their commitment and relevance to the implementation of this budget, but risk the chance of overlooking some small but costly tasks.

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