

International Journal of Computer Science and Mobile Computing

A Monthly Journal of Computer Science and Information Technology

ISSN 2320-088X

IJCSMC, Vol. 3, Issue. 9, September 2014, pg.432 – 441

RESEARCH ARTICLE



PROJECT PLANNING

A Research Paper



Presented By:
Ritika Manchanda
Sanjay Yadav
Stela Sarkar

A Research Paper

Project Planning

The purpose of this paper is to understand about Project management and have knowledge regarding how we deal with the project when we are working either individually or in a team. How the work is assigned to the team members and how we need to fulfill the given project in the assigned time limit. What are the important things which we always need to keep in mind?

Project management is art and science of planning projects and the way we lead them to another level. It is sub-discipline of managing a project in which projects are planned (how to work), implemented (use what we have learnt), monitored (to check) and controlled. Project management is a common thing which we need each and everywhere. The time we step into the industry this is the thing which we need to know. Here in this research paper we will focus on software project planning. How we will plan for a software project and then move forward to its completion.

DEFINITION: The main objective of project planning is to know the scope of the project, to estimate work involved, and to make a project schedule. Project planning begins with the requirements that defines the software which is to be developed. Then project plan is developed which describes the tasks that will lead to the completion of the project.

The project monitoring and control is done to keep the team i.e. the people involved in the project and management up to date regarding the progress of the project. If project deviates from the schedule, then project manager can take action for the correction of the problem. Project monitoring and controlling involves status meetings and to gather status from team. When changes are required to be made, then change control is used to keep products up to date.

It is a part of project management, which concerns to the use of agenda such as Gantt charts to schedule and subsequently give the project report within the project environment. The project scope has been defined and appropriate methods for completing any project has been determined.

Following some of the steps, the durations for various tasks which are necessary to complete the work have been listed and are grouped in a work breakdown structure. Project planning is used frequently to organize the different areas of a project, including the project plans, work loads and management of teams and also the individuals.



The logical dependencies between the tasks are defined by using an activity network diagram that permits identification of that critical path. Project planning must be done before the project is really started and this makes it inherently uncertain. So the duration of the tasks are often estimated through weighted average of optimistic, pessimistic, and normal cases. The crucial chain method adds "buffers" in planning to predict potential delays in the execution of the project. Slack time /Float time in the schedule can be calculated by using project management software. And the necessary resources can also be estimated and costs for each and every activity can be allocated to each of the resource, giving the total cost of the project. At this particular stage, the project schedule may be enhanced to achieve an appropriate balance between the usage of resources and the duration of the project to comply with project objectives. Once established, the project schedule becomes what we call as the baseline schedule. The progress will be measured in averse to the baseline schedule all through the life of the project. Analyzing the progress and comparing it to the baseline schedule is called as earned value management.

The key for a successful project is the planning. Creating a project schedule is the first thing one should do when contracting any kind of project. Often project planning is ignored in approbation of getting on with work. However, a lot of people fail to realize the value of a project planning in saving time, money and a lot of problems which could arise later. We will have a simple and practical approach to project planning.

STEP 1: PROJECT GOALS

A project is successful when the project meets the needs of the stakeholders. A stakeholder is a person, organization or a group that has interest or concern for an organization. The one who is either directly or indirectly affected by project.

Initially, it is important to distinguish the stakeholders in the project. It is not easy to distinguish the stakeholders of a project, especially those who impacted indirectly.

Some examples of stakeholders are:

- The project sponsor.
- Those customers who receives the deliverables.
- Users of the project outputs.
- The project team
- The project manager

Once you understand who are stakeholders, the next step is to recognize their needs. And the best way to do this is by conducting interviews of the stakeholders. We should take time throughout the interviews to find out the genuine needs that creates real benefits. Often the stakeholders talk about the needs that are not relevant and they don't deliver benefits. These could be recorded and set as a low priority. While a priority chart can be set for the needs of the stakeholders so that it is easier for us while we are working and can easily make out their requirements.

The next step, once the interviews have been conducted, and we have a comprehensive list of the needs and we need to prioritize them. From the prioritized list, one can create some set of goals that could be easily measured. An approach for doing this is to review them in averse to the **SMART** principle. This way it will be easier to know when a particular goal has been achieved.



Once a clear set of goals have been established, they should be recorded in project plan. It could be useful to include the needs and the expectations of the stakeholders.

This is the most demanding part of the planning process completed which has been. Now it's time to move on and look at project deliverables.

STEP 2: PROJECT DELIVERABLES

Using the goals which have been defined in step 1. First, we make a list of things that the project needs to deliver in order to meet the goals which have been defined. We need to specify when and how each item should be delivered.

Add deliverables to the project plan and that too with an estimated delivery date. Some more accurate delivery dates will be established during the scheduling phase, which is described in the next step.

STEP 3: PROJECT SCHEDULE

First of all, we create a list of tasks that are required to be carried out for each deliverable which has been identified in step 2. For each of the task we identify the following:

- The amount of effort required for the completion of the task.
- The resources which will carry out the task.

Once we have established the amount of effort required for each task, we can work out for the effort required for each and every deliverable, and also an accurate delivery date. We will update our deliverables section with some more accurate delivery dates.

At this particular point while planning, we could choose to use a software package like Microsoft Project to create our project schedule. Alternatively, we can use any of the free templates available. Input all the deliverables, resources, durations and tasks who will complete the tasks.

A common problem which has been discovered at this point is when a project has imposed a delivery deadline from the sponsor which is not realistic and based on our estimates. If we discover such a case, we must contact the sponsor immediately. The options which we have in this situation are:

- Renegotiate the deadline (project delay).
- Employ some additional resources (increased cost).
- Reduce scope of the project (less delivered).

We can use project schedule to justify pursuing any one of the options.

STEP 4: SUPPORTING PLANS

Here we have plans which we should create as a part of the planning process. These can also be included either directly or indirectly in the plan.

- Human Resource Plan
- Communications Plan
- Risk Management Plan

Now we will see what these plans describe.

Human Resource Plan

It is identified by the name itself that it consists of the individuals and organizations with a leading role in the completion of the project. The members involved in the project identify their strengths and their weakness and work is allotted according to their strengths.



This helps each of the members to complete the project in a better way means with quality and the project also completes in the allotted time. It describes how many people or members are required to carry out the project.

In a project we have different modules and they are allotted to different departments and finally the work which is carried out by all the departments helps the organization to complete the goal and to come up with a new product in the market. We must make sure that each of the product which is being launched in the market should not be defective and it should be good in each and every aspect. For each of the resources we make a list of the starting date, the estimated duration of the completion of a particular module and also the method which is being used for the completion of that particular module. We create a single sheet which contains all these information.

Communications Plan

Communication is one of the most important thing which we should take care of. We talk to our stakeholders to know their requirements before we start the project. But while we are working on that project we should communicate with the stakeholders because interacting with them helps us to make less mistakes and will lead to less errors or faults in our project. And as a result, we will have a project coming up with a very good quality and which fulfills the aim of the stakeholders. And makes our project a success for our organization.

So, we create a document which shows that who all needs to be kept informed about the project and how they will be receiving the information. The easiest way is to give a progress report. The progress report could be Weekly report or a monthly report. In this way the stakeholder would also be satisfied by having a look at his project which is being carried out by the organization. The progress report shows how the project is going on, what are the milestones achieved and the planning for the next module.

Risk Management Plan

Risk management is an essential part of project planning and managing. In spite of the fact that it is often overlooked, it is important to identify risks to the project, and should be prepared if something bad happens.



Some examples of common project risks which could occur:

- Time and cost estimates.
- Customer feedback cycle is slow.
- Unexpected budget cuts.
- Unclear roles
- Unclear responsibilities.
- Stakeholder input is not clear, or their needs are not properly understood by the project manager.
- The changing requirements by the Stakeholders after the project has been started.
- Addition of new requirements by the Stakeholders after the project has started.
- Poor communication which results in misunderstandings, rework and quality problems.
- Lack of resource commitment.

Risks could be tracked using simple risk log. Adding each risk we have identified in our risk log. Mentioning them, then preventing them from occurring and reviewing them. When we ignore the risks then they don't go away.

This helps us to make a project and not only a project but a successful project which will become an asset for the organization.

REFERENCES:

- ❖ <http://www.projectsmart.co.uk/project-planning.php>
- ❖ <http://www.projectsmart.co.uk/project-planning-step-by-step.php>

Also includes net search and many other sites.....

