

5.5: Resource Allocation

Based on the Resource Management Plan and according to the estimation methods, the project team should identify the resources necessary for the project activities and should allocate them to execute the project activities. Allocation of resources is named “Resource Loading”. Then, the project team can have a resource usage calendar that exhibits the amounts of resources assigned to each activity during the project. Let’s continue with an activity list and begin to add resources.

Table 5.1: Resource Loading for 1.3 “Preparation of Project Charter”

Activity List for Project “Grocery LLC’s M-Commerce Project”					
Activity identifier	Activity title	Scope of Work	Person Responsible	Predecessors	Resources
1.3	Preparation of Project Charter	The project charter that will authorize the project manager to undertake the responsibility of the project and apply the resources to project activities will be prepared.	Project Manager	1.1 1.2	
1.3.1	Develop high-level scope	The high-level scope consists of the project purpose, measurable project objectives, high-level requirements, project description, boundaries, key deliverables, and assumptions and constraints.	Systems Analyst 1	1.2	Systems Analyst 1
1.3.2	Identify overall project risks	This includes the identification of the risks that affect the project in general.	Systems Analyst 2	1.3.1	Systems Analyst 2
1.3.3	Develop high-level schedule	This includes the estimation of the overall schedule with summary milestones.	Team Member 1	1.3.1	Systems Analyst 1
1.3.4	Identify main resources and develop a high-level budget	This includes the initial estimation of all resources (human resources, physical resources, and services), and the budget.	Team Member 2	1.3.3	Systems Analyst 1 Systems Analyst 2
1.3.5	Identify key stakeholders and project team member roles	Stakeholders with high-interest levels and/or power levels will be identified. The project team’s composition will be created. The qualifications required should be detailed. The project sponsor’s authority will be detailed.	Team Member 3	1.3.1 1.3.2	Systems Analyst 1 Systems Analyst 2 Sales & Marketing Expert 1 Sales & Marketing Expert 2
1.3.6	Develop project approval requirements and project exit criteria	Based on the project scope and other sections of the project charter, project approval requirements and exit criteria should be detailed. Exit criteria include the conditions that describe the early termination of the project.	Team Member 1, 2, 3	1.3.1 1.3.2 1.3.3 1.3.4 1.3.5	Systems Analyst 1 Systems Analyst 2

In Table 5.1, we only assigned human resources. We also assume that all the people work full-time, which is 8 hours a day. They work during the weekdays, which makes the weekly total work hours forty. In Table 5.2, we can see how human resources are distributed to the tasks by week.

Table 5.2: Resource Usage Calendar

Resource Name	Work	May 2	May 9	May 16	May 23	May 30	June 6
Systems Analyst 1	240 hrs	40	32	40	64	40	24

Resource Name	Work	May 2	May 9	May 16	May 23	May 30	June 6
Clarify project purpose and determine project scope	40 hrs	40					
Develop high-level scope	32 hrs		32				
Develop high-level schedule	48 hrs			40	8		
Identify main resources and develop a high-level budget	16 hrs				16		
Identify key stakeholders and project team member roles	64 hrs				40	24	
Develop project approval requirements and project exit criteria	40 hrs					16	24
Systems Analyst 2	200 hrs	40	0	40	56	40	24
Clarify project purpose and determine project scope	40 hrs	40					
Identify overall project risks	40 hrs			40			
Identify main resources and develop a high-level budget	16 hrs				16		
Identify key stakeholders and project team member roles	64 hrs				40	24	
Develop project approval requirements and project exit criteria	40 hrs					16	24
Sales & Marketing Expert 1	104 hrs	40	0	0	40	24	0
Clarify project purpose and determine project scope	40 hrs	40					
Identify key stakeholders and project team member roles	64 hrs				40	24	
Sales & Marketing Expert 2	104 hrs	40	0	0	40	24	0
Clarify project purpose and determine project scope	40 hrs	40					
Identify key stakeholders and project team member roles	64 hrs				40	24	

Resource usage calendars help project teams evaluate whether resources are assigned without conflicts. As can be seen in Table 5.0, System Analyst 1 (SA1) and 2 (SA2), both, have resource overallocation problems on May 23rd week. SA1 works 64 hours on that week while SA2 works 56 hours. Both work more than 40 hours (8 hours per weekday) assuming that overtime work is not allowed. In the next section, we will discuss how to solve this overallocation by means of resource leveling.

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