Information systems project management

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Executive summary

Website development is very common scenario in modern business world. However in the case, website target a children and it should have visualized the 18 to 20 years of the future. Therefore content and design of this website is considerably more advance. Therefore it will take more time and cost to design this website compare to other normal websites. Basically objective of this study is to develop a project charter for web development project. Therefore part of the project charter such as objectives of the project, project team, roles and responsibilities of the team member, cost analysis of the project, risk of the project have been discussed in this report. Cost analysis and project duration have been discussed based on the project work breakdown structure. Secondary data such as journal articles and industry related books have been referred to conduct for this study. Further end of this study, it is revealed that financial feasibility of the project based on the profitability analysis conducted. This project will be positive NPV generated project. Therefore this project has ability to achieve both its qualitative and quantitative objectives very easily.

Introduction

The goal of this project plan is to successfully develop a website for the Kids at HOPE organization. Kids at Hope is an organization that aims to inspire, empower and transform families and youth organizations such as schools, parks, recreation areas and all their communities, to create an environment in which all children succeed. The organization currently has 500,000 members across the country. This project is creating an interactive, content-rich website that helps students visualize their future through the neuroscience concept of the time traveler. The time traveler guides students in their vision of the future, as well as in the planning and visualization of their desired professions / goals, between the ages of 18 and 21.. The entire project is funded by the Ministry of Higher Education (Gardiner 2005).

Objectives and goals of the project

The benefiters of this project will be children and main objective of this project is to inspire the children to achieve their future goals and make their future better. This website will guide children to their targets and it will visualize their desired professions or goals in future.

Instead of that quantitative objectives of the project need to be defined beginning of the project and those objectives need to be reflected SMART characteristics such as specific, measurable, attainable, realistic and time bound. Objectives of the projects have been identified here,

- Achieve the revenue target of Rs 1M within the first year and increase revenue by 30% in each year.
- The project is to be completed within 12 months.
- Increase new visitors by 20% in every years and maintain revisits at 70%.
- Achieve 75% highly satisfied ratings from users.

Website need to be user friendly site and also there need to be well organized content to achieve those goals. Further graphic designs of the website need to very attractive to attract more children for the website. Further revisit level of the website need to be higher level.

Project team

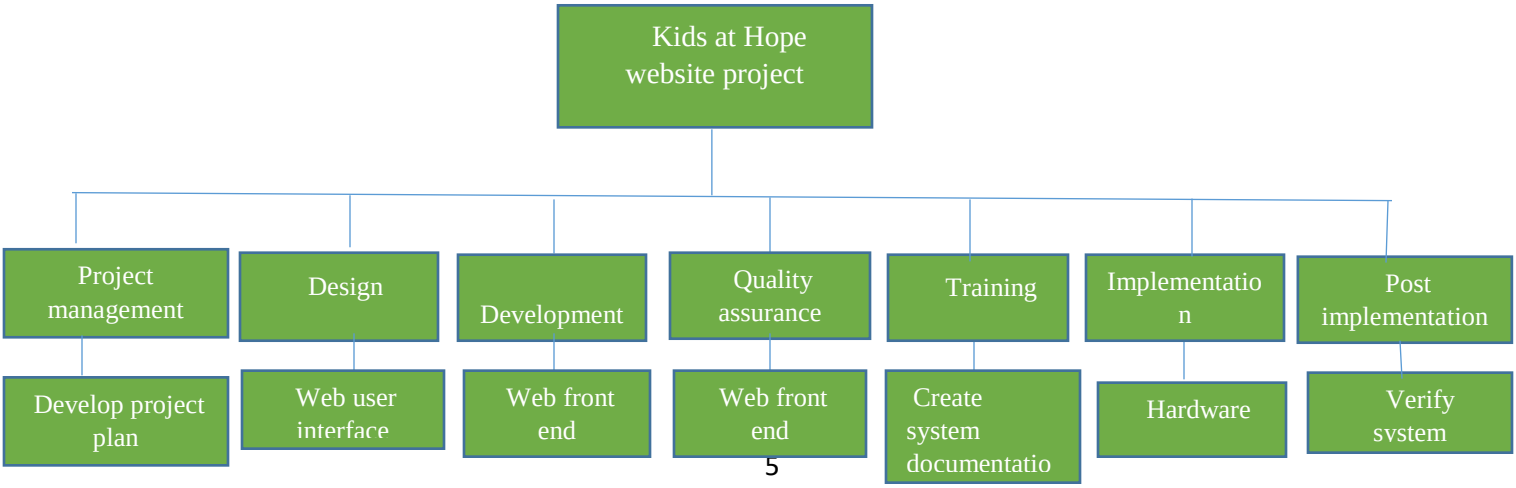
Project team concluded with following team members. This project team is concluded by covering different skill sets of information technology sector.

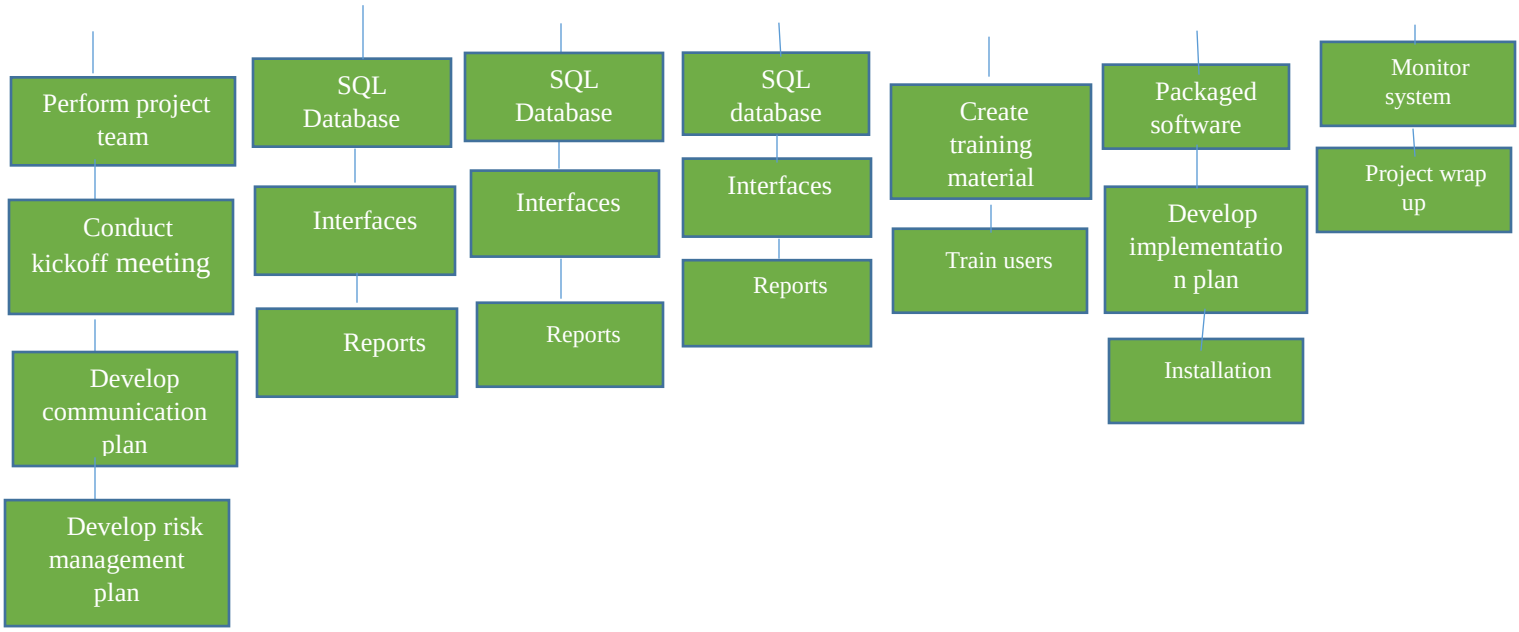
- Member from ministry of higher education – Project sponsor
- Project manager
- Information architect
- Graphic designer
- Usability lead
- Web technology lead
- Site production lead
- HR manager

Work breakdown structure

Decomposing a large project into manageable or understandable areas is a basic approach to project management (Maylor, 2008). WBS is a hierarchical resolution of the entire project into manageable subactivities. Companies can plan their costs, time and resources properly by dividing the project into manageable activities. On the other hand project managers can monitor the project by delegating responsibilities and determining if the task is delayed.

There are many advantages to using the structure of work breakdown structures, such as For example, they can establish logical business arrangements, provide a logical basis for decision making, filter out inefficient activities and ideas, and provide a project evaluation framework, which is useful for the refinement process, etc. (Khohil and Chitkara, 2008)





Planning work sheet of the project

This WBS can be divided further sub activities and based on the activities responsible people and resources need to be allocated.

The success of the project depends entirely on the talent and collaboration of the team members. Therefore, at the beginning of the project the respective roles and responsibilities have to be assigned to the individual members.

Table 01- planning worksheet of website development project

Activity	Scope	Responsible person	Duration	Cost
Project management	Develop project plan	Project manager	2 weeks	Rs 60,000
	Perform project team			
	Develop communication plan			
	Develop risk management plan			

	Perform kickoff meeting			

Design	Web user interface
	• Functional specification
	  • Create user interface mock up
	  • Conduct design review
	  • Deliver final functional specs
	  • Obtain user sign off
	• Technical specification
	  • Develop tech specs
	  • Review tech specs with project team
		Project manager
		Project sponsor
		Information architect
		Graphic designer
		Web technology lead
		Site production lead
			4 weeks	Rs 185,400

	SQL database
	• Technical specification
	  • Develop tech specs
	  • Review tech specs with project team
		Web technology lead
		Usability lead		

	Interfaces
	• Technical specification
	  • Define user need
	  • Define IT needs
	• Design interfaces
		Web technology lead
		Information architect
		Graphic designer		

	Reports • Collect user requirement • Define data elements • Define frequency	Information architect		

	• Define audience • Design reports • Review report design with project team. • Provide final functional specs.	Web technology lead		

Development	• Web front end
	  • Code web pages
	  • Conduct unit test
	  • Review web page design
		Information architect
		
		Web technology lead
		
		Graphic designer
		
		Usability lead
			4 Weeks	Rs 334,500

	• SQL database	Web technology lead		

	• Interfaces
	  • Build interfaces
	  • Conduct Unit test of import/export functionality
		Graphic designer
		
		Usability lead
		Web technology lead		

	• Report
	  - Code reports
	  - Conduct unit test
	  -
		Web technology lead		

Quality assurance	• Web front end	Graphic designer	2 weeks	Rs 474,500

	- Verify design and functionality - Perform integration test - Perform UAT	Usability lead Web technology lead		
	• SQL Database - Verify design element - Verify relationship - Conduct UAT.	Web technology lead Site production lead Usability lead		
	• Interfaces - Verify design and functionality - Perform integrated test. - Perform UAT.	Usability lead Graphic designer		
Training	Create system documentation Create training material Train users	Project Manager, HR manager	3 weeks	Rs 355,000
Implementation	• Hardware - Determine hardware needs - Make hardware selections - Deploy - Perform system test - Verify product readiness • Packaged software	Project manager Information architect Graphic designer Web technology lead S	4 weeks	Rs 645,600

	- Determine software needs - Make software selection - Purchase software - Deploy - Perform system test	ite production lead		
	• Develop implementation plan	Project manager		
	• Installation - Convert hardware to production-ready status - Convert packaged software to production ready status - Install new programs into production environment - Verify code - Initiate limited production run for user acceptance - Turn over system to users	Project manager Project sponsor Information architect Graphic designer Web technology lead Site production lead		
Post implementation	Verify system Monitor system Project wrap up.	Project sponsor Project manager Usability lead	2 weeks	Rs 75,000

During the project launch and definition phase, the project team attempts to identify the reasons why the project was started and to identify available alternatives. During the planning and control phase, the team would participate in the development of models to identify the exact requirements, the process to meet and meet these requirements, and to identify and manage project risks. . During the implementation phase, the project would be put into production in accordance with the plan and during the review phase, project performance and results would be assessed (PMI, 2013).

Above planning work sheet is clearly mentioned the detail activities of the project and role and responsibilities of the project team have been mentioned there. Instead of technical aspects, Project manager has main responsibility to conduct the project smoothly. The main task of the project manager is to ensure that the project is completed within the set time and budgets are set while achieving project goals. The project manager ensures that the project receives the required resources and agrees with the project participants. Other project managers include developing the project plan, assigning responsibilities to each member, updating senior management, developing the methodology used for the project, and so on.

Especially project manager should have leadership skills such as negotiation, conflict management and delegation to successfully complete the project. Project manager need to often negotiation with team members, vendors and other project stakeholders. Negotiation is an important skill in developing project management and avoiding frustration among all parties involved, which could delay or provoke project failure (Gray, 2011). Conflict can occur within any project team, although it can be reduced by good planning, communication and teamwork. Conflicts can occur in any project due to stress, lack of information and communication, personal differences, early stage of the project, etc. The project manager is primarily responsible for managing the conflict. Even some conflicts can be used positively to improve the effectiveness of the project (Barker and Cole, 2012). On the other hand, delegating project responsibilities is an essential project management skill that the project manager should possess. If the project manager delegates certain powers to others to make decisions and take action, the project will cause delays due to lack of decision or lack of action. If you delegate too much authority to others who do not have knowledge, skills, or information, this usually causes problems that cause delays or additional costs to the project. Finding the right balance of delegation is an important project management skill that the project manager must put into practice (Gardiner, 2005).

The project sponsor would work closely with the project manager to oversee the project process and ensure that the team achieves the objectives set. The project proponent would also be responsible for resolving conflicts and potential obstacles related to the project. The project sponsor would also be responsible for the availability of sufficient resources for the team.

Critical Path Analysis is a project planning method that can be used to complete the project in the shortest amount of time.

Figure – Critical path analysis for the project

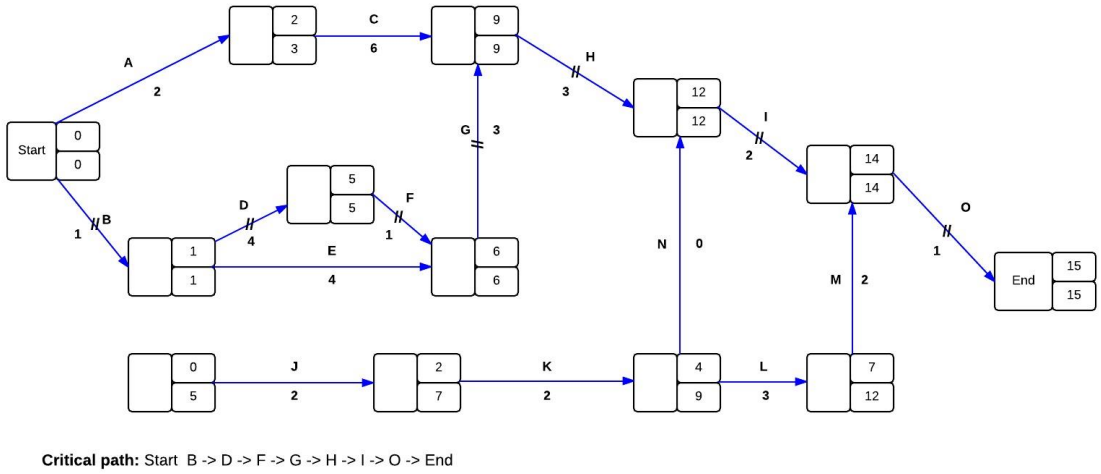
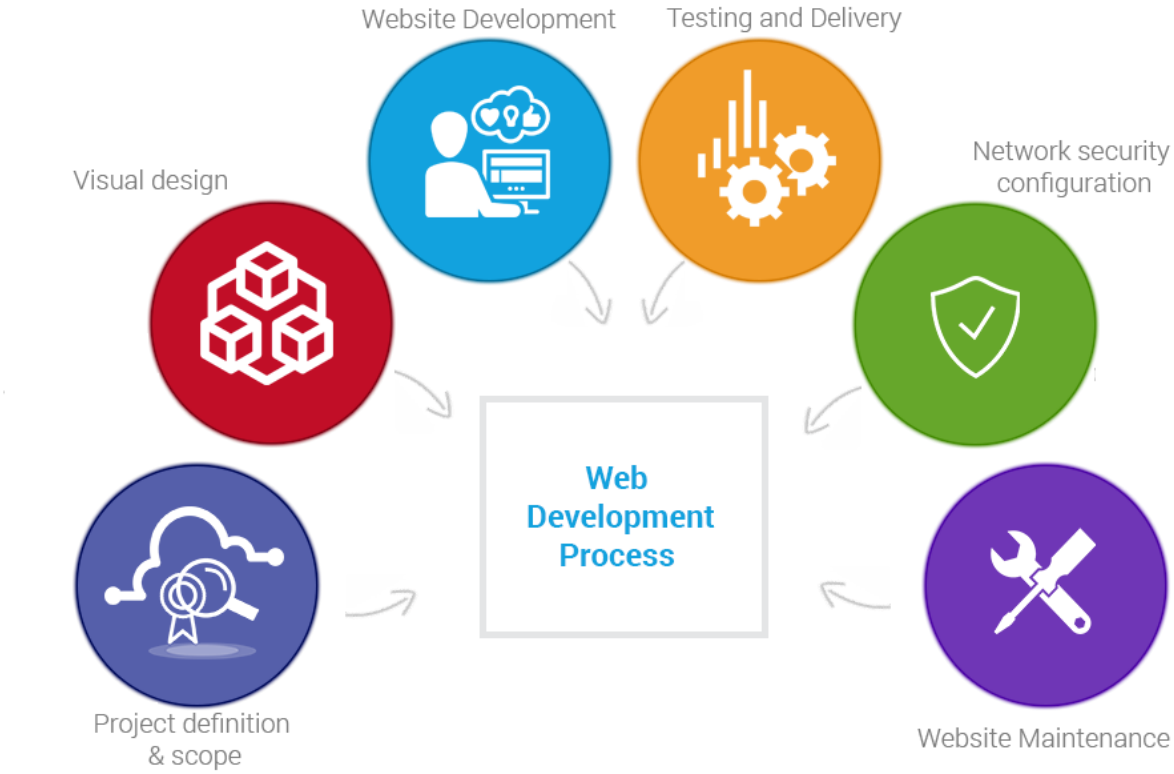


Figure 01 – Web development process



Total project can be finished within 21 weeks and it is a significant improvement compared to initially allocated time. The bottom-up costing approach is used to develop a budget and cost analysis for this project, where the individual tasks of the WBS are estimated and merged at each level of the project hierarchy. Project manager need to develop the budget with and need to get approval the support of project team and need to get approval from Ministry of higher education. Further estimated budget for this project is Rs 2,170,000 according to planning work sheet. Therefore project team can complete the project within the allocated Rs 3 Mn budget. The effectiveness of the funding process and the use of funds is in the hands of the project leader. It is his duty to implement appropriate control systems, to constantly monitor the work process and to correct any errors or misuse of resources identified.

Progress of the project need to be evaluated time to time and project manager is responsible for that. Key performance indicators and critical success factors of the project need to be reviewed time to time. Good communication and coordination with project stakeholders is highly important to success of the project team.

Above duration and budget has been allocated for each activity based on the assumption of Kids at Hope provide required support to the project team in the execution of the project.

Possible risks of the projects

Following risks has been identified as possible risks.

- Limited accessibility to the project sponsor.
- Comparably making decision takes long time due to government related project.
- Fixating on low priority details.
- The project sponsor does not have sufficient authority.
- Too many people are involved in decision-making.
- Virus, bugs and security threats.
- Valuable team members leave the project ream.
- Large change request late in the project.

Profitability analysis

Main revenue line of the website will be membership fees, advertisements and other incomes.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cost for the web site	(2,130,000)					
Revenue		1,000,000	1000000* 1.3 = 1,300,000	1,300,00 * 1.3 = 1,690,000	1,690,000 * 1.3 = 2,197,000	9,520,333
NCF						
COC 10%	1	0.909	0.826	0.751	0.683	0.621
PV	(2,130,000)	909000	1073800	1269190	1500551	5912126

Npv = Rs 8,534,667

Cost of capital of the project has been considered as 10%. According above NPV calculation, it can identified that project is positive NPV generated project. Therefore this project is financially highly feasible.

Conclusion

According to above detail, it can be identified that project will be highly feasible and profitable. Further project can be completed within allocated time and budget. Main risk of the project is slowness of the decision making process since client is government ministry. On the other hand,

general risks of IT projects such as bugs, virus can be raised implementation stage of the project. Therefore project team need to consider about that. End of the project, project team will expect that they can successfully achieve the objective of the project and bring happiness and inspiration to the children of the all over Sri Lanka.

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Appendix I - 6 Phases of Project