Project Plan Document

Website Development for the Business Department of University A

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Project Description

University A is one of the top public universities in the United States. Every department in the University has their specialized website where students can get all the information related to their department as well as access articles, submit documents/ course projects, etc., except the Business Department.

The University officials recently declared that the University will work remotely in the next semester, i.e. Fall 2022 semester, because they have forecasted an infectious disease that will spread widely and potentially stay for a year long. As all the departments have access to their online platforms, the Business Department is, however, lacking this platform. Hence, we propose to launch a new website for the Business department. This website will provide access to all the students and teachers of the Business department, by which they can work remotely. Considering that the University will be working remotely in the next semester, this website will be extremely helpful for the Business Department as they will be able to work efficiently even from home, like the other departments. All the other departments have developed their website in the past 2-3 years with the cost ranging between $1,000-$1,300 as per the department's requirement. This proposal estimates the required budget of $1,200 and a timeline of 3 months and 2 weeks to complete.

Project Objectives

The objectives of this project are given below:
- Transform and advance quality in teaching and learning through online medium
- Easily connect the instructors and students to monitor grades, manage active enrollments and assignment submissions, share course documents, facilitate message correspondence between students & instructors and contain course and departmental syllabus information accessibility
- Provide online access to university resources via remote learning

Success Criteria

The success of this project will be based on the following criteria:
- 100% of the staff and students of the Business Department will be able to access the website and work remotely during the Fall semester or the pandemic.
- As per the demographics of the registered students, the range of traveling time required to commute to the University is approximately 20 minutes to 1 hour. Thus, most of the students will be able to save 20 minutes to 1 hour of travel time and become productive by spending more time on various academic activities.
- Students can upload all the course assignments online, even after the pandemic, which will reduce the manual work of submitting 20+ copies/documents by each student on a normal basis.
- The project will be considered successful if the website is implemented with an estimated budget of $1,200 and within 3 months & 2 weeks so that it is ready before the Fall 2022 semester.

Project Mission

A specialized website for the Business Department of University A will provide an inclusive learning environment as well as access to all the academic resources through modern and robust technology. This website will ensure a flexible way of communication between students and University through a secure network that can be accessed remotely, which, unlike the current procedure, will provide an environment for e-learning and access to the University resources, resulting in elimination of student's travel time and allow them to study home safely during the pandemic.

Project Scope

This project will cover the website functionalities as required by the department and only the Business Department students and staff can log into the website. It will include all the courses and the Business Department related articles and activities. Every individual student from the Business program can access his/her course contents only. The individual will not be able to view the activities performed by other students. This website is solely for the Business Department and hence all courses outside this department will not be included in the website.

Major Deliverables:
- Secure online account for every student and staff.
- Access to courses, custom emails, and online library.
- Display of students' course progress, attendance, and results.
- Information on Business clubs and virtual events.
- User's manual on using and maintaining website.

Project Work Breakdown Structure

Title: Website Development for Business Department of University A

1	Permission
1.1	Create Project Charter
1.2	Held kick-off meeting
1.3	Present Project Charter
1.4	Sign Project Charter

2	Fund collection and planning
2.1	Schedule team planning meeting
2.2	Document the project requirements
2.3	Prepare Project schedule
2.4	Determine cost of entire project
2.5	Fund collection of the entire department
2.6	Milestone meeting 1

3   Design

3.1   Discuss and plan the concept graphic design

3.2   Draft version of graphic design

3.3   Review graphic design

3.4   Make final version of graphic design

3.5   Approve graphic design

3.6   Milestone meeting 2

4   Purchase website equipment

4.1   Purchase Domain

4.2   Purchase Hosting

4.3   Purchase Local Server

4.4   Purchase networking equipment

5   Website Development

5.1   Create code design document

5.2   **Develop website frontend**

5.2.1   Add all the information of Business Department

5.2.2   Add student's and teacher's profiles

5.2.3   Add courses, custom mails, and online library

5.2.4   Add all the learning resources

5.3   Setup the server

5.4   Implement the database connecting to frontend

6   Testing

6.1   Test the website functionality

6.2   Perform security test

6.3   Find and fix bugs

6.4   Perform speed test

6.5   Test the responsiveness of the website

6.6   Report the testing results

7   Website deployment and Payment

7.1   Integrate the website in the University portal

7.2   Prepare Documentation

7.3   Make Payment

8   Training and closing

8.1   Prepare reports for training

8.2   Conduct training sessions

8.3   Create lessons learnt

8.4   Upload the training materials for new users

8.5   Store the backup files

8.6   Close the meeting

SEE THE EXCEL FILE "WBS.xlsm" for the WBS CHART.
Subsheet 1 is named as "WBS" that contains the WBS Chart

Project Schedule

FOR PROJECT SCHEDULE, OPEN THE EXCEL FILE **"network diagram.xlsx"**
- Subsheet 1 is named as Network Diagram which contains the network diagram of the summary activities of the project. Also, the critical path is estimated in the same file. The critical path is indicated in bold arrows.
- Subsheet 2 is named as Detailed Network Diagram which shows the detailed network diagram of every work package from the project. The critical path is indicated in bold arrows.

The Gantt chart is made in MS Project and can be accessed through the file named –
"Web Development Project gantt chart.mpp"

Milestones

The Website Development for Business department has begun and is expected to be completed by July 28, 2022. As of now, the funds collection and project schedule & cost planning has been done. Listed below are the key milestones for the project and their target dates for completion.

Deliverables	Target Dates	Responsibility
Signed the Project Charter	03/09/2022	Harry
Prepared project schedule	03/17/2022	Ron
Collected funds for the Business Department	03/24/2022	John, Ron
Prepared and approved the graphic design	04/27/2022	Luna, Tina
Purchased website networking equipment	04/21/2022	Harry
Added authorized profiles of users to the website	05/16/2022	Tina, Draco
Completed website development by including all resources	06/28/2022	Luna, Tina, Draco
Website Security and functionality test performed	07/08/2022	Draco
Testing results reported and approved	07/11/2022	Draco, John
Deployed the website	07/13/2022	Harry, Luna
Conducted and uploaded training sessions, user's manual for the new users	07/26/2022	John, Luna, Draco
Closeout	07/28/2022	John

Resources

A resource is a necessary asset whose main role is to help carry out a certain task or project. A resource can be a person, a team, a tool, finances, and time.

Following hardware, software and networking resources will be required for the Website Development:

Resources	Provided by
Computers	University Laboratory
Internet	University
Graphics Editing software	University Software license
Web server	University
Database	University
Router	Third-party
Cables	Third-party
Hosting and domain	Third-party
Backup Hard drive	University
Training materials	University

In addition to the Hardware and Software resources, Human resources also play an important part and are required in this project. The Human resources and their description are shown in the following table:

HUMAN RESOURCES

Resources	Description	Responsibility
Harry	Project Manager	Responsible for all the activities of the project
Ron	Project Analyst	Responsible for determining the department's requirements. Identify areas for improvements and how to bridge the requirements with the project.
Luna	Senior Web Programmer	In-charge of technical aspects of the project and provides the project manager with all the needed updates of the website's development. Also discusses frontend design elements with junior the programmer.
Tina	Junior Web Programmer	Responsible for completing all the programming tasks given by the Senior web programmer. Plays supporting role in technical development
Draco	Database specialist	Handles the integrity, efficiency, performance and security of the database. Manages and tracks the database engine
John	Communications Specialist / Project coordinator	Responsible for communicating with project team members, manager, stakeholders. Organizes meetings and other discussions

Description for Responsibility for Implementation

(R: Responsible   S: Supports)

TASK	HARRY	JOHN	RON	LUNA	TINA	DRACO
PERMISSION	S	R	S			
FUND COLLECTION AND PLANNING	R	R	S	S	S	S
GRAPHIC DESIGN	S			R	R	S
PURCHASE	R		S			
WEB DEVELOPMENT	S	S	S	R	R	R
TESTING	S	S	S	S	S	R
WEBSITE DEPLOYMENT AND PAYMENT	R	R	S	R	S	S
TRAINING & CLOSEOUT	R	R	S	R	S	S

Project Budgeting and Control

The university needs to ensure that the budget estimate should be able to cover all the expenses. The total cost of the project would be around $1,200.

Cost estimate: It is assumed that payment is sanctioned at the beginning of each activity. Even if we don't pay at the beginning, the amount will be shown as expended.

Breakdown of cost:

COST ITEM	AMOUNT ($)	AMOUNT ($)
Direct Cost	$980	
Direct Overhead	$93	
Total Direct Cost		**$1073**
General and administrative expense		$127
Total Cost		**$1200**

The details of the cost is included in the Budget Report below:

BUDGET REPORT

	TASK	Estimated Cost
1	Domain Registration	$70
2	Website Hosting	$60
3	Graphics design (interface)	$80
4	Coding and debugging	$150
5	Networking equipment (Server, router, cable network)	$350
6	Functionality testing	$30
7	Security testing	$60
8	Resources used for meetings (internet, electricity, etc)	$70
9	Providing training	$180
10	Creating documentation and user's manual for new users	$150
	TOTAL	**$1,200**

Project Monitoring and Control

In project monitoring process, there are particularly three sections of concern:

1. Comparing the actual project performance against the project management plan:
To compare the completed project product with the expected result before the project started and see if it meets the expected project requirements.
2. Assessing performance to determine whether any corrective or preventive actions were indicated, and then recommending those actions as necessary:
The frontend team would decide on the framework, graphics, and design of the website. Further, they would communicate their plan to the database developer(s) for managing the backend of the website, and ultimately plan out the entire workflow of the website development. Assessing the performance of the technical team is important so that in case of any corrections or recommendations, the team is informed, and they can take the feedback and work on the website.
3. Providing forecasts to update current cost and current schedule information:
The Project budget had clear limits. So, they have a cost estimate for each performed and improved phase, and under the rigorous monitoring of cost control, team could reasonably complete each task without wasting money.

Check file **"Web Development Project budget.mpp"**. The baseline cost column shows the cost for each task. For meetings- electricity, internet, etc. resources are used. Hence, $17.50 is used for every meeting.

Communications and Project Status Reporting

For Communications and Project status reporting, following two approaches are followed:

1. Meetings – Conducting weekly and monthly meetings is a good way to monitor the job and status of the project. During the small meeting every team member can make a report about what they had done until that day and decided what to do the next, and how many hours they would take to finish the work. The big meeting can be helpful for the team to monitor whether the project was completed by the time table and make a future vision about the next phase.

2. Emails – It is important that meetings should have an agenda. If any part of the project monitoring can be communicated via email then the team can chose to communicate through email instead of organizing meetings which can waste more time. Sending reports via email is the best way to get the updates regarding the progress of the project.

Communication Matrix:

Task	When	Method of Communication	Provider
Milestone Report	Monthly	Meeting	Project Manager
Project status report and agendas	Weekly	Email	Project Manager
Team Status report	Biweekly	Meeting	Team Members
Issues Report	Weekly	Meeting	Project Manager
Escalation Report	When needed	Meeting	Project Manager and Project coordinator
Accepted change request	Anytime	Meeting	Project Manager and Project coordinator

An important aspect about the communication management is to manage and control the communication. One thing crucial is the work performance report. A work performance report is a collection of project performance and status information that can be used to facilitate discussion and communication. To optimize this process, it is important to provide timely, comprehensive, accurate and available reports.

To control the communication, conducting meeting is a useful tool. Controlling the communication process requires discussion and dialogue with the project team to determine the best way to update and communicate project performance and respond to stakeholder requests for information. These discussions and conversations are usually conducted through meetings, which can be either face-to-face or online, or at different locations, such as at the project site or at the customer's site.

Project Risks

There is always risk associated with any project. Risk Management Plan helps stakeholders become aware of threats and uncertainties. It also suggests that the project management team is aware of the risks, and it is possible to take actions to prevent them.

The following table shows the risks associated with this project, severity of each risk's potential impact, response that should be given to each risk, the contingency plan, and trigger.

Risk Event	Likelihood (out of 10)	Impact (out of 10)	Response	Contingency Plan	Trigger
Miscommunication	5	5	Reduce	Arrange Meeting	Compromised integrity
Lack of stakeholders' participation	2	6	Reduce	Inform pros and cons	New requirements
Request for big change in later phase	4	9	Scope clarification	Proper signing of contract	Change in requirements
Software bugs	5	4	Eliminate	Proper testing	Unable to perform specified functions
Over emphasis on low priority items	3	5	Shift focus	Identify and track low and high priority items	Less time for major items
Sickness or unexpected leave	4	8	Use backup	Have alternative personnel and extra buffer time	Delay in completion

Assumptions and Dependencies

AS-1: Purchasing network equipment and setting up of software integration to retrieve data from server will be done by a third-party.

AS-2: The timeline for project is 105 days. For buffer time, the deadline is set to be in 120 days. So, we have a buffer time of 15 days. In case of any delays, we have enough buffer time to overcome any unexpected events.

DE-1: The project would have a dependency on the third-party and the software integration's projected completion date since the integration is developed by the third-party.

DE-2: The training materials are approved only after the website is deployed successfully, and then the documentation is made. Hence, it would have dependency on the website deployment and documentation completion phase.

Constraints

Dimension	Constraint (state limits)	Driver (state objective)	Degree of Freedom (state allowable range)
Features	Finding the appropriate domain name for website		70-80% of high priority features must be included in release 5.4
Quality			95% of user acceptance tests must pass for release 6.6, 95-100% for release 7.1
Cost		Direct cost: $1073, General and administrative cost: $127	
Schedule		Release 7.2 to be available by 7/13, Release 8.4 by 7/26	Buffer period of 15 days is available
Staff	Maximum team size is 3 developers + 1 tester + 1 Analyst + 1 management personnel		Alternative personnel can be added in case of unexpected leave or sickness

Approvals

Approval Decision:

☐ Project proposal is approved
☐ Approved, project schedule
☐ Approved, development of detailed project plan is authorized
☐ Approved, website graphic design
☐ Approved, project execution is authorized
☐ Approved, website testing
☐ Approved, website deployment
☐ Approved, website documentation

Role or Title	Description	Name and Signature	Date
Harry – Project Manager	Approved project charter	Harry	03/09/2022
	Approved project plan		03/17/2022
	Approved documentation		07/26/2022
Luna – Senior web programmer	Approved website design	Luna	04/27/2022
	Approved website deployment		07/13/2022
	Approved documentation		07/26/2022
Draco – Database specialist	Approved website testing	Draco	07/11/2022
	Approved website deployment		07/13/2022
	Approved documentation		07/26/2022