Software Project Management Plan (SPMP)
Outline for Daily Roar

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- **Version History**

Version	Revised By	Revised Date	Changes
1.0	Pankati Patel	2/2/23	Baseline
1.1	Pankati Patel	4/423	Sprint dates

- **Introduction**

Purpose of Plan

The Daily Roar Project Management Plan will provide a detailed view of the project with the objectives and goals being highlighted within. The Project Management Plan will serve as an agreement between team members and the project's supervisors. This plan will give a better understanding of the communication channels between the project manager, team members and project supervisor. Included within this is a detailed explanation of the business objective, constraints, deliverables, budget, projected timeline, methodology, roles and responsibilities.

Background Information

The Kean University Computer Science (CS) and Information Technology (IT) department works efficiently to notify students of any opportunities. These opportunities include any job posting, internship postings, or any informative events and workshops that allow the students to develop and grow in their career. These opportunities are sometimes targeted for a certain group of students based on their major (CS,IT), grade level (freshman, sophomore, junior, senior), or their enrollment type (undergraduate, graduate). The main platform the department uses to communicate these opportunities with the students is email. When these emails are being sent out they are labeled with the name of the sender. An observation the department made is that when the emails are being sent out by the sender's name they are not likely to be viewed by the students, they will only view the email in the case if the email is being forwarded by their professor. Emails being forwarded by professors raise a greater importance within the student body. Another concern the department highlights is they need a way to view statistics on the emails being sent out. This includes the viewing rate, and the click rate on the hyperlinks of the

Project Approach

This project will follow the Agile Development Methodology with two sprints to develop the web application. This web application will allow the department to email students within different categories (major, class level, degree program). The system will also give the department statistics about the emails they are sending to the students. The percentage of views on each email, and the percentage of interaction (clicking) on the email. These statistics in return will give the department insight into which types of emails intrigue students, and which emails topics gain more attraction

Reference Materials

The Daily Roar system will reference how Handshake has set up their system. Handshake is an online platform that notifies students of any job and internship opportunities and allows students to connect with recruiters. Handshake also allows the department to send emails to all of the students enrolled in the program with specific opportunities. The department is then able to see the interaction rate and the email viewing rate of the emails that are sent out. Something that this system lacks is a way to send emails to targeted groups of students.

- **Goals and Objectives**

Daily Roar will achieve the following goals:

- The categories in which the students will be broken into are
    - Major (CS,IT)
    - Class level (freshman, sophomore, junior, senior)
    - Degree Program (undergraduate, graduate)
- The department will be able to upload a CSV file which will populate the database
- The system will be able to send emails based on specified categories
- The system will be able to detect if the email has been viewed
- The system will be able to detect if the students are interactive with the email based on link click-through
- The system will provide statistics on the email viewing rate and the click-through rate

The stakeholder can measure the completion of the project if test cases for all user stories are successful between 90 - 99 percent of the time.

Daily Roar will achieve the following objectives

- Increase the viewing rate of emails by 66% and increase job posting link click-through rate by 100%.
- The current statistics: The current viewing rate is between 20-30 percent and interactive rate is less than 5 percent.

● Scope

Scope Definition

This system will be fully tested and ready for the department to use by April 19th. The department will be able to send emails to students based on their category. The department will also be able to see the statistics on the viewing rate and the interactive rate of the emails. From these results the department will be able to predict what type of emails are intriguing the attention of the students.

Items Beyond Scope

The following will be excluded from this development scope:

- Add two more categories to classify the students (gender, race)
- A personalized percentage for the students to see how engaged they are with the emails being broadcasted.
- Point system to track the

Projected Budget

There is no projected budget for this project. The system will be created using external free-to-use API's and student computers. The External API's include Google Analytics in order to keep track of the interactions of the emails and the students that decide to not only open the email but keep track of who clicks on the provided links on the email. A database instance has also been created to hold the information of the students at no cost. The information of the students will also be provided by staff from the university.

Risk Assessment

Important risk assessments to note are:

- Students information getting leaked (security issue) 1
- Third party APIs have vulnerabilities 4
- Unreliable network 5
- Difficulty in communicating with stakeholder 2
- Stakeholders changing requirements 3

Risk assessments will be monitored and updated throughout the project.

Initial Project Risk Assessment

Priority is being measured between one to five. One denoting lowest priority and five denoting highest priority. Risk level is being determined by low, medium and high levels of severity. The likelihood of an event occurring is being ranked by unlikely, somewhat likely, and likely.

Risk	Priority	Risk Level L/M/H	Likelihood of Event	Mitigation Strategy
Student Information Getting Leaked	**1**	High	Somewhat likely	Securing database privileges and preventing unauthorized interfaces
Stakeholders changing requirements	**2**	High	Likely	Come to a final agreement for the project's scope by a given date (1 week after sprint one).
Difficulties in communicating with stakeholder	**3**	High	Unlikely	Maintain a clear line of communication through email and scheduled emails
Third Party API Vulnerability	**4**	Medium	Somewhat likely	Create in-house APIs
Unreliable Network	**5**	Medium	Unlikely	Use libraries stored in the host server and limit usage of CDNs

- ## Assumptions

Project Assumptions

Assumptions being made for this project are:

- Students have access to their Kean emails
- Student data is being provided to us rather than gathering it ourselves
- Security will be an important factor due to the sensitivity of the data being provided
- Only key members of the department will be using the web app to send emails (Nohelia Diplan, Patricia Morreale, Nancy Amador) not accessible for every faculty member.
- Graduate Assistants will be able to access the web application to performs given functions: upload csv, manually insert students not already in the csv

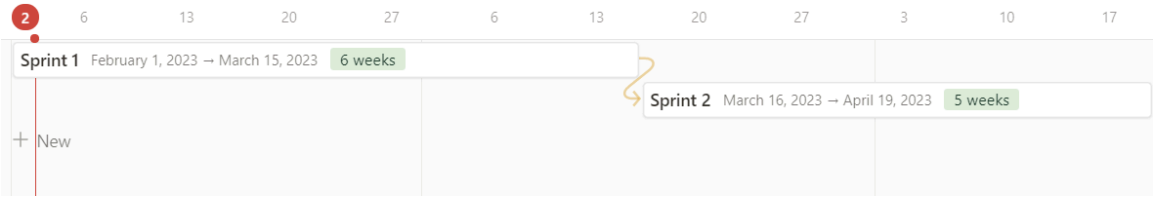
Constraints

Project Constraints

- Wifi reliability
- Third party database reliability
- Time constraint of three months
- Lack of meeting attendance from team members
- Lack of performance from team members
- Scope creep (scope of project grows past feasibility)
- Failure to find a suitable API for email tracking

Project Management Approach

Project Timeline



Sprint	Tasks	Date

Sprint 1	• Software Design Document (SDD)
	• Implement the relational database tables
	• Implement functionality in the front end:
	  ○ CSV upload
	  ○ Rich text editor
	  ○ Implement APIs
	  ○ Manually add students to database
	  ○ Email testing with mock data
		Feb 1 - Mar 22

Sprint 2	• Integrate and connect front-end with back-end database. • Email testing with real data • Email testing by categories • Completed UI • Implement data visualization for email statistics • Implement student dashboard	Mar 16th - Apr 19th

Project Roles and Responsibilities

Stakeholders: Nohelia Diplan, Nancy Amador, Patrica Morreale, Jing-Chiou Liou

Role(s)	Responsibilities	Participant(s)
Project Manager	▪ In charge of managing the project itself and the members involved in the team working on the project. ▪ In direct communication with Supervisor (Professor) about project progress ▪ Skilled in problem solving ▪ Handles planning, scheduling, and budgeting ▪ Planning out the 'blueprints' for the project. Defining the scope, setting deadlines, laying out communication strategies ▪ Ensure the project stays on schedule ▪ Track milestones, deliverables, and changing requests ▪ Communication with the stakeholder	Pankati Patel / Uko Ebreso
Back-End Developer	▪ Have a good understanding of the user requirements ▪ troubleshoot and debug applications ▪ collaborate with front end designer to integrate UX for server side logic ▪ Software Design Document (SDD) ▪ Adaptable to changing requirements ▪ Write clean code	Alex Fisher & Uko Ebreso / Pankati Patel (secondary)
Front-End Developer	▪ Software Design Document (SDD) ▪ Adaptable to changing requirements ▪ troubleshoot and debug applications ▪ Write clean code → define better ▪ collaborate with back end developer to integrate back end functions with front end interface and functions ▪ Create quality prototypes	Alex Fisher / Kevin Parra(secondary)
System Analyst	▪ Take down the documentation of the Project as it moves along through each of its sprints ▪ conducts research on possible solutions for occurring problems and makes recommendations to the project manager. ▪ suggests designs, tests, and implementations for the system. ▪ Can train users on how to use the system by creating a manual on how to efficiently use the system.	Kevin Parra / Nicholas Moffa (secondary)
Tester	▪ In charge of running test cases for the project to make sure that everything is running smoothly while the project is and after implementation ▪ Make sure there's isn't any bugs within the system ▪ Provide knowledge and recommendations	Nicholas Moffa / Alex Fisher (secondary)

Issue Management

During the software development life cycle issues are to arise with the changing user requirements. To address these changing requirements the following steps will be set into place

Step 1: The project manager will be notified of the changes that affect the project scope, objective, timeline, or stakeholder requirements. These will be properly documented in the project management plan. Changes in the code will be implemented in GitHub utilizing version control

Step 2: The project manager, in collaboration with the system analyst, will review the changing requirements and determine the level of impact the change will have.

Step 3: If the changes are regarding user requirements, the user stories will be adjusted and the development team will be notified to review the change in scope of their work.

Step 4: If the changes are regarding scope and objective, the product supervisor will be notified to receive approval.

In the case of an absent team member or in need of help there are assigned second roles to each member that way everybody can be more involved with the project and help each other out. This will ensure the project is still on schedule.

Communication Plan

- Methodology
    - Amongst the project team members, communication will be through the team Discord server and through GitHub conversation threads when outside of meeting times, those of which are described below in *communication outreach*.
    - Between project team members and the stakeholders of the application, communication will be had as needed during the scheduled in-person meeting times.

- Audience
  The communication plan is formed and geared towards the following audience:
    - Project Stakeholder
        - Department of Computer Science and Technology
    - Project Manager
    - Project Team Members

Communication Outreach:

The following will describe the communication plan of the team and its members.

- Weekly Status Reports

The Project Manager will be in charge of keeping direct communication with the supervisor, which will include providing him with weekly status reports. The status reports will include a brief summary of what was done and worked on during that specific week. It will also include details that include what possible issues, changes, or improvements to the project. If there are issues involved the status report will provide a plan on how to resolve the issue at hand.

- Weekly Project Team Status Meeting

The status meetings will be where the team will join together to work and discuss the project. The decided days and times that were agreed by all the team members will be every Tuesday and Thursday from 3:30 PM - 5:00 PM. Another meeting time that is agreed on is Wednesday After our weekly presentation to the supervisor. The time will be from 4:45 PM- 6:15 PM. The Documentation of the project will also be worked on, completed, and uploaded to our shared google drive where each team member can access and edit the documents for the project.

● Attachments/Appendices

Appendices/Attachments may be included in a hardcopy form

- Business Case
- Project Charter
- Project Description
- Statement of Work

● Approvals

Sign-off Sheet

I have read the above Project Plan and will abide by its terms and conditions and pledge my full commitment and support for the Project Plan.

Project Manager: Pankati Patel

Signature Date