

PMTool

Prepared by:

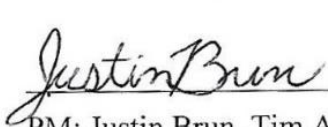
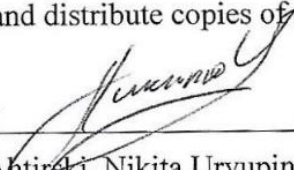
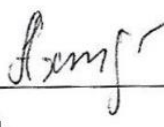
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TABLE OF CONTENTS

Abstract	1
1. Introduction	2
1.1. Project Description.....	2
1.2. Problem	3
1.3. Project Solution/Goal.....	3
1.4. Constraints	3
1.5. Overview	3
2. Project Details	4
2.1. Project Concept.....	4
2.2. Design Objectives	4
2.3. User Profile	6
2.4. Use Case Diagram.....	9
2.5. Technical Elements	10
2.6. Design Requirements	10
2.7. Methodology/Testing	11
2.8. Project Deliverables	12
2.9. Project Timeline/Gantt Charts	13
2.10. Proposed Budget	17
2.11. Problems Encountered	17
2.12. Future Recommendations	18
3. Conclusion	19
4. References	20
4.1. Website Sources.....	20
4.2. Technology Sources.....	20
5. Appendix A	21
5.1. Testing Plan	21
Testing Overview:	21
Scope:	21
Objective:.....	21
Testing Procedures:	21
Functional Requirements	21

1.1.	User Login Functionality.....	21
1.2.	Team Management Screen Functionality.....	22
1.3.	Project Manager Functionality.....	23
5.2.	Testing Report.....	25
5.3.	PMTool Screenshots.....	31
5.4.	Tech Expo Poster.....	38

TABLE OF FIGURES

Figure 1 – User Profile.....	8
Figure 2 – Use Case Diagram.....	9
Figure 3 - Project Milestones /Deliverables Table for Fall Semester 2016.....	13
Figure 4 - Project Milestones /Deliverables Table for Spring Semester 2017.....	13
Figure 5 - PMTool Gantt chart: Fall Semester 2016.....	15
Figure 6 - PMTool Gantt chart: Spring Semester 2017.....	16
Figure 7 - Proposed Budget Table.....	17
Figure 8 – Testing Report.....	30
Figure 9 – PMTool Home Screen.....	31
Figure 10 – Manage Account Screen.....	31
Figure 11 – Invite Users to Team Screen.....	32
Figure 12 – Team Management Screen.....	32
Figure 13 – Project Screen.....	33
Figure 14 – Project Details Screen, Gantt chart Feature, To-Do List Feature, and Team Chat Feature.....	34
Figure 15 – Project Settings Screen.....	35
Figure 16 – Login Screen.....	35
Figure 17 – Register Screen.....	36
Figure 18 – Project Creation Screen.....	36
Figure 19 – File Upload/Download Manager.....	37
Figure 20 – 2017 Tech Expo Poster.....	38

Abstract

Project Management Tools are used daily to help users manage projects from start to finish. The Project Management Tools that are in use today; however, are expensive and restrict users to only a few features. PMTool provides students and businesses with a free alternative to commonly used Project Management Tools. Not only is PMTool a free alternative, it provides educational information to those who are still learning the Project Management fundamentals. PMTool allows users to join teams, create projects from its user friendly portal, and manage those projects throughout the development life cycle. In addition, PMTool provides its users with project reporting tools, a chat room, a place to store important documents, as well several other features. For any student or business looking for a free Project Management Tool with all of the best features, the PMTool is the best option.

1. Introduction

Project Management Tools are used by business to help plan and manage projects from the beginning stages of a project to the completion of the project. The type of application used depends on the size of the business and what the business requires to manage their projects. The most common Project Management Tool features include: planning, scheduling, budgeting, reporting, communication, and resource management. All of these features are important to the development life cycle. The development life cycle is a term used in information systems to describe a process for planning, creating, testing, and deploying information systems. This can be software related, hardware related, or both.

1.1. Project Description

Project Management Tools currently cost users from \$8.00 to \$80.00 per month to use their application (1). Our Project Management Tool, called PMTool, will be free of charge to its users. Users that use our product will have several of the same features without the monthly fees. PMTool will allow users to have more freedom and flexibility while managing active projects. For example: Clients can submit project requests in a user friendly request portal to have reviewed by the business. The Business can review the project requests, convert those requests into projects, and assign employees to those projects. A chat room and a file sharing center will be implemented to allow employees to work on projects efficiently. Management type users will have access to reports and team management tools to allow projects to move smoothly through the development life cycle.

1.2. Problem

There are very few Project Management Tools that are respected in the project management community and fewer that are free of charge to its users. In addition existing Project Management Tools have limited features and provide no guidance on how to use those features. The lack of options forces users into expensive contracts that contain endless fees.

1.3. Project Solution/Goal

The goal is to deliver a web application tool that will allow users to manage projects without paying excessive monthly fees. Users will be able to create projects, assign projects and tasks, and view active projects and reports all in one easy to use application. Including these features into a free application will allow users to learn more about project management and how to create/manage projects.

1.4. Constraints

The PMTool will be free of charge to users; however, to use PMTool the application is dependent on a server/database. If a business decides to use the PMTool a server/database must be installed and maintained by the business using the application.

1.5. Overview

The remainder of this report will outline in detail how this project will be completed. The report will include the following sections: project concept, design objectives,

methodology, budget, timeline/deliverables, problems encountered, and future recommendations.

2. Project Details

2.1. Project Concept

Our work experience and knowledge in Information Technology/Software Development lead us to our overall concept to create a Project Management Tool. After doing further research to determine how our Project Management Tool would differ from others, we determined that the biggest concern was the cost. This led us to the idea to create a free Project Management Tool, with several good features, that could be used by small businesses or students.

2.2. Design Objectives

The PMTool application will be accessible on all computers with access to a network and server/database. Access to the PMTool application will depend on the user and the permissions granted to that user. Each screen will be developed around the needs of each user type. The three user types include: Management/Team Lead Users, Employee Type Users, and Admin Users. Each user has a unique role/part in the project management process and each user is important for the success of the application.

- Management Users/Team Leads will have access to all project related screens.

This does not include Admin type screens.

PMTool

Team: Justin Brun, Tim Ahtirski, Nikita Uryupin

- Employee Type Users who are under the Team Lead will have less access than the Management Users and Team Lead users.
- Admin Users manage the server/database and will have the ability to edit/delete users.

2.3. User Profile

[Figure 1](#) below depicts the User Profiles for the PMTool application.

User Profile Form
<p>Application:</p> <p>Project Management Tool: PMTool</p>
<p>Potential Users:</p> <ul style="list-style-type: none">• System Administrative Users• Business Owners• Client Users• Students• Software Developers• IT Managers• Project Managers
<p>Software and Interface Experience:</p> <p>The PMTool application is aimed towards IT businesses and students. Users should have the basic technical knowledge to download and install the PMTool application.</p> <p>The system administrator should have basic database and server knowledge. PMTool will be a free application but a server and database is needed for hosting.</p>
<p>Experience with Similar Applications:</p>

Business owners or students using PMTool should understand the project management process. PMTool is designed to function similar to current project management tools but free of charge to its users.

System Administrators should have experience in similar project management tools and server/database setup. There are currently several on the market that charge users monthly for their services.

The following project management tools can be used for a monthly charge:

- Smartsheet
- Mavenlink
- Wrike
- Asana
- LeanKit

Task Experience:

- IT Management and Project Managers will be able to create projects and assign team members to work on those projects.
- Team Leads will be able to create tasks for projects and assign those tasks to users.
- All PMTool users will be able to view project details, communicate with other employees via a chat room, and send files using a file management center.
- Systems Administrators will be able to create and delete users, update existing

users, and set up new teams.
Frequency of Use: PMTool will be used by businesses and students on a daily bases to manage projects from the request stage throughout the development life cycle. PMTool will be able to handle heavy use by businesses and students 24/7 365 days a year.
Key Interface Design Requirements that the Profile Suggests: <ul style="list-style-type: none">• Server Hosting and Database management is a requirement for any business who decides to use PMTool. Businesses must host and maintain the PMTool on their own server.• The interface will be simple and easy to use for all PMTool users.

Figure 1 – User Profile

2.4. Use Case Diagram

Figure 2 below depicts the User Case Diagram for the PMTool application.

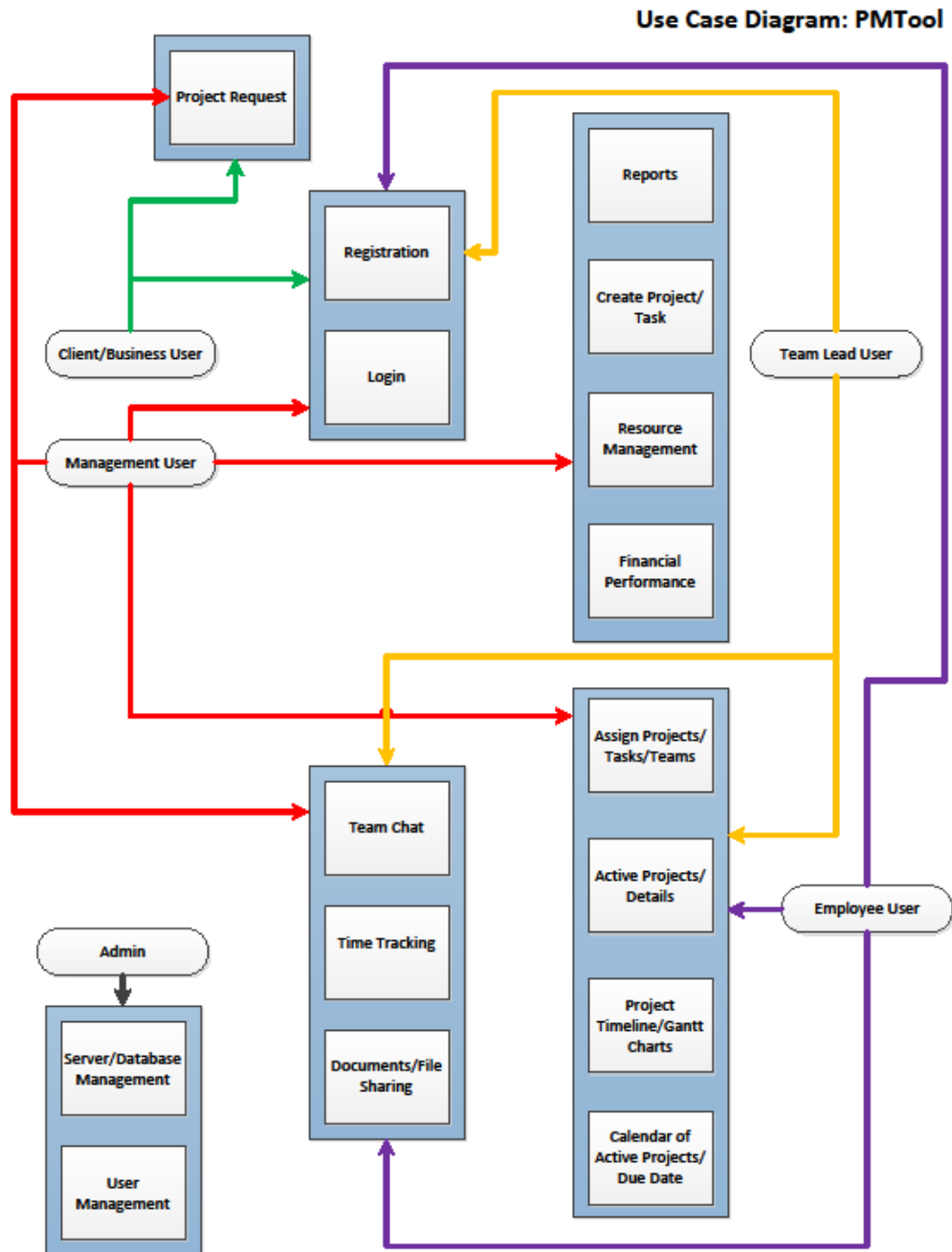


Figure 2 – Use Case Diagram

2.5. Technical Elements

The development team will be developing the PMTool using Microsoft Visual Studio 2015. This software can be obtained for free to students who are enrolled in CECH courses. The front end development for the PMTool will be created using ASP.Net MVC, C#, HTML 5, CSS, Bootstrap, J Query and JavaScript. Microsoft Azure services were used for hosting the application server and the SQL database for our application. Microsoft Azure is free to an extent but does charge for additional features. The bootstrap theme seen throughout the PMTool application is called Velonic Admin Dashboard & Frontend by wrapbootstrap.com (4). A single app license was purchased to use the theme for the PMTool application. The Gantt chart feature found on the Project Details screen was implemented using an open source Gantt chart created by DHTHLX (3).

2.6. Design Requirements

The Scope for this project is to create a free project management tool with at least the following features:

- User Login Portal (Fall Semester 2016)
- Project Screen (Fall Semester 2016)
- Gantt Chart Feature (Fall Semester 2016)
- Tasks Screen (Spring Semester 2017)
- Employee Chat Room (Spring Semester 2017)

- File Management Center (Spring Semester 2017)
- Team Management Screen (Spring Semester 2017)

Final Project Requirements were decided over the course of development.

2.7. Methodology/Testing

For the development of this project we decided to do an Agile Methodology approach. The Agile Methodology was the best approach to complete our tasks for the timeframe given. A waterfall approach would not work based on the timeframe given, considering we would not have time to start from scratch if something were to go wrong. The agile approach allows us to make changes and decisions when necessary.

The first part of the Agile Methodology was the Requirements Gathering and Design phase. In Requirements Gathering phase our team researched Project Management Tools, developed our project plan, and created our requirements. A scrum board was created to demonstrate the Sprints needed to complete each requirement. Each sprint was based on a 2-3 week time period. At the end of each sprint testing would take place and the development would be deployed if testing was a success. Each deliverable described in section 3.8 below will be developed and tested after completion. Any features that are not completed in the first semester will remain on the Scrum board and will be addressed in the second semester. Overall, the Agile

Methodology approach gives our team a better understanding of what has successfully been completed and what needs to be completed.

The Scrum board can be accessed here: <http://scrumy.com/SRPROJMGJ>

2.8. Project Deliverables

[Figure 3](#) below is a list of Deliverables for Fall Semester 2016. [Figure 4](#) below is a list of Deliverables for Spring Semester 2017. Please see the Gantt chart for more details.

Fall Semester 2016	
Project Deliverables	Start Date - Completion Date
Executing	9/19/2016-10/31/2016
Azure Server Setup	
Database/Server Setup	
Database and Setup Access	
Create Tables	
Home Screen (Figure 9)	
Master Template	
Login Screen (Figure 16)	
Project Creation Screen (Figure 18)	
Project Details Screen (Figure 14)	
Registration Screen (Figure 17)	
Manage Account Screen (Figure 10)	
Gantt Chart Feature (Figure 14)	
Monitoring and Control	9/19/2016-12/5/2016
PMTool Testing	
Progress Reports	

Figure 3 - Project Milestones /Deliverables Table for Fall Semester 2016

Spring Semester 2017	
Project Deliverables	Start Date - Completion Date
Executing	1/30/2017-3/13/2017
Team Manager Screen (Figure 12)	
Active Projects Feature (Figure 13)	
Update Project Details Screen (Figure 14)	
Group Chat Feature (Figure 14)	
Admin User Edit Screen	
Admin User Management Screen	
Project Task Screen (Figure 14)	
Documents/Templates Screen (Figure 19)	
To Do List Feature (Figure 14)	
Calendar Feature	
Report Feature	
Resource Management Feature	
Monitoring and Control	1/23/2017-4/24/2017
Integrate Unit Testing	
PMTool Testing	
Progress Reports	

Figure 4 - Project Milestones /Deliverables Table for Spring Semester 2017

2.9. Project Timeline/Gantt Charts

Figures [5](#) and [6](#) provide timeline details for both the first semester and second semester. The first semester was our project plan and design phase. Throughout the first semester we focused on the essentials for our Project Management Tool and the backend development which included the database/server setup. The essentials

PMTool

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included the Home Screen, Login Screens, Project Request Screen, and Project Assign screen. The details provided for second semester are estimates at this time and will change over the course of development. The final report for the second semester will include an updated Gantt Chart and Timeline.

Project Management Tool Gantt Chart: Fall Semester 2016

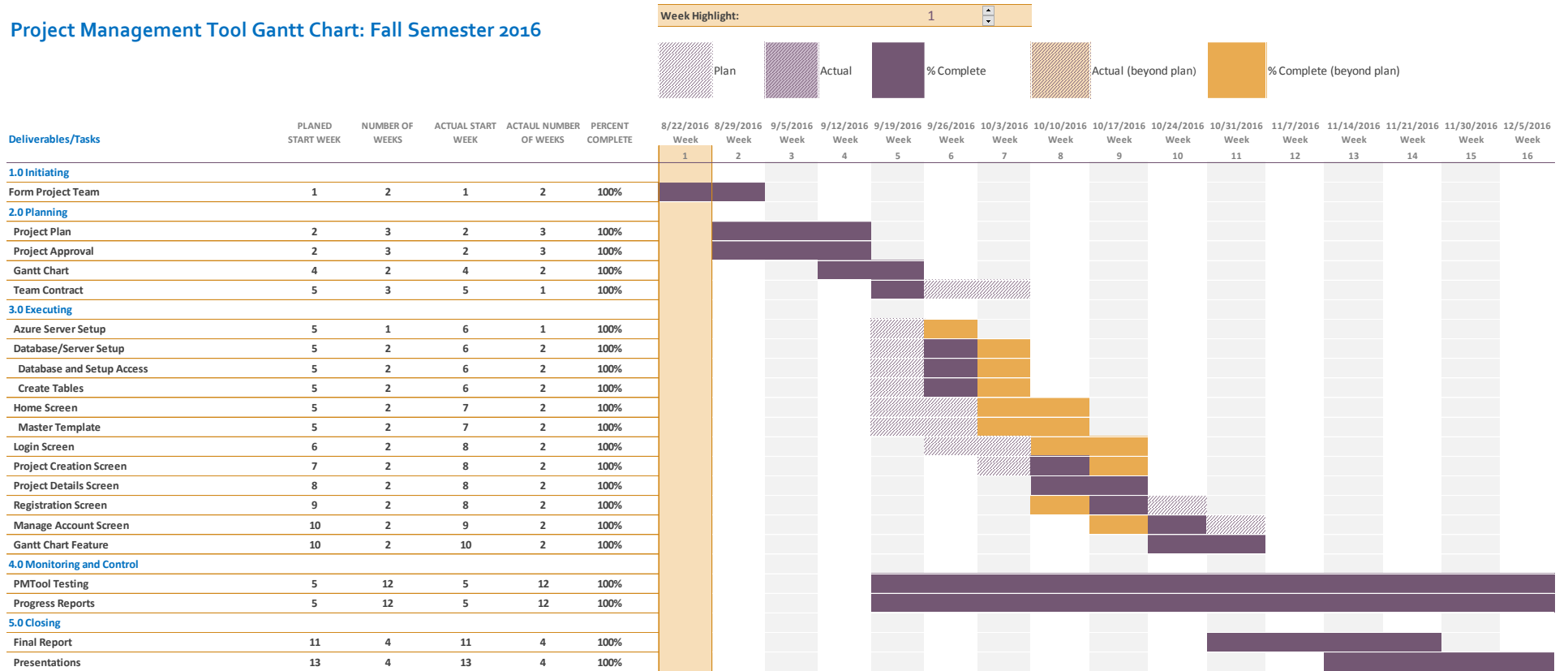


Figure 5 - PMTool Gantt chart: Fall Semester 2016

Project Management Tool Gantt Chart: Spring Semester 2017

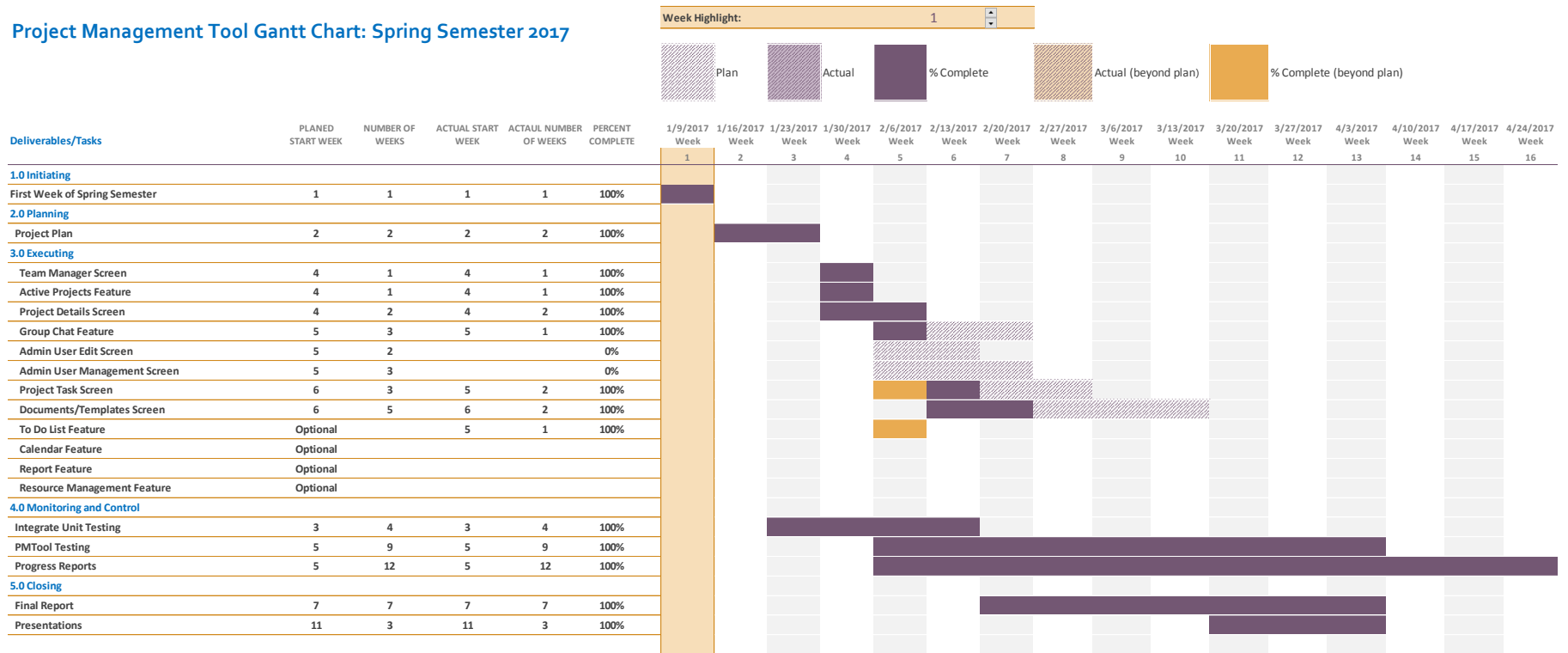


Figure 6 - PMTool Gantt chart: Spring Semester 2017

2.10. Proposed Budget

Figure 7 below describes the overall budget to create the PMTool for a current software development company. The cost for a software development company would be around \$32,060. For this senior project it will cost the team around \$60.

No.	Item	Item Amount	Item Price, \$	Item Total
Software				
1	Labor	200	\$80.00	\$16,000.00
2	Microsoft Visual Studios	1	\$0.00	\$0.00
Server/Database				
3	Labor	200	\$80.00	\$16,000.00
4	Microsoft Azure Database	12 Months	\$5.00	\$60.00
Supplies				
5	Misc. Supplies	-	\$ -	\$ -
			Subtotal	\$32,060
			Total for PMTool Inc.	\$60.00

Figure 7 - Proposed Budget Table

2.11. Problems Encountered

During the course of development our team encountered two main issues. The first issue was integrating authorization/authentication and the second issue was setting up the Entity/Identity framework. The lack of experience working with authorization/authentication and Identity framework added to problem. Identity framework was a new concept to our team. To become familiar with Identity framework and Middleware we researched

information online to guide us through the development. After further research our team learned that Identity framework works directly with Middleware, which acts as a bridge between the database and the application. The biggest challenge was taking something that we understood and felt comfortable with, such as entity framework, and integrate it with something completely new.

2.12. Future Recommendations

If we were to start over from scratch we would have spent less time during the planning and gathering stage and more time developing in the fall semester. Once development started we ran into problems that required research and education. Learning what was new took valuable time away from our development and if our team had started sooner in fall we could have made more use of our time in the spring semester. The goal for last semester was to continue to use the time we had sparingly so that our team could have a working prototype for the expo in the spring. We have successfully met that goal and we are working on implementing new features that was originally not in our original plan. If we continue on this path we will have a better prototype for the expo then we anticipated. The biggest recommendation for future projects would be to manage time wisely from start to finish as we were able to do in spring semester.

3. Conclusion

Throughout the fall semester we learned about existing Project Management Tools and the most common features integrated in the paid versions. This information was important in order to determine what was needed in our free Project Management Tool to make our application stand out from others. We came to the conclusion in fall that we would not be able to produce a Project Management Tool as preferable as some of the others that are currently being paid for. However, we could produce a version that could be used for small businesses and school projects. We learned that the features that we had originally sought out to complete were not attainable in fall due to the timeframe we were given. Several changes were made to our Gantt chart and overall plan to adjust for the time we had spent on other requirements. Pertaining to development we learned authorization/authentication and how to integrate Entity/Identity framework.

After fall semester we advanced our knowledge and used what we learned to push ourselves forward in spring. We completed all requirements that we set out for, completed requirements that we removed in fall, and implemented a few features we did not originally plan for. Our progress in spring semester shows that we became more aware of what was expected and managed our time more efficiently.

4. References

4.1. Website Sources

- (1) “Top Project Management Tools”. Capterra.com. Accessed October 27, 2016
- (2) “What is Agile methodology? Examples, when to use it, advantages and disadvantages”. Istqbexamcertification.co. Accessed October 27, 2016

4.2. Technology Sources

- (3) “DHHTMLX”. Gantt Chart GNU GPL. dhtmlx.com.
- (4) “Velonic Admin Dashboard & Frontend”. Bootstrap Theme. wrapbootstrap.com.



5. Appendix A

5.1. Testing Plan

Testing Overview:

Testing is an ongoing process during development to insure that all requirements are met. The requirement section below will explain the requirements that will be tested throughout the development process. The following individuals should use review these requirements and complete proper testing:

- Project Managers
- Developers

Scope:

The PMTool application will be tested according to the requirements explained in the [Requirement](#) section below.

Objective:

The objective for testing the application according to the requirements is to verify that each component of the PMTool is working properly as designed. The developers will run tests during development and the Project Managers will follow up for a second round of testing. These tests are completed to find any issues or concerns with the PMTool application and apply the necessary changes before other issues arise.

Testing Procedures:

Each requirement will be tested according to the matching test case/scenario. Each test will be documented in the [Testing Report](#) according to the procedures in place. If a requirement fails according to the test cases, the reason will be documented, and a developer will follow up on the issue to insure that the issue is resolved. If an issue with a requirement cannot be resolved a meeting will be held to discuss possible solutions.

Functional Requirements

This section provides detailed, functional requirements for the items that are considered in-scope for this project. A functional requirement is something the user expects the system to perform and / or produce.

1.1. User Login Functionality

Req. #	Description
1.1.001	Users who do not have access to the PMTool should have the ability to access the “Register” screen to register.

Req. #	Description
1.1.001.1	<p>Unregistered users will be required to enter an Email Address, Phone Number, and Password to register for an account.</p> <p>The following verifications must be made before a user can register:</p> <ul style="list-style-type: none"> • The Email Address field must be a valid email address. • The Password must be at least 6 characters long. • The Password and Confirmation Password must match. • The Phone number field is required.
1.1.001.2	Once the unregistered user selects the Register button the user will be sent a confirmation email before the user can gain access to the PMTTool.
1.1.002	Users should have the ability to access the login screen to enter their login credentials.
1.1.002.1	Users must enter a valid email and password to gain access to the PMTTool.
1.1.002.2	Authorized users will be directed to the Team Management Screen after selecting the Login button.
1.1.003	By selecting the user's email address at the top right corner of the screen the user will be able to access the Manage Account screen.
1.1.003.1	The user will have the ability to update their password on the Manage Account screen.
1.1.003.1.1	<p>The user must enter the current password and create/confirm a valid new password.</p> <ul style="list-style-type: none"> • The Password must be at least 6 characters long. • The Password and Confirmation Password must match.
1.1.003.2	The user will have the ability to add a picture to their account on the Manage Account screen.
1.1.003.3	If a logged in user selects the home button at the top left hand corner of the screen the user will be directed to the Team Management screen.

1.2. Team Management Screen Functionality

Req. #	Description
1.2.001	<p>Users will have two windows available on the Team Management Screen.</p> <ul style="list-style-type: none"> • My Teams • Teams
1.2.002	Users will have the ability to create a team on the My Teams window by selecting the New button.

Req. #	Description
1.2.002.1	The New Team screen will require a Name to be entered before the user can Submit it.
1.2.002.2	The New Team will be displayed in the Teams window.
1.2.003	Users will have the ability to edit teams on the My Teams window.
1.2.004	Users will have the ability to view active teams they are assigned to in the Teams window. Status will state: Active.
1.2.004.1	Users will have the ability to see teams that they can join. Status will state: Join?
1.2.004.2	Users can join the team by selecting the checkbox next to the “Join?” label.

1.3. Project Manager Functionality

Req. #	Description
1.3.001	If a user creates a team, the user will have the ability to create projects within that team.
1.3.002	If a user creates a team, the user will be displayed in the “Project Master” field on the Project Management screen.
1.3.003	If a user creates a team, the user will have the ability to invite team members to that team.
1.3.004	If a user selects a project on the Project Management screen they will be directed to the Project Details screen.
1.3.004.1	The Project Details screen should display the following fields in the top window: <ul style="list-style-type: none"> • Start Date: • End Date: • Budget: • Description:
1.3.004.2	The Project Details screen will display the Gantt Chart feature in the second window below the project details.
1.3.004.3	The Project Details screen will display the Project Tasks feature in a window directly below the Gantt Chart feature.
1.3.004.4	The Project Details screen will display the Team Chat feature to the right of the Project Tasks feature in a window.

Req. #	Description
1.3.004.5	The Project Details screen will display the document bucket below the Project Tasks feature and Team Chat feature in a window.
1.3.005	The user will have the ability to update the project details by selecting project setting's button at the top right corner of the Project Details Screen.
1.3.005.1	<p>The user can update the following fields:</p> <ul style="list-style-type: none"> • Project Name: • Start Date: • End Date: • Budget: • Description:
1.3.006	The user will have the ability to assign a user to the project by selecting the flag button to the left of the settings button.

5.2. Testing Report

Each requirement in section 5.1 was tested according to the matching test case/scenario. Each test was documented in the Testing Report below according to the procedures in place. See Figure 8.

Req No.	Item #	Test Case #	Input	Expected Output	Actual Output	Pass/Fail	Reason	Date
1.1	1.1.001	1	Select Register button at top right of screen.	Directed to Register Screen	Directed to Register Screen	Pass		1/29/2017
1.1	1.1.001.1	1	Email Address: email Password: 123 Confirm Password: Phone Number:	Error Messages: -The Email Field is not a valid e-mail address. -The Password must be at least 8 characters long. -The password and confirmation password do not match. -The Phone Number field is required.	Error Messages: -The Email Field is not a valid e-mail address. -The Password must be at least 8 characters long. -The password and confirmation password do not match. -The Phone Number field is required.	Pass		1/29/2017
		2	Email Address: jim@yahoo.com Password: 12345678 Confirm Password:	User will be registered. No Error Messages.	User registered. No Error Messages.	Pass		1/29/2017

			12345678 Phone Number: 9379379379					
1.1	1.1.001.2	2	User selects the Register button at bottom of the register screen.	User will be sent an email confirmation before gaining access to PMTool.	Error Messages: Email Confirmation has not been setup.	Fail	Email Confirmation has not been properly setup at this time.	1/29/2017
1.1	1.1.002	1	Select Login button at top right of screen.	Directed to Login Screen	Directed to Login Screen	Pass		1/29/2017
1.1	1.1.002.1	1	User enters an invalid email and password.	Error Message: Invalid Login Attempt	Error Message: Invalid Login Attempt	Pass		1/29/2017
		2	User enters a valid email and password.	User logs in without error message.	User logs in without error message.	Pass		1/29/2017
1.1	1.1.002.2	2	User enters a valid email and password and selects the Login button.	User will be directed to the Team Management Screen after logging in.	User was directed to the Team Management Screen after logging in.	Pass		1/29/2017
1.1	1.1.003	1	User selects their email address at the top right corner of the screen.	User will be directed to the Manage Account screen.	User directed to the Manage Account screen.	Pass		1/29/2017
1.1	1.1.003.1	1	User selects change your password.	User will be directed to the Change Password screen.	User directed to the Change Password screen.	Pass		1/29/2017

1.1	1.1.003.2	1	Current Password: Password: Confirm Password:	Error Messages: -The current password field is required. -The New password field is required.	Error Messages: -The current password field is required. -The New password field is required.	Pass		1/29/2017
		2	Current Password: Password1234 Password: Password4321 Confirm Password: Password4321	Password will be changed. No errors.	Password changed. No errors.	Pass		1/29/2017
1.1	1.1.003.2	1	User selects upload profile picture.	User will be able to select a photo to upload.	User can select a photo to upload.	Pass		1/29/2017
1.1	1.1.003.3	1	Logged in user selects the home button.	Logged in user directed to Team Manager Screen	Logged in user directed to Team Manager Screen	Pass		1/29/2017
1.2	1.2.001	1	User enters Team Management Screen	Team Management Screen displays two windows. My Teams and Teams	Team Management Screen displays two windows. My Teams and Teams	Pass		2/1/2017
1.2	1.2.002	1	User Selects the New button on the My Teams window.	User will be directed to the New Team screen.	User directed to the New Team screen.	Pass		2/1/2017
1.2	1.2.002.1	1	User enters no name in the New Team screen.	User will receive an error message.	User did not receive an error message and a team was added	Fail	No validation was implemented for the team	2/1/2017

					without a team name.		name field.	
		2	User enters a valid name into the New Team screen. Team Name: Team Chat	User directed to Team Management Screen with no error message.	User directed to Team Management Screen with no error message.	Pass		2/1/2017
1.2	1.2.002.2	2	User is directed to Team Management Screen after creating a new Team Name: Team Chat	Team Chat should be displayed on the Teams window.	Team Chat is displayed on the Teams window.	Pass		2/1/2017
1.2	1.2.003	1	User selects edit on a team displayed in the My Teams window.	User has the ability to edit team name.	User has the ability to edit team name.	Pass		2/1/2017
1.2	1.2.004	1	User views the Teams window.	Teams are displayed in the Teams window as Status: Active.	Teams are displayed in the Teams window as Status: Active.	Pass		2/1/2017
1.2	1.2.004.1	1	User views the Teams window.	Teams that can be joined will display in the Teams window as Status: Join?	Teams that can be joined will display in the Teams window as Status: Join?	Pass		2/1/2017
1.2	1.2.004.2	1	User selects the check box next to Join? To join the team.	User should be added to the team.	User was not added to the team and nothing takes place.	Fail	The join feature must be implemented.	2/1/2017

1.3	1.3.001	1	User creates team and selects the team.	User will be able to create a project within that team.	User was able to create a project within that team.	Fail	The screen was not linked properly to the button.	2/3/2017
1.3	1.3.002	1	User creates team and selects the team.	User will be see "Me" displayed next to the Project Master field.	"Me" was displayed next to the Project Master field.	Pass		2/3/2017
1.3	1.3.003	1	User creates team and selects the team.	User will have the ability to invite team members to that team.	User has the ability to invite team members to that team.	Pass		2/3/2017
1.3	1.3.004	1	User selects a project on the Project Management screen.	User will be directed to the project's Project Details screen.	User directed to the project's Project Details screen.	Pass		2/3/2017
1.3	1.3.004.1	1	User selects a project on the Project Management screen.	The Project Details screen should display the following fields in the top window: -Start Date: -End Date: -Budget: -Description:	The Project Details screen displayed the following fields in the top window: -Start Date: -End Date: -Budget: -Description:	Pass		2/3/2017
1.3	1.3.004.2	1	User selects a project on the Project Management screen.	The Gantt Chart feature should be displayed on the second window below the project details.	Gantt Chart was not displayed.	Fail	No data in tasks to display Gantt Chart.	2/3/2017

1.3	1.3.004.3	1	User selects a project on the Project Management screen.	The Project Tasks feature should be displayed in a window directly below the Gantt Chart feature.	No Project Tasks displayed.	Fail	No task data.	2/3/2017
1.3	1.3.004.4	1	User selects a project on the Project Management screen.	The Team Chat feature should be displayed to the right of the Project Tasks feature in a window.	Team Chat was not displayed.	Fail	Team Chat has not been implemented.	2/3/2017
1.3	1.3.004.5	1	User selects a project on the Project Management screen.	The document bucket should be displayed below the Project Tasks feature and Team Chat feature in a window.	No documents displayed.	Fail	Document bucket has been created but has not been implemented.	2/3/2017
1.3	1.3.005	1	User selects the settings button on the Project Details screen.	User should be directed to the Update Project Details screen.	User directed to the Update Project Details screen.	Pass		2/3/2017
1.3	1.3.005.1	1	User updates the following fields: Description: Project Progression Budget: \$160	Updates should be accepted without errors.	Updates accepted without errors.	Pass		2/3/2017
1.3	1.3.006	1	User selects the assign user button on Project Details Screen.	User should be able to assign users to project.	User has the ability to assign users to project.	Pass		2/3/2017

Figure 8 – Testing Report

5.3. PMTool Screenshots

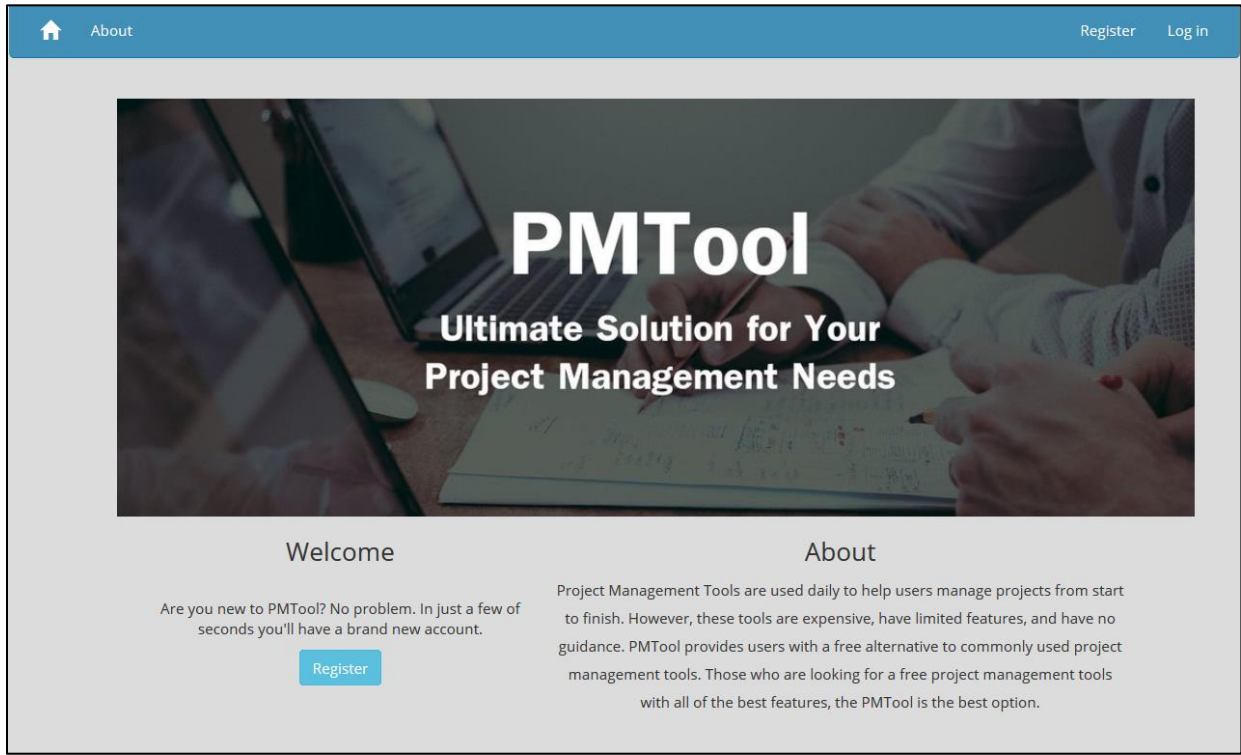


Figure 9 – PMTool Home Screen

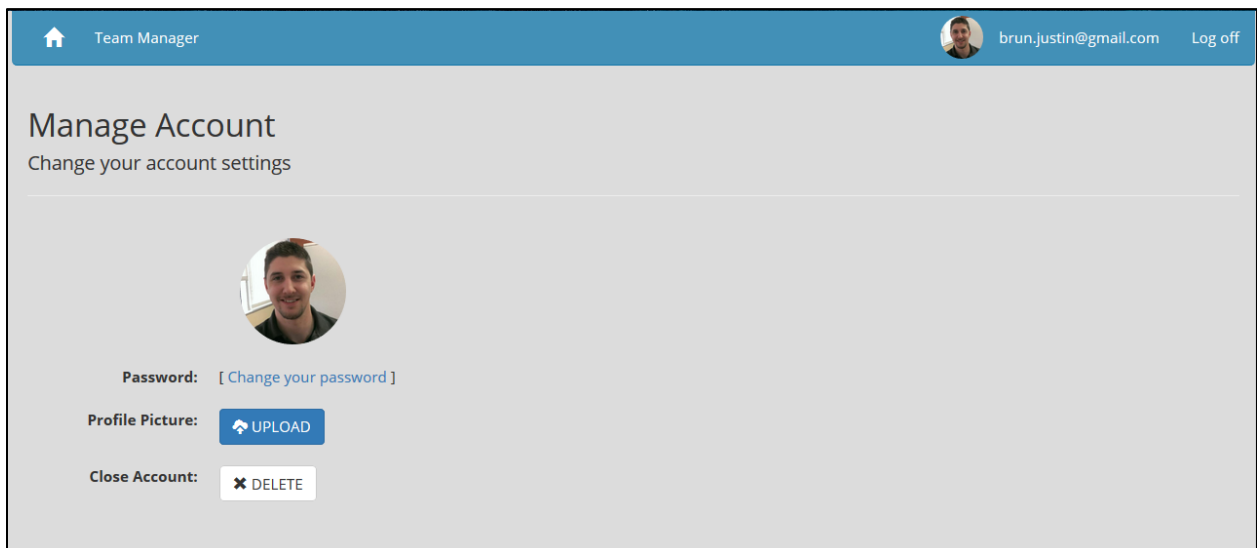


Figure 10 – Manage Account Screen

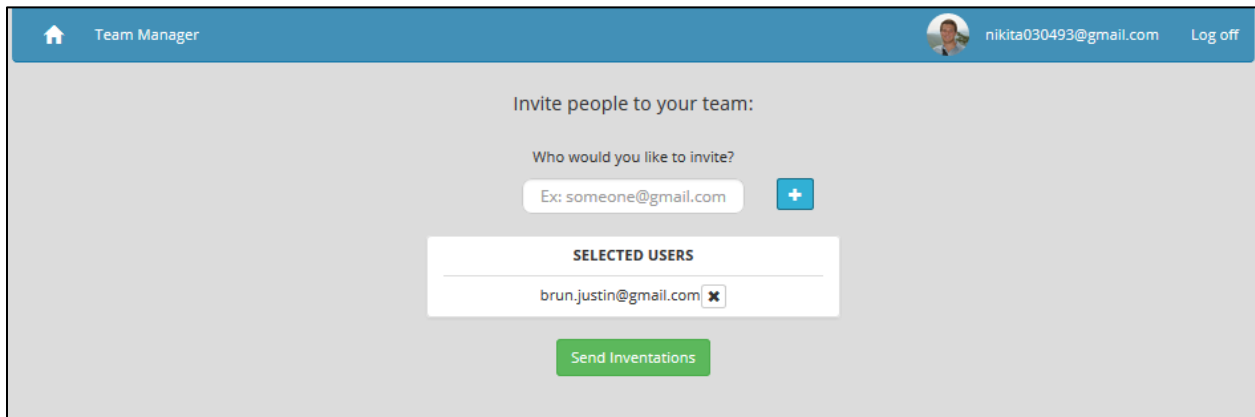


Figure 11 – Invite Users to Team Screen

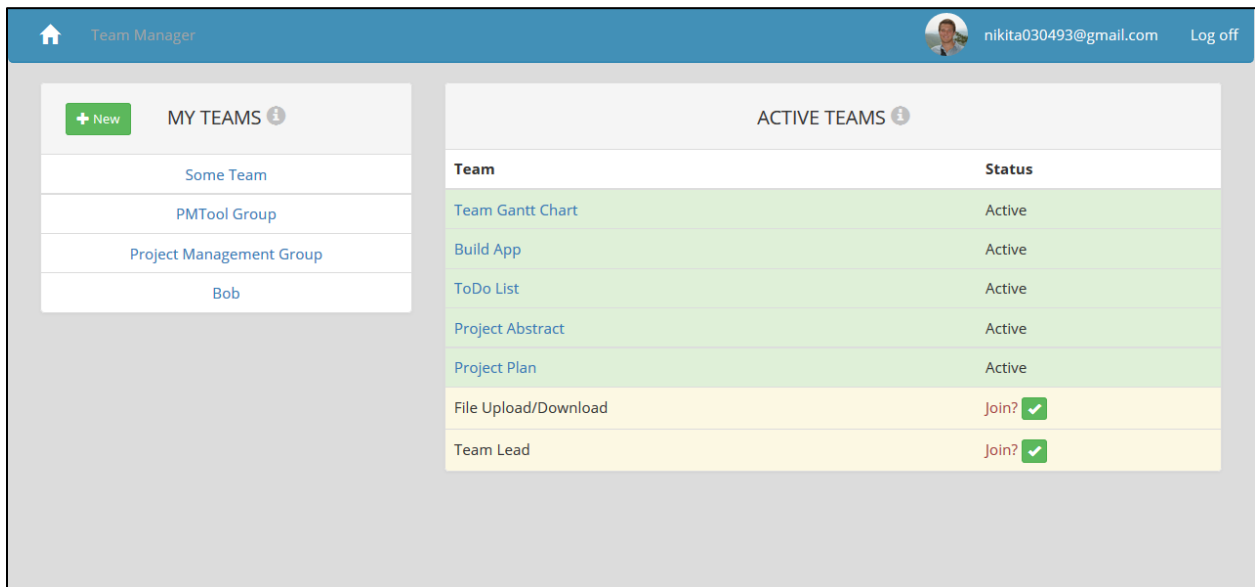


Figure 12 – Team Management Screen

Team Manager

nikita030493@gmail.com
Log off

TEAM: **PMTool Group** ⓘ ⚙️

Team Master:
Nikita Uryupin

PROJECTS

+ Add

Project Name	Start Date	End Date	Budget	Description
Final Presentation	9/1/2016	4/11/2017	\$1,000	Project Mangement
Some Proect	4/5/2017	4/28/2017	\$100,000	Desc
Team	4/2/2017	4/5/2017	\$1,000	Desc

TEAM MEMBERS INVITE

Name	Username	Status
Tim Ahtirski	timurpls@gmail.com	Active User
Justin Brun	brun.justin@gmail.com	Active User
Елизавета Агаркова	liza.a.v@yandex.ru	Active User
Alex Kozlov	alex@gmail.com	Invited. Pending for approval.
Mihail Veshnevsky	mishav@mail.uc.edu	Invited. Pending for approval.

Figure 13 – Project Screen

Team Manager

nikita030493@gmail.com
Log off

Members
PROJECT: Final Presentation ⓘ

Start Date: 9/1/2016	End Date: 4/11/2017	Budget: \$1,000	Description: Project Mangement
--------------------------------	-------------------------------	---------------------------	--

Task name	Start time	Duration		27 Feb	28 Feb	01 Mar	02 Mar	03 Mar	04 Mar	05 Mar	06 Mar	07 Mar	08 Mar	09 M
Application	2017-02-28	10	+	Application										
Documentation	2017-03-01	4	+	Documentation										
Gantt Chart	2017-03-02	4	+	Gantt Chart										
Back End	2017-03-03	4	+	Back End										
Home Page	2017-03-04	4	+	Home Page										
Chat Feature	2017-03-05	4	+	Chat Feature										
To Do List	2017-03-07	3	+	To Do List										
New task	2017-03-08	4	+	New task										

TODO

3 of 3 remaining Archive

- Call Tim at 12
- Enter time card
- Set up meeting with Justin

Add

CHAT

Justin Brun

Hi Nik! How is the project going?

15:40

Nikita Uryupin

Hi Justin! The project is 95% complete!

15:40

Send

Figure 14 – Project Details Screen, Gantt chart Feature, To-Do List Feature, and Team Chat Feature

Team Manager

nikita030493@gmail.com Log off

Project Settings

Name
Final Presentation

Start Date
9/1/2016

End Date
4/11/2017

Budget
\$ 1,000 .00

Description
Project Mangement

Save

Danger Zone

Figure 15 – Project Settings Screen

About Register Log in

Log in

Email

Password

Remember me?

Log in

Don't have an account yet? [Register!](#)

[Forgot your password?](#)

Figure 16 – Login Screen

The Register screen features a blue header with a home icon, 'About', 'Register', and 'Log in' links. The main content area is light gray and contains the title 'Register' and the instruction 'Create a new account.' Below this is a vertical stack of six white input fields with blue borders, labeled 'First Name', 'Last Name', 'Email', 'Password', 'Confirm password', and 'Phone Number'. A blue 'Register' button is positioned below the fields. At the bottom, there is a link that says 'Already registered? Sign In!'.

Figure 17 – Register Screen

The New Project screen has a blue header with a home icon, 'Team Manager', a user profile picture, the email 'brun.justin@gmail.com', and a 'Log off' link. The main content area is light gray and features the title 'New Project'. It contains five input fields: 'Name' (text), 'Start Date' (calendar icon), 'End Date' (calendar icon), 'Budget' (with '\$' and '.00' currency symbols), and 'Description' (text area). A green 'Create' button is located below the fields. A 'Back' button with a left arrow is in the bottom left corner.

Figure 18 – Project Creation Screen


File Name	File Format	Date Uploaded	
↓ FullSizeRender 1	.jpg	4/11/2017	✕
↓ FullSizeRender 2	.jpg	4/11/2017	✕
↓ FullSizeRender	.jpg	4/11/2017	✕
↓ Screen Shot 2017-02-16 at 11.17.07 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-01-14 at 12.21.43 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-01-12 at 9.19.07 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-01-14 at 12.21.41 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-02-16 at 11.17.07 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-01-14 at 12.21.43 PM	.png	4/11/2017	✕
↓ Screen Shot 2017-01-14 at 12.21.41 PM	.png	4/11/2017	✕

Figure 19 – File Upload/Download Manager

5.4. Tech Expo Poster

PMTool

Justin Brun, Tim Ahtirski, & Nikita Uryupin



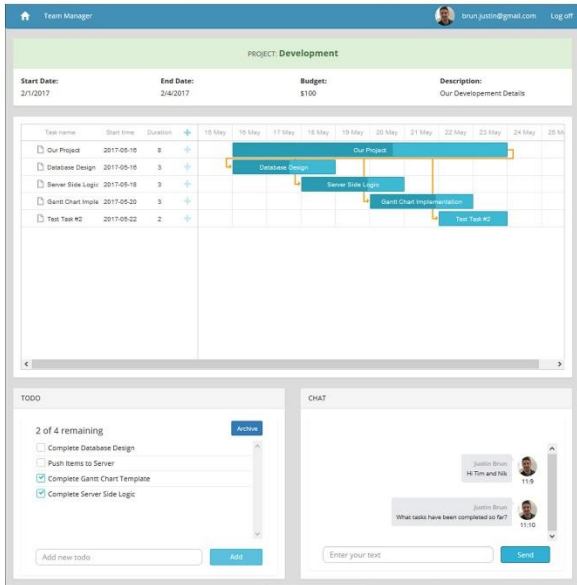
College of Education, Criminal Justice, & Human Services - School of Information Technology

Technical Advisor - Professor Russell McMahon

Abstract

Project Management Tools are used daily to help users manage projects from start to finish. The Project Management Tools that are in use today; however, are expensive and restrict users to only a few features. PMTool provides students and businesses with a free alternative to commonly used Project Management Tools. PMTool allows users to join teams, create projects, and manage those projects throughout the development life cycle. In addition, PMTool provides its users with project reporting tools, a chat room, a place to store important documents, as well several other features.

Application Example



Problem

Existing Project Management Tools are expensive and restrict users to only a few features. In addition the existing Project Management Tools provide no guidance on how to use their features. The lack of options forces users into expensive contracts that contain endless fees.

Solution

Allow users to manage projects without paying excessive monthly fees. Users will be able to create projects, assign projects/tasks to teams, and view active projects all in one easy to use application. In addition, including these features into a free application will allow users to learn more about project management and how to create/manage projects.

Technical Elements




Figure 20 – 2017 Tech Expo Poster