

**Computer Science and Engineering**

**Pitch’n**

# Project Management Plan

**Version 1.0**

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Project Team Number: A10

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**REVIEW AND APPROVALS**

|  |  |  |  |
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| **Date** | **Revision Number** | **Purpose** |
| November 4, 2020 | Version 1.0 | Initial Release |
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## **1. OVERVIEW**

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| **1.1 Project**  **Summary** | 1. The owner of a local shelter wanted to create an online medium for users to be able to see what things shelters need and accept, their operating hours, and their location. Pitch’n is intended to make donating easy and fun and make the jobs for the centers a bit easier. 2. The purpose of this SPMP is to identify the project management plans, the activities, budget, and environment for the project. 3. The intended audience of the SPMP is the client, software quality group, and the development and project management teams. |

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| **1.2 Purpose, Scope, and Objectives** | The purpose of Pitch’n is to provide a more effective means of donating to shelters or other similar locations. It acts as an online medium for users to be able to see what things shelters need and accept, their operating hours, and their location. Therefore, the Pitch’n system will include the following functionality: information on donation centers, and a system for donors to access this information. The application does not provide delivery services between the users and the shelters. Pitch’n is intended to make donating easy and fun and allow shelters to manage more efficiently the items that they want to receive. It allows the shelters to receive items that they may not usually receive to help their visitors more effectively while also disseminating information to people who may not usually get it. |

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| **1.3 Assumptions and Constraints** | The Pitch’n system is assuming the donators are able to travel to the donation centers on their own. The system only provides the information of donation centers and will display their information based off the center. Donators will also have to share their location to see what Donation centers are near, and this may be a problem because not all donators want to share their location. These locations (for both Donators and Donation Centers) will have to be safe. And the Pitch’n system will have to be accessible on all devices, with an easy to use interface. |

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| **1.4 Project**  **Deliverables** | Project Proposal: September 22, 2020  Software Business Specification (SRS - Business Definition): October 8, 2020  Software Requirement and Analysis Specification (SRS-Requirements): October 20, 2020  Software Project Management Plan (SPMP): November 5, 2020  Software Analysis Specification - Final (SRS - Analysis): November 17, 2020  Project Presentation: December 10, 2020 |

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| **1.5 Schedule and**  **Budget Summary** | Major work activities include:   1. Planning    1. Software Project Management Plan: Nov 17, 2020 2. Execution    1. Project Presentation: Dec 10, 2020 3. Closing    1. Project updates and fixes: Dec 17, 2020 |

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| **1.6 Plan** | **Evolution of the** | As time progresses the Pitch’n system will continue to develop aiding Donation Centers receive items that they are in need of, and as changes happen, they will be handled effective immediately. |

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| **2** | **REFERENCES** | Project Proposal, Team A10, September 22nd, 2020    System Requirements Specification, Version 1.0, Team A10, SRS-001, October 8th, 2020  System Requirements Specification, Version 1.1, Team A10, SRS-001, October 22nd, 2020 |

**Donators:**

Users who are donating to the Donation Centers

**Donation Centers:**

Clients who want to make known of what they need to be donated

1. **DEFINITIONS**

1. **PROJECT**

**ORGANIZATION**

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| **4.1 External**  **Interfaces** | The organizational boundaries exist between the project and the auditing software, along with the organization that is providing the developing environment. |

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| **4.2 Internal**  **Structure** | The internal structure of the project organization includes interfacing between the development team using applications such as Zoom and Discord. The team is structured where each member of the development team has an equal say in the project organization as well as its development. |

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| **4.3 Roles and Responsibilities** | * Avik Gomes: Author and submits documents to classes * Tanya Jain: Author and reviewer * Crystal Song: Author and reviewer |

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| **5 MANAGEMENT**  **PROCESSES** |  |  |
| **5.1 Start-Up Plan** |  | We started by selecting a two-man team (Avik and Tanya) and bouncing ideas for a project. Then an email was sent out for a third member, where Crystal replied. She came along with an idea for a service to let people know about what to donate where, and we all agreed on that. The Project Team Selection and Proposal was then sent where the name “Pitch’n” was thought of. |

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| ***5.1.1*** | ***Estimation Plan*** | In future versions of the SPMP. |

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| ***5.1.2*** | ***Staffing Plan*** | In future versions of the SPMP. |

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| ***5.1.3 Resource***  ***Acquisition Plan*** | In future versions of the SPMP. |

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| ***5.1.4*** | ***Training Plan*** | If any training needs to be done for any member of the team, resources will be given (i.e. books, articles, etc.), and they will have to display understanding of their newly acquired knowledge with some sort of project. |

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|  |  | The system needs to have a mapping system to locate the nearest centers from someone, have an API that allows users to save centers they want to donate to, and allow the centers to display their own data. To hold the donators and the donation centers information a server needs to be purchased and/or made to store the information and talk to the devices using the Pitch’n system. |
| **5.2** | **Work Plan** |  |

***5.2.1 Work Activities***

For each of the previously listed major work activities, each activity is decomposed into four processes. The first process is a risk assessment where risk factors are explored, and resources are allocated. The second process is executing the work which includes completing the documentation in time for the deadline. The third process is inspecting the work for any flaws. The fourth process is distributing the work by submitting it.

***5.2.2 Schedule Allocation***  Refer to the Gantt chart for this information (Section 12.3)

***5.2.3 Resource Allocation***

|  |  |
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| Activity | Resources |
| Project Proposal | Team members: Avik Gomes, Tanya Jain, Crystal Song  Other resources: Computers, Google Drive, Microsoft Word, Internet |
| System Requirements Specification, Project Domain | Team members: Avik Gomes, Tanya Jain, Crystal Song  Other resources: Computers, Google Drive, Microsoft Word, Internet |
| System Requirements Specification, Project Requirements | Team members: Avik Gomes, Tanya Jain, Crystal Song  Other resources: Computers, Google Drive, Microsoft Word, Internet |

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| ***5.2.4*** | ***Budget Allocation*** | In future versions of the SPMP. |

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| **5.3** | **Control Plan** | This subsection specifies the metrics, reporting mechanisms, and control procedures necessary to measure, report, and control product requirements. the project work schedule, budget, resources, and the quality of development processes and work products |

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| ***5.3.1 Requirement Control and Traceability*** | As the Pitch’n system evolves there will be prototypes given to both the Donation Centers and the Donators and based off their responses the system will adapt to make sure they get an application they need. |

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| ***5.3.2 Schedule Tacking and Adjustment*** | The system will be made on schedule with the help of the Gantt chart, and even if the actual schedule differs from the planned system the chart will be reevaluated to make sure that the system is done on time. |

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| ***5.3.3 Budget Tracking and Adjustment*** | In future versions of the SPMP. |

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| ***5.3.4*** | ***Quality Control*** | The quality of the work processes and resulting work products will be determined through reviews and assessments done by a third party. |

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| ***5.3.5 Reporting***  ***Mechanisms*** | In future versions of the SPMP. |

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| ***5.3.6***  ***Plan*** | ***Metrics Collection*** | We will continually try to get donator and donation center experience with the application to make sure that everything is okay. If something is not, we will respond by correcting any issues they may be having. |

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| **5.4 Risk Management Plan** | **Business Risk:** Donation Centers information not available  **Description:** Some donation centers may not be willing to provide their information  **Probability:** Very low  **How discovered:** Hypothesis  **Responsible Party Status:**  **Mitigation Plan:** Inform them about the benefits of Pitch’n.  **Technology Risk:** The google maps API may give errors  **Description:** Google maps can display wrong locations, or not show updated information.  **Probability:** Very low  **How discovered:** Hypothesis  **Responsible Party Status:**  **Mitigation Plan:** Update it frequently ourselves |

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| **5.5 Post**  **Implementation Plan** | In future versions of the SPMP. |

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| **6 TECHNICAL**  **PROCESSES** |  |  |

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| **6.1** | **Process Model** | Object oriented programming and the IBM Rational UML modeling is to be used. The waterfall model will be applied as well. |

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| **6.2 Methods, Tools, and Techniques** | To make the Pitch’n system the Google Maps API will be used as the map interface, to show where the donation centers are. But python will be used to make the distinction between the Donation Centers and the Donators and what they will be able to do in the application.  We are also using Microsoft Word and Microsoft Project to write the required documents and manage the development process. |

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| **6.3 Infrastructure**  **Plan** | The hardware for development will consist of the computers that the development team is in possession of. During development, the software that will be used is open-source software and programming IDEs. The operational development of the final product will be hosted on a third-party server. |

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| **6.4 Product**  **Acceptance and Migration Plan** | In future versions of the SPMP. |

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| **7 SUPPORTING PROCESES PLANS** |  |

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| **7.1 Configuration**  **Management Plan** | Google drive is being used to store and share all documents with each member of the team. The documents are configured in an organized manner, where each document has a unique name or number to help differentiate between them. All changes are agreed upon by the team and then scheduled for update on the next version release. |

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| **7.2 Qualification (Verification and Validation) Plan** | After executing the work needed for each activity, the verification plan will include milestone reviews and peer reviews. Each activity will be reviewed by a third party for defects. The validation plan for the project will consist of testing and inspection. Each component of the project will be carefully tested for functionality and ease of use. |

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| **7.3 Documentation**  **(library) Plan** | Every work product and document is given a name and a version number. All deliverables are generated by the team together. The team member assigned to submit the deliverables is responsible for reviewing the documents and ensuring that all specifications are met. |

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| **7.4 Quality**  **Assurance Plan** | To ensure that the software fulfills its commitment to the plan, the software will be reviewed and inspected. It will be based upon the test cases and requirements, and any defects noted during the tests will be assessed. |

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| **7.5 Reviews and**  **Audits** | At the completion of each deliverable, there will be testing and a project review. Defects will be reported and tracked with identifying information and a description. Each of these defects will be considered by the development team and fixed if necessary. |

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| **7.6 Problem Resolution Plans** | One of the main problems for the Pitch’n system would be displaying wrong information for whatever reason. It could be information about centers being swapped or just wrong data in the first place. This could be fixed by having a “Report An Issue” functionality on the application which either the donator or the donation center could use to let us know that something was wrong. After a report has been made the information will be fixed hastily. |

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| **7.7 Environment**  **Management Plans** | In future versions of the SPMP. |

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| **7.8 Process**  **Improvement Plan** | In future versions of the SPMP. |

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| **8. ADDITIONAL**  **PLANS** | In future versions of the SPMP. |
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## **10 RATIONALE**

None

## **11 NOTES**

None

## **12 APPENDICES**

### 12.1 Schedule Tracking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS – Business  Domain | Avik Gomes | 1.4 hours | 0.9 hour | 0.5 hour |
|  | Tanya Jain | 1.3 hours | 0.8 hour | 0.5 hour |
|  | Crystal Song | 1.3 hours | 0.8 hour | 0.5 hour |
|  | Summary for   entire team | 4 hours | 2.5 hours | 1.5 hours |

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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS –  Requirements | Avik Gomes | 1 hour | 0.6 hour | 0.4 hour |
|  | Tanya Jain | 1 hour | 0.6 hour | 0.4 hour |
|  | Crystal Song | 1 hour | 0.6 hour | 0.4 hour |
|  | Summary for entire team | 3 hours | 1.8 hours | 1.2 hours |

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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS –  Analysis -  Complete |  |  |  |  |
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|  |  |  |  |  |
|  | Summary for entire team |  |  |  |

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| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SPMP | Avik Gomes | 2 hours | 1.5 hours | 0.5 hour |
|  | Tanya Jain | 2 hours | 1.5 hour | 0.5 hour |
|  | Crystal Song | 2 hours | 1.5 hour | 0.5 hour |
|  | Summary for entire team | 6 hours | 4.5 hours | 1.5 hours |

**Cumulative**

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| --- | --- | --- | --- |
| Who (individual and Team) | Estimated | Actual | Difference |
| Avik Gomes | 4.9 hours | 3.5 hours | 1.4 hours |
| Tanya Jain | 4.8 hours | 3.4 hours | 1.4 hours |
| Crystal Song | 4.8 hours | 3.4 hours | 1.4 hours |
| Summary for entire team | 14.5 hours | 10.3 hours | 4.2 hours |

### 12.2 Defect Tracking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS – Business  Domain | Crystal Song, Avik Gomes, Tanya Jain | 3 | 3 | 0 |
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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS –  Requirements | Crystal Song, Avik Gomes, Tanya Jain | 3 | 3 | 0 |
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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SRS – Analysis - Complete | Crystal Song, Avik Gomes, Tanya Jain | 3 |  |  |
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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |

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| --- | --- | --- | --- | --- |
| Artifact or Deliverable | Who (individual and team) | Estimated | Actual | Difference |
| SPMP | Crystal Song, Avik Gomes, Tanya Jain | 6 |  |  |
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**Cumulative**

|  |  |  |  |
| --- | --- | --- | --- |
| Who (individual and team) | Estimated | Actual | Difference |
| Crystal Song, Avik Gomes, Tanya Jain | 15 |  |  |
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### 12.3 Gantt Chart/Microsoft Project/Spreadsheet Schedule

