# LameDucks Coffee Cart Rewards System
# Process Plan
**TEAM 007**
**Version: Final**

## 1. Introduction

We will be producing an Android mobile application for the LameDucks reward management system. The application will allow LameDucks employees to manage the rewards, and order history of their VIP customers in various locations. The application will also allow the managers of LameDucks coffee carts to generate a daily report of purchase and pre-order information.

## 2. Process Description

The reward management system will be implemented using the Rational Unified Process(RUP) which will consist of multiple phases and iterations throughout the application's design. There will be a set of documents and artifacts that are produced as part of this process. The description and purpose of these documents and artifacts generated in each of the phases are listed throughout this section

## 3. Team

Our team consists of 4 members. Each member will contribute to the various artifacts and documentation. It is expected that every member participate in peer review stages and complete code reviews as needed on GitHub. Team members are also expected to  review documents via Google docs and attend weekly team meetings.

### Bryan Smith

Bryan will be the lead for the following deliverables and artifacts:
- Use case documents and diagrams
- Supplementary and non-functional requirements
- Develop System architecture

### Sterling Taylor

Sterling will be the lead for the following deliverables and artifacts:
- Risk assessment
- User Manual
- Process plan

- Design model

## Sandip Agrawal

Sandip will be the lead for the following deliverables and artifacts:
- Vision document
- Develop system design
- Submitting project deliverables to T-Square

## Vijay Lakshmipathi

Vijay will be the lead for the following deliverables and artifacts:
- Project plan
- Test planning
- Develop database schema
- Requirements Traceability Matrix

# 4. Monitoring and Control Process

Changes will be monitored via weekly team meetings and will be implemented once the team agrees. As changes occur within the process the team will submit a new revision of the various documents, this will provide an organized way to track progression and changes within the process. The bulk of our diagrams and documentation will be written using the Google Docs platform. The team will take advantage of the comment system to highlight any areas that need attention. To monitor and control the process of development we will utilize the pull request functionality within GitHub. This will allow the team to perform code reviews before anything gets merged with the master branch.

# 5.Deliverables and Estimates

## Inception Phase Deliverables (Week 1)

### Vision Document
The vision document will outline the projects needs, requirements, production, solution, features, scope, accessibility and limitation of the LameDucks Reward Management System.

### UML Diagrams  - Initial Use Cases
The use case document and diagrams outline the behavior of the application. The documents and diagrams will give a specific representation to how various subjects interact with the system and what the expected outcome is. The use cases should depict the functional requirements of the system and will give the team a detailed overview of what needs to be created from a development perspective.

### Risk assessment document

The risk assessment document describes the various business and technical risks involved throughout the development process for the Rewards Management System. Each risk will document the threat level, description, likelihood, impact and mitigation strategy for the risk. The risks will be ordered by descending threat level.

## Elaboration Phase Deliverables (Week 2)

### UML Diagram - Software Architecture

The software architecture document and diagrams outline the underlying data structure of the application. These documents and diagrams give the specific information, structure, functions, and relationships between all objects, systems, functions, and interfaces of the coffee cart management system.

### UML Diagram- Software Design Implementation

The system implementation document and diagram outline how the application will be deployed and run among the various systems for the coffee cart management system. In particular it will illustrate and outline how all the different software pieces interact with each other. This diagram is similar to what a class diagram features. The final revision will feature a color map which will help map the traceability matrix to the software design.

### Non-functional and supplementary requirements

This document will be produced in Phase 2 of 4 of the RUP and will outline the various non-functional requirements that the system includes.

### User manual

The user manual will provide a concise description of how to use the system. The manual will outline the various features that the system provides and offer some general troubleshooting information for the system. The primary goal for the user manual is to supplement the training for the coffee cart managers and give them a resource to reference when using the system.

### Test planning

Test planning will create test cases for the main functional and logical requirements that the system must satisfy. These tests will be based off the use case diagrams and will be broken into various sub systems to make the organization of each test suite more readable. The test cases will be reviewed by the entire team and will be developed in the construction phase..

### Develop Prototype

The prototype will be an initial representation of how the system should function. With the prototype an initial database schema will be created. The prototype will provide the team with early feedback on how the system operates and will allow us to evaluate the direction of the project.

### Revise Risk Assessment

The assessment will be revised based off information that was discovered or modified throughout the various artifacts within phase 2.

### Revise Project Plan

Similar to the risk assessment, the project plan will also be revised as needed.

### Revise Use Case Model

The initial Use case model created in the Inception phase will be modified as needed.

## Construction Phase Deliverables (Week 3)

### Complete Use Case Model

The initial Use Case model and document will be be completed by phase 3.

### Develop database schema

The database schema created with the phase 2 prototype will be developed and documented.

### Develop and Unit test use cases

This artifact is based off the test planning that happened in phase 2. This is the process where the test cases will be implemented throughout the system. Each team member will have a specific system to test. Some of the larger systems may be organized to smaller sub systems to balance out the work. Unit Tests will be performed for the functional aspects of the system. Testing of the application interface features will be performed manually. There will be no automated test suite provided.

### Peer review of Alpha release

This should be a review of the initial version of the system. The system should be working for the most part at this point and will be reviewed to make sure the functional requirements are as expected. For any missing features or bugs discovered they will be documented and fixed within the last phase.

### System testing and results documentation

The system will be tested and the results will be documented. This document will follow the format:

| Action | Expected Behavior | Actual Result | Notes |
|--------|-------------------|---------------|-------|
| Add User | User is Added | User is Added | User was added without problem |

### Requirements Traceability Matrix

The traceability matrix will show the flow of data throughout specific use cases. The matrix will use color coding to map out how the information is represented on the Software Design Diagram.

### Fix system test issues

This artifact is based off the delta of expected behavior and actual results discovered in the system testing and results artifact.

### Peer view of Beta Release

Similar to the Alpha review, the Beta review will be a peer assessment of the changes that occurred due to the testing efforts. This will likely be a multi-iterative step that will happen until the system's expected and actual behavior is the same.

## Transition Phase Deliverables (Week 4)

### Review all deliverables

The team will meet to go over all the deliverables throughout the project and make any final changes. The majority of time in this phase will be review, any major changes will not be made as they should be discovered and resolved within phase 3. Examples of changes made in this stage would be: Document formatting, simple UI changes, spelling corrections, etc.

### Submit project to T-Square

A final commit id will be submitted to T-Square.

# 6. Project Timeline

| ID | Active | Task Mode | Name | Duration | Start | Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 1 | Yes | Auto Scheduled | Team 007 Coffee Cart Application | 22 days | June 23, 2014 8:00 AM | July 20, 2014 5:00 PM | |
| 2 | Yes | Manually Scheduled | Start Project | 22 days | June 23, 2014 8:00 AM | July 20, 2014 5:00 PM | |
| 3 | Yes | Manually Scheduled | Phase 1 - Inception | 6 days | June 23, 2014 8:00 AM | June 29, 2014 5:00 PM | |
| 4 | Yes | Manually Scheduled | Prepare Vision Document | 2 days | June 23, 2014 8:00 AM | June 24, 2014 5:00 PM | |

| | | | | | Start | Finish | Predecessors |
|---|---|---|---|---|---|---|---|
| 5 | Yes | Manually Scheduled | Prepare Project Plan | 2 days | June 23, 2014 8:00 AM | June 24, 2014 5:00 PM | |
| 6 | Yes | Manually Scheduled | Requirements. | 4 days | June 23, 2014 8:00 AM | June 26, 2014 5:00 PM | |
| 7 | Yes | Manually Scheduled | Document Use Cases | 2 days | June 23, 2014 8:00 AM | June 25, 2014 5:00 PM | |
| 8 | Yes | Manually Scheduled | Develop Initial Use Case diagram | 2 days | June 23, 2014 8:00 AM | June 25, 2014 5:00 PM | |
| 9 | Yes | Auto Scheduled | Prepare Risk assessment document | 2 days | June 23, 2014 8:00 AM | June 24, 2014 5:00 PM | |
| 10 | Yes | Auto Scheduled | Inception Review Stage Gate | 1 day | June 29, 2014 8:00 AM | June 29, 2014 5:00 PM | 4,5,6,9 |
| 11 | Yes | Manually Scheduled | Phase 2 - Elaboration | 6 days | June 30, 2014 8:00 AM | July 6, 2014 5:00 PM | 3 |
| 12 | Yes | Manually Scheduled | Document Supplementary/Non-functional Requirements | 1 day | June 30, 2014 8:00 AM | June 30, 2014 5:00 PM | |
| 13 | Yes | Manually Scheduled | Complete Use Case Document | 2 days | July 1, 2014 8:00 AM | July 2, 2014 5:00 PM | 12 |
| 14 | Yes | Manually Scheduled | Prepare Initial User Manual | 3 days | July 1, 2014 8:00 AM | July 4, 2014 8:00 AM | |
| 15 | Yes | Manually Scheduled | Develop System Architecture | 2 days | July 3, 2014 8:00 AM | July 4, 2014 5:00 PM | |

| | | | | | July 5, 2014 8:00 AM | July 6, 2014 8:00 AM | |
|---|---|---|---|---|---|---|---|
| 16 | Yes | Manually Scheduled | Document architectural goals and constraints | 1 day | | | |
| 17 | Yes | Manually Scheduled | Present architecture approach to team | 1 day | July 5, 2014 8:00 AM | July 6, 2014 8:00 AM | |
| 18 | Yes | Manually Scheduled | Update System Architecture Document (SAD) | 1 day | July 5, 2014 8:00 AM | July 6, 2014 8:00 AM | |
| 19 | Yes | Manually Scheduled | Develop System Design | 4 days | June 30, 2014 8:00 AM | July 3, 2014 5:00 PM | |
| 20 | Yes | Manually Scheduled | Develop Data Model | 1 days | July 1, 2014 8:00 AM | July 2, 2014 8:00 AM | |
| 21 | Yes | Manually Scheduled | Develop System Design Document (SDD) | 1 day | July 1, 2014 8:00 AM | July 2, 2014 8:00 AM | |
| 22 | Yes | Manually Scheduled | Test Planning | 4 days | June 30, 2014 8:00 AM | July 3, 2014 5:00 PM | |
| 23 | Yes | Manually Scheduled | Develop Test Cases | 3 days | July 1, 2014 8:00 AM | July 4, 2014 8:00 AM | |
| 24 | Yes | Manually Scheduled | Review and Approve Test Cases (Peer) | 1 day | July 6, 2014 8:00 AM | July 6, 2014 5:00 PM | |
| 25 | Yes | Manually Scheduled | Develop Executable Prototype | 4 days | July 7, 2014 | July 11, 2014 | |

| | | | | | 8:00 AM | 8:00 AM | |
|---|---|---|---|---|---|---|---|
| 26 | Yes | Manually Scheduled | Revise Risk assessment | 1 day | July 1, 2014 8:00 AM | July 1, 2014 5:00 PM | |
| 27 | Yes | Manually Scheduled | Revise Project Plan | 1 day | July 8, 2014 8:00 AM | July 8, 2014 5:00 PM | |
| 28 | Yes | Manually Scheduled | Phase 3: Construction (System Development) | 6 days | July 7, 2014 8:00 AM | July 13, 2014 5:00 PM | 11 |
| 29 | Yes | Manually Scheduled | Complete Use Case Model | 1 day | July 8, 2014 8:00 AM | July 8, 2014 5:00 PM | |
| 30 | Yes | Manually Scheduled | Develop database schema | 1 day | July 7, 2014 8:00 AM | July 7, 2014 5:00 PM | |
| 31 | Yes | Manually Scheduled | Develop and Unit Test Use Case "Customer Management System" | 2 days | July 7, 2014 8:00 AM | July 8, 2014 5:00 PM | |
| 32 | Yes | Manually Scheduled | Develop and Unit Test Use Case "Reporting System" | 2 days | July 7, 2014 8:00 AM | July 8, 2014 5:00 PM | |
| 33 | Yes | Manually Scheduled | Develop and Unit Test Use Case "Purchase System" | 1 day | July 7, 2014 8:00 AM | July 7, 2014 5:00 PM | |
| 34 | Yes | Manually Scheduled | Develop and Unit Test Use Case 4 | 1 day | July 7, 2014 8:00 AM | July 7, 2014 5:00 PM | |
| 35 | Yes | Manually Scheduled | Peer Review of Alpha release | 1 day | July 9, 2014 8:00 AM | July 9, 2014 5:00 PM | 31,32,33,34 |

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|---|---|---|---|---|---|---|---|
| 36 | Yes | Manually Scheduled | Perform System Testing. Document Results | 2 days | July 10, 2014 8:00 AM | July 11, 2014 5:00 PM | 35 |
| 37 | Yes | Manually Scheduled | Create Requirements Traceability Matrix (RTM) | 0 days | July 10, 2014 8:00 AM | July 11, 2014 5:00 PM | 35 |
| 38 | Yes | Manually Scheduled | Fix System Test Issues | 0 days | July 12, 2014 8:00 AM | July 12, 2014 8:00 AM | 36 |
| 39 | Yes | Manually Scheduled | Peer Review of Beta Release (construction Phase Stage Gate) | 0 days | July 13, 2014 5:00 PM | July 13, 2014 5:00 PM | 38 |
| 40 | Yes | Manually Scheduled | Complete User Manual | 1 day | July 10, 2014 8:00 AM | July 10, 2014 5:00 PM | 35 |
| 41 | Yes | Manually Scheduled | Phase 4 - Transition | 6 days | July 14, 2014 8:00 AM | July 20, 2014 5:00 PM | 30 |
| 42 | Yes | Manually Scheduled | Review All Project Submission deliverables | 5 days | July 14, 2014 8:00 AM | July 18, 2014 5:00 PM | |
| 43 | Yes | Auto Scheduled | Submit to t-square | 0.25 days | July 20, 2014 8:00 AM | July 20, 2014 10:00 AM | 42 |