Testing Spec Project: Cafeteria Management System: Reslove

T-RISE

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August 28, 2015

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Document Title	Design Requirements	
	Document	
Document Identification	Document 0.0.2	
Author	Rendani Dau, Elana Kuun,	
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Version	0.0.2	
Document Status	Second Version - added the	
	function templates for the	
	client controllers	

Version	Date	Summary	Authors
0.0.1	29 May 2015	First draft contains first two use cases	Rendani Dau,
		template methods and	Elana Kuun,
		declarations	Semaka Malapane,
			Antonia Michael
			Isabel Nel,
	27 A 2017		D 1 1 D
0.0.2	27 August 2015	Second draft adding all the client	Rendani Dau,
		and controllers for	Elana Kuun,
		the updated system	Semaka Malapane,
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1 Introduction

This document contains the functional requirements specification, architecture requirements and testing for the Resolve Cafeteria Management System that will be created for Software Engineering (COS 301) at the University of Pretoria 2015, by the group T-RISE. In this document we will thoroughly discuss and layout the project's design requirements to provide a clear view of the system as a whole. An agile method is being followed so the following document focusses on the PlaceOrder and ManageProfile modules.

2 Vision

The vision of this project is to implement a flexible, pluggable, fully functional software application that will be maintainable, with detailed supporting documentation and an instruction manual for the Cafeteria Management System. This system will assist in managing the cafeteria's inventory/stock, executing orders from the cafeteria, generating bills and sending these to the appropriate parties and facilitating payments for access cards (or the use of unique access card numbers).

3 Background

As specified in the project proposal document from Resolve - the cafeteria is currently cash only and does not accept bank cards or electronic payments. This makes it inconvenient for employees as they have to carry around cash if they want to purchase anything from the cafeteria. Hence, this is equivalent to purchasing from an external food outlet where they can also pay with their preferred method of payment. The employees have to hence use up fuel and time and lastly this does not bring in the maximum amount of income to the cafeteria, hindering its growth and improvement.

Resolve is therefore looking for a means to accept payments from employees for the canteen using their employee access cards or access card numbers, with an amount being deducted from their salary at the end of the month.

Resolve proposed the Cafeteria Management System to assist with this problem. After our first meeting with the client, they brought to our attention that at times the cafeteria does not even have enough stock to provide some of the menu items, thus the managing of inventory or stock will also be part of the system. The system will also predict what inventory/stock

needs to be bought for the next week in order to avoid such a problem. At the end of each month, the bill for the month will be sent to either payroll or to the employee. This option is configurable from the user's profile. The employee can also set a spending limit for each month for control purposes. The system will have its own maximum, such that users cannot set a limit that exeeds this.

4 Standards and conventions

4.1 Design standards

The diagrams are designed and created using UML. The main use case of the system is decomposed into components.

5 Authentication

5.1 something.client.controller.js

- 1. Declaration: angular.module('users').controller......
- 2. Methods:

•

6 Manage Profile

6.1 superuser.client.controller.js

1. Declaration:

```
angular.module('users').controller('superuserController', ['$scope', '$http', '$location', '$window', 'Users', 'Authentication', function($scope, $http, $location, $window, Users, Authentication) { }
```

- 2. Methods:
 - Assign roles\$scope.assignRoles = function(isValid) {}

Usage: Superuser can assign cashier, cafeteria manager, finance manager and admin roles

Assign roles admin role
 \$scope.assignRolesAdminRole = function(isValid) { }

Usage: Admin user also has access to the assign roles functionality and serves as a back up superuser

Change employee ID
 \$scope.changeEmployeeID = function(Boolean isValid) {}

Usage: The superuser can change the employee ID of the users if the user signed up with the incorrect ID or if the company changes the IDs.

Remove employee
 \$scope.removeEmployee = function(Boolean isValid) {}

Usage: The superuser is also able to remove users from the system, due to resignation or dismissal for example

Search employee
 \$scope.searchEmployee = function(Boolean isValid) { }

Usage: This function is used to retrieve employees from the system to be able to change their employe ID or remove them from the system

Search employee ID
 \$scope.searchEmployeeID = function(row) {}

Usage: This function is used to retrieve employee IDs

• Set system wide limit \$scope.setSystemWideLimit = function(Boolean isValid){ }

Usage: This is used by the superuser to set the maximum monthly spending limit for all the users of the system.

Set canteen name
 \$scope.setCanteenName = function(Boolean isValid){ }

Usage: The canteen name is configurable from the superuser's branding settings page.

Check user\$scope.checkUser = function(){}

Usage: This is a security function that checks to make sure that the authorized superuser is accessing the page and if this is not the case, the user will be redirected to the home page

Load employees \$scope.loadEmployees = function(){}

Usage: This function is used to dynamically populate the drop down menu for the change employee ID functionality

6.2 cashier.client.controller.js

1. Declaration:

angular.module('users').controller('cashierController', ['\$scope', '\$http', '\$stateParams', '\$location', 'Authentication', function(\$scope, \$http, \$stateParams, \$location, Authentication) {}

2. Methods:

Get orders\$scope.getOrders = function(){}

Usage: Function to obtain the list of orders that an order placed from the menu

 Mark as ready \$scope.markAsReady = function(username, orderNumber){}

Usage: Function that the cashier uses to send a notification to the user notifying the user that their order is ready. The function also changes the status in the model from open to ready.

Mark as collected
 \$scope.markAsCollected = function(username, itemName, orderNumber){}

Usage: On the click of the 'Order collected' button on the cashier page, this function will be called. It changes the status of the order in the model from ready/open to closed.

 Mark as paid \$scope.markAsPaid = function(username, itemName, orderNumber){}

Usage: On the click of the 'Paid and collected' button on the

cashier page, this function will be called. It changes the status of the order in the model from ready/open to closed.

Check user\$scope.checkUser = function(){}

Usage: This is a security function that checks to make sure that the authorized cashier is accessing the page and if this is not the case, the user will be redirected to the home page

6.3 cashier.client.controller.js

1. Declaration: angular.module('users').controller('FinanceController', ['\$scope', '\$http', '\$location', '\$stateParams', 'Authentication', function(\$scope, \$http, \$location, \$stateParams, Authentication) {}

2. Methods:

Get user orders\$scope.getUserOrders = function(){}

Usage: Function to obtain the orders placed by the users via adding to plate from the menu page and proceeding to place that order. The finance manager will enter the employee ID of the user in the textbox displayed on the page and the orders placed by that user will be displayed on that page.

Check user\$scope.checkUser = function(){}

Usage: This is a security function that checks to make sure that the authorized cashier is accessing the page and if this is not the case, the user will be redirected to the home page

- 7 Manage System
- 8 Manage Cafeteria
- 9 Manage Inventory
- 10 Place Order