



Smart Shop

Business Requirements Document

V 1.0

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1.0 Introduction

1.1 Purpose of this document

This document is aimed at:

- Providing the necessary inputs to the detailed requirements gathering phase and further on for the SDLC processes.
- This document also serves to establish the traceability between the Business Objectives and the requirements identified in the proposed solution and how they satisfy the stated objectives.
- Provide expectation traceability in terms of the requirements and the user expectation
- Serves as a formal template for documenting the Business Requirements that also includes statutory and regulatory requirements.

The purpose of this document is to systematically capture requirements for the project and the system to be developed. Functional requirements are captured in this document. It also serves as the input for the project scoping.

1.2 Project Overview

1.2.1 Objectives

Below are the objectives that shall be fulfilled post the execution of this project:

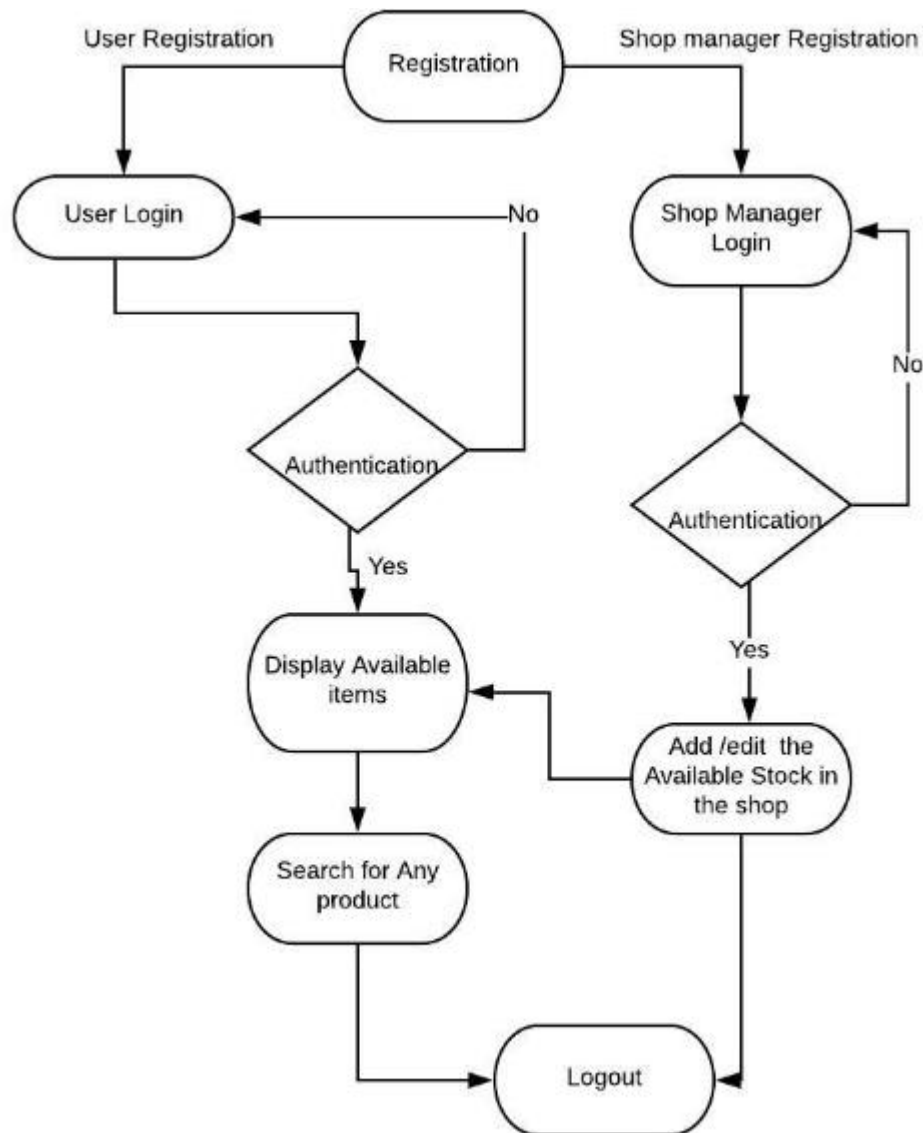
- User registration & credential authentication
- Shop manager registration & credential authentication
- Search available products
- Stock Management

1.3 Intended Audience

- All members of the project.
- Delivery assurance/excellence group

2.0 Process Architecture

Below is the overall functional flow of the project including the components of interaction



3.0 High Level Business Requirements

Note - Primary focus is to complete developing the critical requirements (highlighted in Yellow) and then to proceed with the remaining requirements.

S.No.	Business Requirement ID	Short Description	Description in detail	Interacting Business Processes
1	Req_1	User Registration	Ability of the system to procure the fundamental details of the user	
2	Req_2	User	Ability of the system to	

		Authentication	authenticate the user credentials of the registered user	
3	Req_3	Searching for the product	Ability of the system to display the current stock products to the user based on the input given by the user and also show the location of the product in the shop	
4	Req_4	Shop manager Registration	Ability of the system to procure the fundamental details of the Shop Manager	
5	Req_5	Shop manager Authentication	Ability of the system to authenticate the user credentials of the registered Shop manager	
6	Req_6	Stock Management	Ability of the system to allow the shop manager to add/modify the stock inventory of the Shop	
7	Req_7	Add Product details	Ability of the system to allow the Shop manager to add the Product details	
8	Req_8	Billing	Ability of the system to allow the Shop manager to generate bill for the selected products of the customer.	
9	Req_9	Update Stock	Ability of the system to update the stock once the item is billed. (The count of the quantity billed will be deducted from the total stock)	
10	Req_10	Update Purchase history	Ability of the system to update the Purchase history once billing is done for the customer.	
11	Req_11	Update the Aisle and shelf details for the product	Ability of the system to allow the Shop manager to update the aisle and shelf details	
12	Req_12	Flash offers	Ability of the system to flash the offers and deals for that day.	
13	Req_13	Update Offers / Deals	Ability of the system to allow the Shop manager to update the Offers / Deals for the day.	
14	Req_14	Purchase Points	Ability of the system to update the Purchase points for the billed amount.	
15	Req_15	Utilize purchase points on shopping	Ability of the system to allow user to utilize the total purchase points when the limit is reached.	
16	Req_16	New Products flash	Ability of the system to display the New products available in the store to the customer.	
17	Req_17	Display Purchase History	Ability of the system to display the purchase	

			history for the customer	
18	Req_18	Recommend products	Ability of the system to display recommend products based on the previous purchase / search	
19	Req_19	Log off	Ability of the system to disconnect from the system on clicking Log off	
20	Req_20	Other validations	Ability of the system to allow add on validations like Forget User ID, Forget Password	

4.0 Detailed Business Requirements

4.1 Functional Requirements

The functional requirements are charted for each of the high level requirements called out in the earlier section:

Additionally, the following elements are captured for each business requirement in the table provided below:-

* Req. Type = (F Core Functionality, E Exception, UI User Interface, R Reporting)

** Priority of Requirement = (1=Base Functionality, 2=Advanced Functionality, 3=Additional Opportunities)

** Originator = (Name of the business process of the system/ department or function name in the customer organization)

The Requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value but the project can proceed without it.
4	Low	This is a low priority requirement, or a "nice to have" feature, if time and cost allow it.
5	Future	This requirement is out of scope for this project, and has been included here for a possible future release.

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
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Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_1.1	User Registration	When the user clicks on the registration link, it should re-direct to registration form.	UI	Critical	NA	Req_1	
Req_1.2	User Registration	User needs to fill some of the basic attributes/fields as mentioned below in requirement: First Name, Last Name, Age, Gender, Contact Number, User Id, Password	UI	Critical	NA	Req_1	Please refer to Table 1.0 under References
Req_1.3	User Registration	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_1	
Req_1.4	User Registration	User failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_1	
Req_1.5	User Registration	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_1	
Req_1.6	User Registration	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	E	Medium	NA	Req_1	
Req_2.1	User Authentication	A registered user – is able to click 'Login' link, after keying in 'User ID' & 'Password' field and get his credentials authenticated with the existing database entry.	UI	Critical	NA	Req_2	
Req_2.2	User Authentication	A registered user – is unable to login and get the credentials authenticated, the user is presented with relevant error messages: Invalid User ID (or) Incorrect Password	UI	Critical	NA	Req_2	
Req_3.1	Searching for the product	On successful login of the user account, user should be able to search for products available in the stock.	F	Critical	NA	Req_3	
Req_3.2	Searching for the product	Ability of the portal to allow the user to sort the displayed items with below sort options: Sort by Name Sort by Popularity Sort by Availability Sort by Price	F	Critical	NA	Req_3	
Req_3.3	Searching for the product	On selecting the required product, system to display the exact location of the product to ease the customer in picking it.	F	Critical	NA	Req_3	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_4.1	Shop manager Registration	Portal to allow the Admin to create user accounts with Shop Manager privileges	F	Critical	NA	Req_4	
Req_4.2	Shop manager Registration	Admin needs to fill some of the basic attributes/fields as mentioned below in requirement to create new admin profile: First Name, Last Name, Age, Gender, Contact Number, User Id, Password	UI	Critical	NA	Req_4	Please refer to Table 1.0 under References
Req_4.3	Shop manager Registration	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_4	
Req_4.4	Shop manager Registration	Provide failing to provide information on the mandatory fields with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_4	
Req_4.5	Shop manager Registration	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_4	
Req_4.6	Shop manager Registration	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	E	Medium	NA	Req_4	
Req_4.7	Shop manager Registration	Shop manager registration will need approval from Super user.	F	Critical	NA	Req_4	
Req_4.8	Shop manager Registration	Super User should have a page to display all the registration request for Shop manager.	F	Critical	NA	Req_4	
Req_4.9	Shop manager Registration	Super user can approve or deny the request	F	Critical	NA	Req_4	
Req_4.9	Shop manager Registration	Upon approval, Shop manager should be able to login. If denied, it should display error message "Registration not approved."	F	Critical	NA	Req_4	
Req_5.1	Shop Manager Credential Authentication	A registered Shop manager – is able to click 'Login' link, after keying in 'User ID' & 'Password' field and get his credentials authenticated with the existing database entry.	UI	Critical	NA	Req_5	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_5.2	Shop Manager Credential Authentication	A registered Shop manager – is unable to login and get the credentials authenticated, the user is presented with relevant error messages: Invalid User ID (or) Incorrect Password	UI	Critical	NA	Req_5	
Req_6.1	Stock Management	When the shop manager Logs in with valid details he should be allowed to add/modify/delete or update the products in the inventory.	UI	Critical	NA	Req_6	
Req_6.2	Stock Management	Shop manager needs to fill the basic details of the product like product name, product image, number of items available, date of manufacturing date and date of expiry	UI	Critical	NA	Req_6	
Req_6.3	Stock Management	Clicking 'Submit' should validate the datatype constraints for each field and update the stock.	F	Critical	NA	Req_6	Please refer to Table 2.0 under References
Req_7.1	Add Product details	Shop manager on clicking Add Product, it should redirect to the Product Addition page	F	Critical	NA	Req_7	
Req_7.2	Add Product details	Shop Manager needs to fill some of the basic attributes/fields as mentioned below in requirement to create new Product: Product ID, Product Name, Brand, Type, Quantity type, Rate per Quantity, Stock Count	UI	Critical	NA	Req_7	Please refer to Table 2.0 under References
Req_7.3	Add Product details	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_7	
Req_7.4	Add Product details	Provide failing to provide information on the mandatory fields with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_7	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_7.5	Add Product details	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_7	
Req_7.6	Add Product details	Upon saving the information in the database, display the message, 'Your details are submitted successfully'.	E	Medium	NA	Req_7	
Req_8.1	Billing	Shop manager on clicking billing, should redirect to the billing page	F	Critical	NA	Req_8	
Req_8.2	Billing	On selecting the product type, the system should list the available items for that type	F	Critical	NA	Req_8	
Req_8.3	Billing	On selecting the item it should populate the rate and shop manager can enter the quantity	F	Critical	NA	Req_8	
Req_8.4	Billing	Option should be there for the shop Manager to enter the product code for billing	F	Critical	NA	Req_8	
Req_8.5	Billing	After entering all the items, system should sum up and display the total amount. The shop manager should update the customer phone number and tag the purchase to the customer.	F	Critical	NA	Req_8	
Req_8.6	Billing	Shop manager should complete the billing by clicking submit.	F	Critical	NA	Req_8	
Req_9.1	Update Stock	The system should deduct the count of the quantity billed from the total stock once billing is done.	F	Critical	NA	Req_9	
Req_10.1	Update Purchase history	Shop manager on clicking submit in Billing, should update the purchase history of the customer in the database	F	Critical	NA	Req_10	Please refer to Table 3.0 under References
Req_11.1	Update the Aisle and shelf details for the product	Shop manager on clicking Update Aisle / Shelf details, should display the product types available	F	Critical	NA	Req_11	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_11.2	Update the Aisle and shelf details for the product	Shop manager on clicking a product type, should display all the product under that type	F	Critical	NA	Req_11	
Req_11.3	Update the Aisle and shelf details for the product	Shop manager on clicking the Product code, should allow him to update the aisle and shelf details	F	Critical	NA	Req_11	Please refer to Table 2.0 under References
Req_11.4	Update the Aisle and shelf details for the product	On clicking Submit, should update the details in the DB. The system should have necessary validations for the required fields	F	Critical	NA	Req_11	
Req_12.1	Flash offers	When the user logs in, the system should flash the offers and deals for that day link	UI	Critical	NA	Req_12	
Req_12.2	Flash offers	On clicking the link, the system should display all the offers / deals available for that day. (Should display the deals / offers from DB matching to the current date)	F	Critical	NA	Req_12	
Req_12.3	Flash offers	On clicking the offer, it should display the details of the product – Discounted Rate / shelf, Aisle	UI	Critical	NA	Req_12	
Req_13.1	Update Offers / Deals	On clicking Update offers / deals link, Shop manager should be redirected to the Offers page	UI	Critical	NA	Req_13	
Req_13.2	Update Offers / Deals	Shop Manager needs to fill some of the basic attributes/fields as mentioned below in requirement : Offer Date, Product code, Discounted Rate, Offer	F	Critical	NA	Req_13	Please refer to Table 4.0 under References
Req_13.3	Update Offers / Deals	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_13	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_13.4	Update Offers / Deals	Provide failing to provide information on the mandatory fields with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	F	Critical	NA	Req_13	
Req_13.5	Update Offers / Deals	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_13	
Req_14.1	Purchase Points	Once the billing is completed, purchase points should be added to the Customer account based on the total amount of purchase.	F	Critical	NA	Req_14	Please refer to Table 3.0 under References
Req_15.1	Utilize purchase points on shopping	When the user clicks the Redeem point's link, it should redirect to the redemption page.	F	Critical	NA	Req_15	
Req_15.2	Utilize purchase points on shopping	Two options should be available. Redeem points with the product available or cash back	F	Critical	NA	Req_15	
Req_15.2	Utilize purchase points on shopping	Once the user selects the product, he will get a code displayed. Using that code he can get the product in the billing counter	F	Critical	NA	Req_15	
Req_15.3	Utilize purchase points on shopping	If Cash back is selected, the shop manager will deduct the amount from the bill.	F	Critical	NA	Req_15	
Req_15.4	Utilize purchase points on shopping	Shop manager on clicking Reward products link, should redirect to the page to update the Products for redemption	UI	Critical	NA	Req_15	
Req_15.5	Utilize purchase points on shopping	Once the User redeems the points, the points should be deducted from his Account.	F	Critical	NA	Req_15	
Req_16.1	New Products flash	Once the User Logs in, the new products should be flashed in the home page.	F	Critical	NA	Req_16	



Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Remarks
Req_16.2	New Products flash	Check the date when the Product was added to the system. Compare the system date and Date of addition. If it is less than or equal to 7, display it as new product.	F	Critical	NA	Req_16	
Req_17.1	Display Purchase History	User on clicking Purchase history, should display the purchase history	F	Critical	NA	Req_17	
Req_18.1	Recommend products	When the user logs in, the system should display recommend products based on the previous purchase / search	F	Critical	NA	Req_18	Please refer to Table 3.0 , 5.0 under Reference s
Req_19	Log off	When the user clicks Log off, the system should disconnect from the system.	F	Critical	NA	Req_19	
Req_20.1	Other validations	During registration, System should pop up three secret questions for Password recovery.	UI	Medium	NA	Req_20	
Req_20.2	Other validations	When the user clicks Forgot User ID, system should ask for the secret questions. On answering the questions correctly, the User ID should be displayed.	UI	Medium	NA	Req_20	Please refer to Table 1.0 under Reference s
Req_20.3	Other validations	When the user clicks Forgot Password, system should ask for the User ID and secret questions. On answering the questions correctly, the password reset page should be displayed.	UI	Medium	NA	Req_20	
Req_20.4	Other validations	On entering the details in the password reset page, password should be validated	F	Medium	NA	Req_20	
Req_20.5	Other validations	On clicking Submit, the details should be saved to the Database	F	Medium	NA	Req_20	

5.0 References

Note: Table details can be altered as required. Additional tables can be added if needed

5.1 Table 1.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
First Name	Text(50)	Alphabetic	Yes	

Last Name	Text(50)	Alphabetic	Yes	
Age	Numeric(2)	Numeric	Yes	
Gender	Drop Down	NA		Male, Female
Contact Number	Text(10)	Numeric	Yes	
User ID	Text(15)	Alphanumeric	Yes	
Password	Text(15)	Alphanumeric	Yes	
User Type	Text(1)	Alphabetic	Yes	A – Admin U – User
Status	Text(1)	Alphabetic	Yes	A – Approved D – Denied P - Pending (For User registration, Status should be A as default. For Shop manager it should be pending)
Secret Question 1	Text(50)	Alphabetic	Yes	
Secret Answer 1	Text(50)	Alphabetic	Yes	
Secret Question 2	Text(50)	Alphabetic	Yes	
Secret Answer 2	Text(50)	Alphabetic	Yes	
Secret Question 3	Text(50)	Alphabetic	Yes	
Secret Answer 3	Text(50)	Alphabetic	Yes	

5.2 Table 2.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Product Code	Text(50)	Alphabetic	Yes	
Product Name	Text(50)	Alphabetic	Yes	
Product Type	Numeric(2)	Numeric	Yes	
Brand	Text(50)	Alphabetic	Yes	
Quantity type	Text(10)	Numeric	No	
Rate per Quantity	Text(15)	Alphanumeric	Yes	
Stock count	Text(15)	Alphanumeric	Yes	
Add date	Date	Date	Yes	
Aisle	Text(15)	Alphanumeric	Yes	
Shelf	Text(15)	Alphanumeric	Yes	
Date of manufacture	Numeric(8)	Numeric	Yes	
Date of expiry	Numeric(8)	Numeric	Yes	
Product Image	Image files	JPEG, PNG, GIF	Yes	

5.3 Table 3.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Purchase Date	Date	Date	Yes	
User ID	Text(15)	Alphanumeric	Yes	



Product code1	Text(50)	Alphabetic	Yes	
Quantity1	Numeric(2)	Numeric	Yes	
Product code2	Text(50)	Alphabetic	Yes	
Quantity2	Numeric(2)	Numeric	Yes	
Product code3	Text(50)	Alphabetic	Yes	
Quantity3	Numeric(2)	Numeric	Yes	
Product code4	Text(50)	Alphabetic	Yes	
Quantity4	Numeric(2)	Numeric	Yes	
Product code5	Text(50)	Alphabetic	Yes	
Quantity5	Numeric(2)	Numeric	Yes	
Product code6	Text(50)	Alphabetic	Yes	
Quantity6	Numeric(2)	Numeric	Yes	
Product code7	Text(50)	Alphabetic	Yes	
Quantity7	Numeric(2)	Numeric	Yes	
Product code8	Text(50)	Alphabetic	Yes	
Quantity8	Numeric(2)	Numeric	Yes	
Product code9	Text(50)	Alphabetic	Yes	
Quantity9	Numeric(2)	Numeric	Yes	
Product code10	Text(50)	Alphabetic	Yes	
Quantity10	Numeric(2)	Numeric	Yes	
Total Amount	Numeric(10)	Numeric	Yes	
Reward points	Numeric(10)	Numeric	Yes	

5.4 Table 4.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Offer Date	Text(50)	Alphabetic	Yes	
Product code	Text(50)	Alphabetic	Yes	
Discounted Rate	Numeric(6)	Numeric	Yes	
Offer	Text(50)	Alphabetic	Yes	

5.5 Table 5.0

Field Name	Field Type	Data Type	Mandatory	Possible Values
Search date	Date	Date	Yes	
User ID	Text(15)	Alphanumeric	Yes	
Product code 1	Text(50)	Alphabetic	Yes	
Product code 2	Text(50)	Alphabetic	Yes	
Product code 3	Text(50)	Alphabetic	Yes	



Product code 4	Text(50)	Alphabetic	Yes	
Product code 5	Text(50)	Alphabetic	Yes	
Product code 6	Text(50)	Alphabetic	Yes	
Product code 7	Text(50)	Alphabetic	Yes	
Product code 8	Text(50)	Alphabetic	Yes	
Product code 9	Text(50)	Alphabetic	Yes	
Product code 10	Text(50)	Alphabetic	Yes	
Product code 11	Text(50)	Alphabetic	Yes	
Product code 12	Text(50)	Alphabetic	Yes	

5.6 Table 6.0

Feedback

Field Name	Field Type	Data Type	Mandatory	Possible Values
Assessment id	number	numeric	Yes	
Question 1	Text(200)	Alphabetic	Yes	
Question 2	Text(200)	Alphabetic	Yes	
Question 3	Text(200)	Alphabetic	Yes	
Question 4	Text(200)	Alphabetic	Yes	
Question 5	Text(200)	Alphabetic	Yes	
Question 6	Text(200)	Alphabetic	Yes	
Question 7	Text(200)	Alphabetic	Yes	
Question 8	Text(200)	Alphabetic	Yes	
Question 9	Text(200)	Alphabetic	Yes	
Question 10	Text(200)	Alphabetic	Yes	

5.7 Table 7.0

User Feedback

Field Name	Field Type	Data Type	Mandatory	Possible Values
User ID	Text(10)	Alphanumeric	Yes	
Assessment id	number	numeric	Yes	
Rating Que 1	Text(200)	Alphabetic	Yes	
Rating Que 2	Text(200)	Alphabetic	Yes	
Rating Que 3	Text(200)	Alphabetic	Yes	
Rating Que 4	Text(200)	Alphabetic	Yes	
Rating Que 5	Text(200)	Alphabetic	Yes	
Rating Que 6	Text(200)	Alphabetic	Yes	
Rating Que 7	Text(200)	Alphabetic	Yes	
Rating Que 8	Text(200)	Alphabetic	Yes	
Rating Que 9	Text(200)	Alphabetic	Yes	

Rating Que 10	Text(200)	Alphabetic	Yes	
Assessment date	Date	Date	Yes	

6.0 Terms and Conditions

GenC shall be solely responsible for all its acts and omissions under this program. GenC will comply at all times with all applicable laws. GenC shall not use Cognizant's name, logo and trademark in any promotional materials or other communications with third parties without the prior written consent of Cognizant. Any materials used by GenC in relation to program will not infringe the copyrights, trademarks, patents, trade secrets or other intellectual property rights, privacy or similar rights of any person or entity. GenC agrees not to post, draw, make, display any content that is threatening, libelous, obscene, defamatory, abusive, pornographic, or advocates/encourages any conduct that could constitute a criminal offence or give rise to any civil liability. Cognizant its associates' personal details including but not limited to name, address, contact number shall not be shared or forwarded to any third party, without prior written consent of Cognizant, its associates. All intellectual property provided by Cognizant as part of program shall be owned exclusively by Cognizant. Intern shall indemnify, defend and indemnify Cognizant its associates, officers, directors from and against any claims, demands, loss, damage, liability, causes of action, judgments, or costs and expenses of every nature (including attorney's fees and expenses) incurred by Cognizant based on any claim that any breach of terms and conditions of this program.

7.0 Change Log

Version Number	Changes Made			
V1.0.0	Initial baseline created on <dd-Mon-yy> by <Name of Author>			
Vx.y.z	<Please refer the configuration control tool / change item status form if the details of changes are maintained separately. If not, the template given below needs to be followed>			
	Section No.	Changed By	Effective Date	Changes Effected