



**DASHING THROUGH
THE SNOW**

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Dashing Through the Snow

Business Requirement Document

MCDA 5510(Software Development in Business Environment)

M.Sc. in Computing and Data Analytics

Saint Mary's University

Halifax, NS B3H 3C3, Canada

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Contents

1	Introduction	4
2	Purpose	4
3	Intended Audience.....	4
4	Intended Use.....	5
5	Project Scope	5
5.1	In Scope	5
5.2	Out of Scope	5
6	Definition and Acronyms	6
7	Project Description	7
7.1	User Needs	7
7.2	Assumptions, Dependencies and Constraints.....	7
8	System Features and Business Requirements	8
8.1	Functional Requirements	8
8.1.1	Signup.....	8
8.1.2	Login.....	8
8.1.3	Product List and category page	9
8.1.4	Cart.....	9
8.1.5	Payment Integration	9
8.2	Interface Requirements	10
8.2.1	User Interfaces.....	10
8.2.2	Hardware Interfaces	10
8.2.3	Software Interfaces.....	10
8.2.4	Communication Interfaces.....	10
8.3	System Features	10
8.4	Non-Functional Requirements	11
8.4.1	Performance Requirements.....	11
8.4.2	Security Requirements.....	11
8.4.3	Usability	11
9	Appendix	12



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List of Tables

Table 1 - Intended Audience	4
Table 2 - Definition and Acronyms	6
Table 3 - Assumptions, Dependencies and Constraints	7
Table 4 - Record of Changes	12
Table 5 - Approvals	12



1 Introduction

The purpose of this document is to describe the business requirement specifications for the project “Dashing through the Snow”. Detailed information on the scope, features, and functional and non-functional requirements of the application will be provided by this document. A BRD document is intended for the team members working on the application and the faculty who are stakeholders of the project determining what needs to be done and defining a solution starting point.

2 Purpose

An overview of the DTTS Application is presented in this document. This section will describe the product, its purpose and features, its reactions to external stimuli, and its limitations. In addition to serving as an information guide for the developers, this document also serves as a requirement validation document for people who may become prospective clients of the system. The proposed plan will also be submitted for approval to SMU's MCDA department.

Another purpose of this section is to provide information on the business drivers that cause the business to engage in projects such as Dashing through the snow.

- To promote at least 20 Local Business by enabling them to sell their products through our website.
- Ensuring Delivery of Products withing 24 hours of the orders being placed.
- Aim to achieve at least 80% Customer satisfaction per order.

3 Intended Audience

Role	Name
Team Member	Piyush
Team Member	Shiney
Team Member	Rashad
Stakeholder	Daniel Penny
Stakeholder	Neil Williams

Table 1 - Intended Audience



4 Intended Use

- Having some technical knowledge of the platforms and the usual jargon in the area of web application development is assumed among the audience.
- As it specifies the interrelationships between the various requirements, it can be used by system analysts and requirements analysts.
- These requirements must be implemented by developers and programmers.
- These requirements must be met by the testers.

5 Project Scope

5.1 In Scope

The following areas are in scope for this project:

- An Admin page
- A User Login page (Sign In and Registration)
- Cart Page
- Payment gateway capable of storing card information for future purchases
- A Database to store inventory and user details

5.2 Out of Scope

The following areas are out of scope for this project:

- We do not have a page catering to vendors.



6 Definition and Acronyms

Abbreviation	Description
BRD	System Requirements Specification
DTTS	Dashing through the Snow
BRD	System Requirements Specification
ASP	Active Server Pages
SQL	Structured Query Language
CVV	Card Verification Value
PDF	Portable Document Format
HTTPS	Hypertext Transfer Protocol Secure

Table 2 - Definition and Acronyms



7 Project Description

7.1 User Needs

December is usually the time when people tend to decorate their houses with colorful lights and bright ornaments, bring out the hot chocolate, the warm fuzzy blankets and binge watch Christmas movies with their families while their pets doze away contentedly at their feet. However, Canadian Winters are known to be quite harsh, and people don't like to venture out unless necessary.

- Information about the user, such as their name, address, email and password.
- The products they wish to add to their cart.
- Information about credit cards or debit cards used for payments.
- Simple web applications should be easy to use for users with enough technical expertise.
- English language proficiency is required.

7.2 Assumptions, Dependencies and Constraints

Constraints	<ul style="list-style-type: none">• Due to unforeseen circumstances, some deliverables might get delayed.• Due to Scope Creep, Our Deliverables will not match the original requirements.
Assumptions	<ul style="list-style-type: none">• We have enough stock to last the winter.• We do not face issues during delivery.• We have the necessary security measures in place for the payment gateway.
Risks and Dependencies	<ul style="list-style-type: none">• Delivery may not be on time due to severe weather conditions.• Azure subscription could run out before we complete the project.

Table 3 - Assumptions, Dependencies and Constraints



8 System Features and Business Requirements

8.1 Functional Requirements

8.1.1 Signup

The application should allow users to sign up using their email addresses and choose new password and to confirm.

Sequence of responses:

- Click on "Register" once to register.
- After submitting their email address and username, the user is prompted to log in. Passwords must also be entered securely.
- In addition, the user is redirected back to the main page upon clicking submit.
- Users' email addresses and credentials are then saved in the database for future logins.

8.1.2 Login

An email address and password should be required for the user to login, as well as social media authentication

Sequence of responses

- Login must be clicked by the user.
- Usernames and passwords are required after the user enters their user ID/email.
- Clicking on submit is the next step.
- The user is directed to the main page after successfully authenticating using the user ID and password combination.
- If not, an "Incorrect user ID/ password" message is prompted



8.1.3 Product List and category page

User must be able to select desired product and add them to cart

Sequence of responses

- When a user lands on a Product Category page, it will select the appropriate category for him or her
- The product can then be selected after the desired category has been selected and added to cart.

8.1.4 Cart

List of products added to cart by user must be displayed

Sequence of response

- After adding products to cart the products must be displayed on the cart page.
- A calculation of the total amount should be performed by the application
- Later proceed to checkout should be clicked for payment to occur

8.1.5 Payment Integration

A calculation of the total amount should be performed by the application, and the user should be directed to the payment page so they can make the online payment.

Sequence of responses

- A payment option is available once the user has reviewed their order.
- Users are directed to the payment page when they click on this button.
- In the next step, the user is asked to choose between a debit or credit card payment
- Users are prompted to enter their card information when they select either a credit or debit card.
- A standard credit/debit card includes information such as the card number, expiration date, and CVV code.
- Bookings are confirmed with the authorization of payment



8.2 Interface Requirements

8.2.1 User Interfaces

The DTTS UI should make it obvious to the user which section they are currently viewing by using visual cues such as bold fonts, arrows, and highlights. Any page of the DTTS should contain links to the application's major sections. It is important to maintain a consistent visual theme throughout all pages.

8.2.2 Hardware Interfaces

There must be servers of server-class on which all server-side components execute. Workstations and personal computers are essential for executing client-side components.

8.2.3 Software Interfaces

C# backend framework.
Angular web development framework.
Azure Cloud and MSSQL.

8.2.4 Communication Interfaces

The application's communication interfaces must follow the client-server model. The communication between the client and the server must be over a secure HTTP (HTTPS) connection.

8.3 System Features

- In the DTTS, you will be able to order Christmas theme decor via a web browser.
- DTTS users can register and login to the website to access the service.
- A user can search, sort, filter, and order Christmas theme decor according to their preferences.
- Based on the number of items, the application calculates an amount.
- It is possible for users to view their order history.
- Personal and payment information can be entered and saved by users.



8.4 Non-Functional Requirements

8.4.1 Performance Requirements

The DTTS must provide requesting clients with search results as soon as possible. In order to improve response time, industry-recommended techniques must be used. For storage, memory, and processor performance to be minimized, industry recommended practices should be followed. A backup version of the database should be available in the event of a failure. In the case of a failed payment, the payment should be returned.

8.4.2 Security Requirements

It is important to follow the principle of least privilege when defining access-level needs for software systems and their associated services. User information such as payments and credit cards should be stored securely. Data related to customers should only be saved according to the terms and conditions agreed to by the customer.

8.4.3 Usability

In order to create a great UX and UI, you need to analyze the results of the customer survey and follow the latest industry guidelines.



9 Appendix

Appendix A: Record of Changes

Version Number	Date	Author/A#	Description of Change
1.0	11/27/2022	Rashad Ahmed Imtiaz/A00466845	First version of the DTTS system. The document review was done by the team members and all the comments are incorporated.

Table 4 - Record of Changes

Appendix B: Approvals

The undersigned acknowledge that they have reviewed the BRD and agree with the information presented within this document. Changes to this BRD will be coordinated with and approved by the undersigned, or their designated representatives.

Document Approved By	Date Approved
Piyush Priyam, Team Member	26/11/2022
Shiney Prabhakar, Team Member	26/11/2022

Table 5 - Approvals