Software Engineering and Testing. BSC Year 2, 2020/2021
(Assignment 2 -   20%)

Assessment 2: Requirements Document

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Declaration

I herby certify that this material, which I now submit for assessment on the programme of study leading to the award of Ordinary Degree in Computing in the Institute of Technology Blanchardstown, is entirely my own work except where otherwise stated.

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Title

Tailored Suits Blanchardstown Online Store (Online tailored suit site).

Client

Paul Duffy

Tailored Suits Blanchardstown.

1. Project Overview

The project definition:

- The project involves developing and testing a website for a suit company.
- The website will allow users to search for specific brands of suits, log in, browse categories of suits, and add items to their basket.
- Main components will be a search bar, customer sign up/in area, shopping basket and a navigation bar.
- The website will be used mainly by businessmen looking for suits or men looking for suits for occasions.

2. Document Revision

1.0 (09/02/24)   – Need to make 5 and 6 made

2.0 (15/02/24)   – Made 5 and 6; Need to make conclusions for rev 2.5

2.5(16/02/24)   -Made 8; need to review and finish 8 for 3.0(FINAL)

3.0(18/02/24)   -Reviewed by all partners and any changes needed have been finalised .

3. Scope

The desired functionality is as follows; we intend to include the following:

- Search bar area, to allow the user to search for specific brands of suit without having to scroll through pages to find the suit.
- Customer log in area, the customer will be able to log in and if they are a first-time customer, they will be offered a measuring kit with they're first order.

- There will also be a navigation bar with categories of suits for customers who aren't sure and just want to browse.
- A shopping basket will be present on all pages to allow the user to view any items added and remove any items added if necessary.
- When signing up user will get brought to a sign-up page initially and asked if they have an account already, if so, they will be brought to another page for sign-in

  We were looking to add more functionality, however the functionality we have included will make the website work fully for the customer and user side. Some of the functionality we were going to introduce but decided holding back on were as follows.

- We were going to add in a sign in bonus but decided against it as this is an organizational decision rather than a programmer.
- We were going to display a video of how to measure yourself on the pages with tailored suits, however decided against this and came up with a home solution, a package containing a leaflet with instructions, measuring tape and photos on the leaflet to fully explain what measurements are needed and where. We now just need input in five places for measurements.
- We didn't implement reviews as the review wouldn't be accurate due to the nature of the business (Tailor).

4. Walkthrough Scenarios

People that are going to interact with the website will be customers of our client, these customers mainly being business men and men looking for a suit for any occasion, weddings, debs suits , communion , confirmation and many more.

There will be two main ways of using the website; the tailored 'side' of the website and untailored 'side' of the website; to use the tailored 'side' of the site you must purchase or own a 'fitting kit' and have taken the necessary measurements, which then will be inputted into the website and the company tailors will make the suit based off these measurements.

For the non-tailored 'side' it will be slightly easier there is generic sizes along with generic fits (slim fit, wide fit, long fit, etc), all the users must do is base their fit off the given images of body sizes:
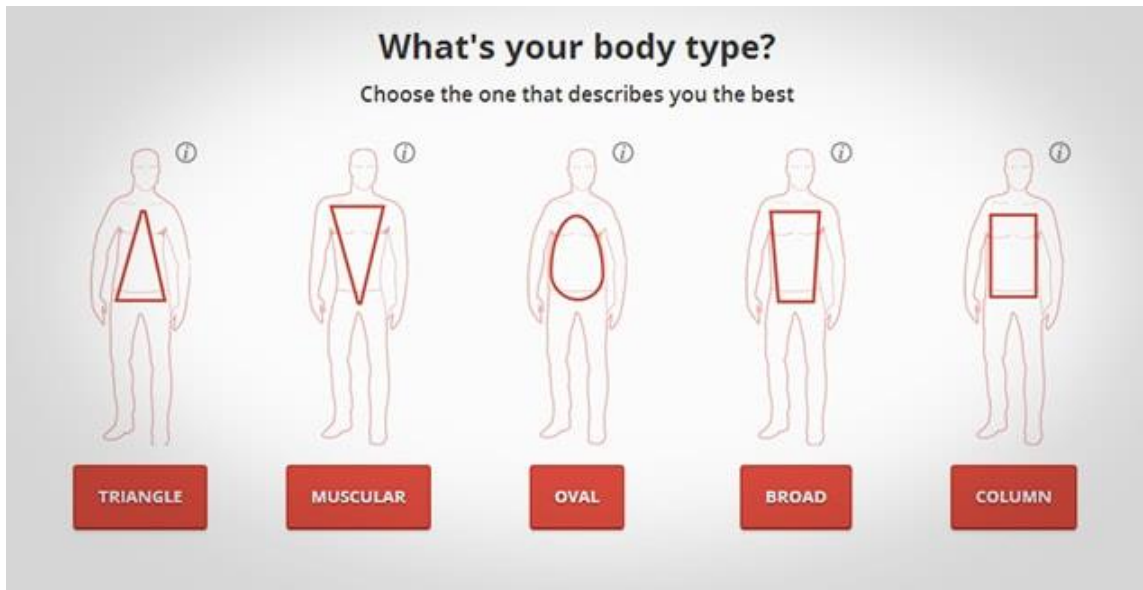
(JoeButton.com, 2024)

Once they have chosen their suit, they will choose a generic size then towards the end of the page they will choose their body shape and the tailors/employees will choose the suit based on the given info.

5. Software Requirements Analysis:

Functional Requirements:
These are statements of services the system should provide – how the system should react to particular inputs and how it should behave in particular situations. Explicitly state what the system should do. Every major scenario should be represented by a use case. Diagrams are encouraged. UML Use case diagrams, Use case specifications (as legible screen dumps, typed listings or activity diagrams)

Can approach them from a *user* and *system* point of view.
User – high level abstract requirements, readable by someone with no detailed technical knowledge.
System – detailed description of what the system should do. Targeted at technical staff and project managers…
e.g.

5.1 User Requirements

- **Functional Requirements**
    - o Customers should be able to access the website by searching in on the Internet from a laptop or computer or mobile device.
    - o If you would like to make a tailored suit there should be some instruction on how to input the measurements in properly.
    - o Customers should be able to input their measurements manually or by using interactive tools such as a slider bar.

- **User Interface Requirements**
    - o The User interface should be intuitive and user-friendly.
    - o The website should be accessible on different screen sizes such as a laptop, Desktop, Tablet and smartphone.

- **Performance Requirements**
    - o The website should load quickly and respond promptly to user interactions.
    - o The website should be able to handle high levels of traffic without going down.

- **Usability Requirements**
    - o When a customer is using the website, it should be straightforward.
    - o The nav bar and search bar should be able to be found with ease.
    - o Once the nav bar is clicked it should show clear indicators to either regular suits or tailored suits.
    - o Once one is clicked it should bring you to the tailored suit or regular suit page.
    - o If the customer is buying a tailored suit the measurements should be easy and straightforward to insert.
    - o Once satisfied with the suit you should be able to insert it into your basket.
    - o When you are ready to pay the customer can either login or register.
    - o Once all is completed the Customer can now purchase their new top quality tailored suit from the comfort of their own home.
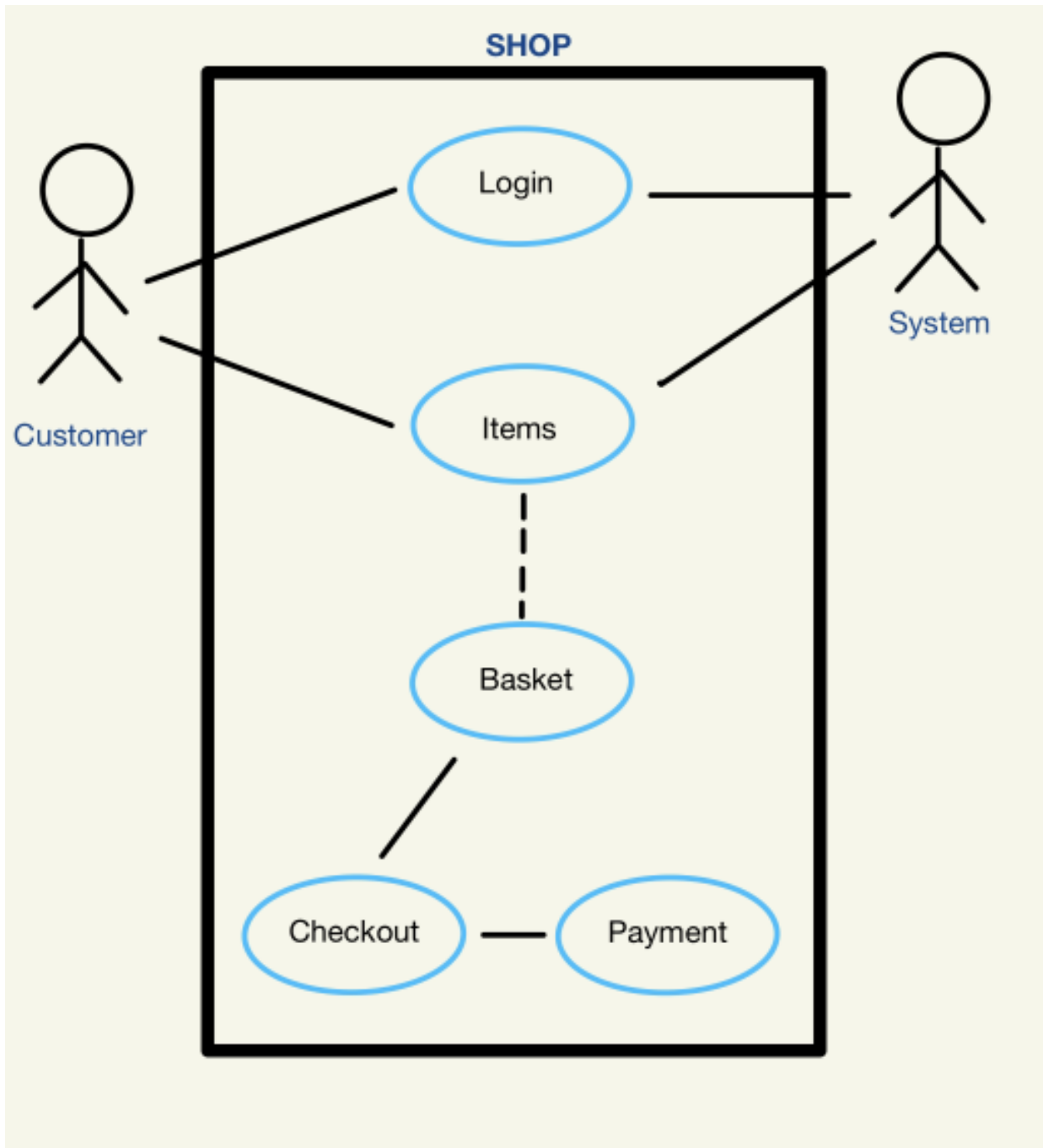
5.2 System Requirements

5.2.2 Use Case Specification

Login:	- On initial log in customers are brought to a page to register where they are asked for their First name, Last name ,D.O.B , Email, Phone number , Address. - Once the Customers have entered these details they will be asked to enter their card details for the ability to be able to pay with ease when paying. The customers only have to input these details if the want to it is not necessary. - If the customer already has an account they will just be asked for an email and password as their details are already stored in a database. - Authentication request gets sent to the database to confirm customer details - Authentication verified. - Purchase history for logged in customers gets stored in the database
Shipping + basket:	- When the customer selects "Add to Basket" on an item it will then be added to their basket. - When an item is placed into the basket the basket will show a picture of the item with its price and quantity. - The customer will also have the ability to delete the item from the basket by pressing on the thrash icon. - Once the customer would like to pay they can click on the "Pay Now" button. - Once the customer clicks the "Pay Now" button they will be directed to the shipping page which will consist of their name, email, phone number and address. - The customer will be able to use their saved data from when they registered or they can change it to another address.

Home Kit + Measurements:	- When a customer clicks onto the "tailored suits" option on the home page or in the nav bar, they will be directed to the tailored suits page which will allow them to browse all of our different kinds of tailored suits. - On tailored suits page, pop up menu shows for a home measurement kit.
	If No
	    Prompt to buy measuring kit.
	Else
	    Return to tailored store.

	• Once the customer is happy with the colour of the suit they will then click onto the suit.
	• Once the suit is clicked it will go onto the page where you can select your size.
	• Using the measurements you have taken using our home measurement kit you can chose your different sizes these are:
	    ➢ Chest circumference
	    ➢ Neck circumference
	    ➢ Shoulder length
	    ➢ Bicep circumference
	    ➢ Back Length
	    ➢ Waist line
	    ➢ Inside leg
	    ➢ Leg Length
	
	• Once you have inputted all your measurements you can then add it to your basket.

Stores (Not Tailored):	• Store to shopping basket if put to basket. • ONLY has Small, Medium, Large. • Refine search/filter to select different body types (radio) • Refine search/filter to select colours (checkbox) • Once the customer clicks onto the "Suit" page either from the home page or the nav bar it redirects them to our non-tailored suit page. • Once in this page the customer can browse the range of Branded suits either using the filter option or by just going through the catalogue. • Once the customer is happy with the suit they can click on the suit and it will bring them to be able to select their size. • The sizes on the website will be small(S), medium(M) and Large(L). • Once the size has been clicked you can then add it to your basket.

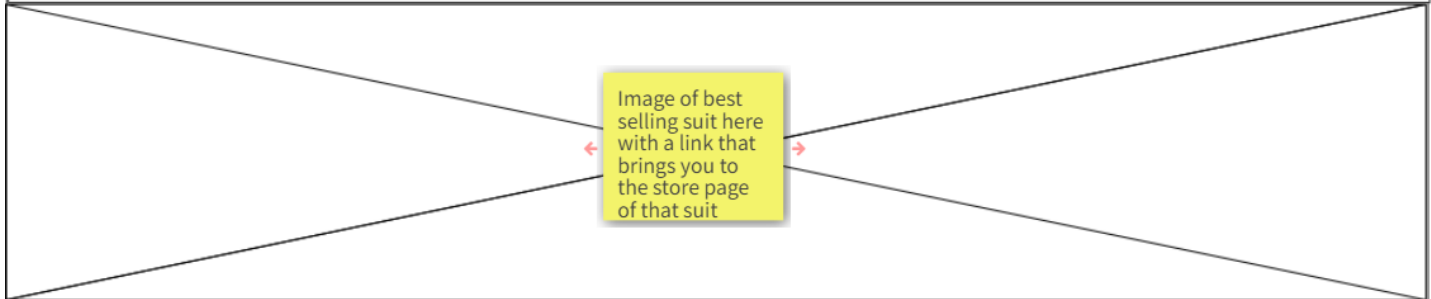### **5.3 Non-functional Requirements:**

These are constraints on the service or functions offered by the system e.g. timing constraints

- Need images of suits.
- Need a gallery to display images for the suits.
- User must know how to shop online.
- User can make a profile to store previously entered data, give the user minimal work.

6. Graphical User Interface Design

➢ Home Design
Implement a responsive navigated web design with the home page greeting people with 3 choices:
- Best Sellers
- Custom Tailoring
- Store

➢ Browsing design
The design of the browse can be a 3 column / 1 column scroll down with a filter of suit components on the side / top.

➢ Logging in/signing up Design
User login/sign up should implement as sliding interface that will allow the user to switch between signing up or logging in with ease.

➢ Nav Bar
Nav bar should have sub nav bars in them.

➢ Shopping Cart
Shopping cart must have the ability to remove orders from them and have the price of each of the suits/suit components. The shopping cart should also include the total price of the purchase.

➢ Shipping design
The Shipping page should have a form that will include the customer's name, email, address and Eircode.

There are wireframes of the home and store page included to start to give an idea of how the website will look and feel, see the next page.

Home   Store   Our Brands   Sale   🔍 SEARCH   LOGIN   Register NOW

Image of best selling suit here with a link that brings you to the store page of that suit

- Tailored Suits

- General Suits

- Special Offers

Home   Store   Our Brands   Sale   🔍 SEARCH   LOGIN   Register NOW

Filters:

▼ Size
○ Radio 1
○ Radio 2

▼ Brand
☐ Checkbox 1
☐ Checkbox 2

▼ Color
☐ Checkbox 1
☐ Checkbox 2

▼ Fit
○ Radio 1
○ Radio 2

Price: $3500   Price: $3500   Price: $3500

Price: $3500   Price: $3500   Price: $3500

7. Technical Requirements and Feasibility:

This product will be designed using UML diagrams, for the methodology we are using the AGILE method because it allows us to break the project into phases and emphasize collaboration and enables us to gather feedback early and often. Our team will follow a cycle of planning, executing, and evaluating. We do this through our weekly Scrum meeting.
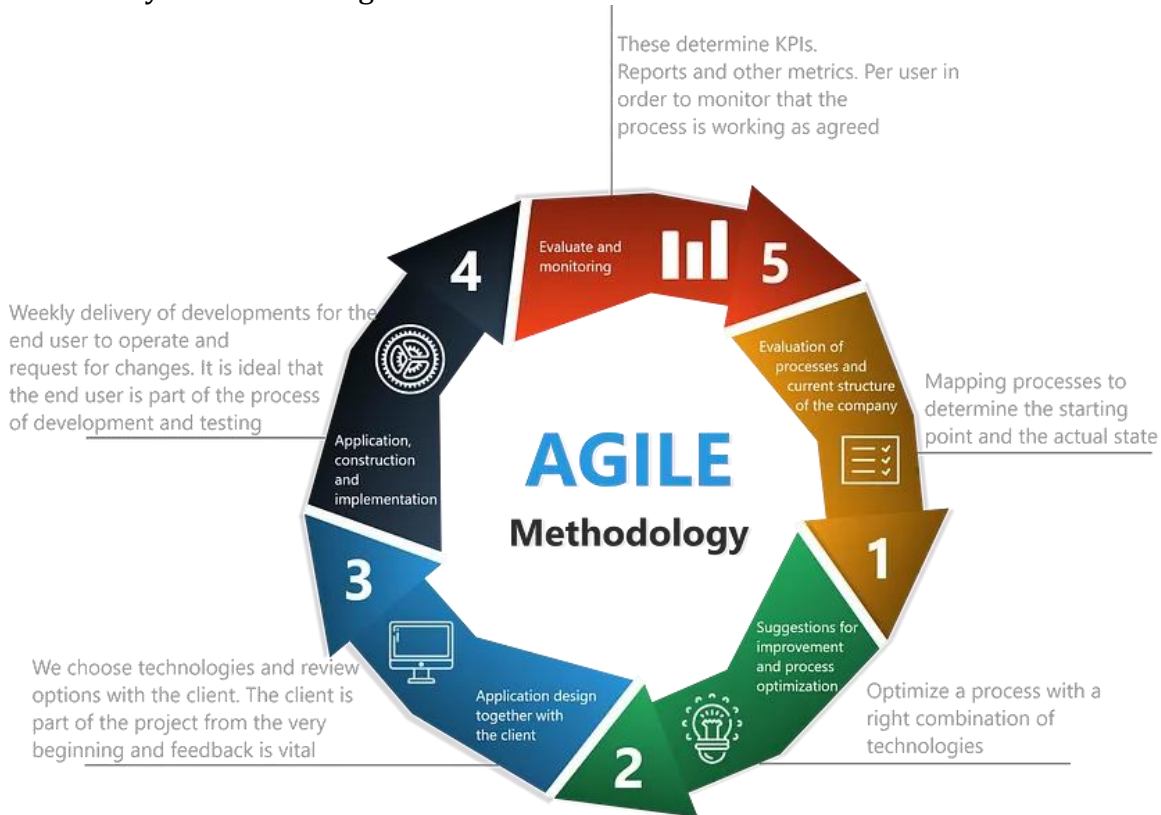
(Medium.com, 2024)

It will be written in multiple languages including PHP, SQL, CSS, JavaScript and HTML.

- PHP: Chosen as the primary language as it is a widely used general purpose scripting language, PHP also facilitates the communication to our chosen database. PHP is an interpreted language, which means it is executed line by line rather than compiled, this allows for quick debugging.
- SQL: Used for interacting with (storing and receiving data) and creating databases. Crucial for storage of website data.
- CSS: Used for styling the website and making it look appealing.
- HTML: Works hand in hand with CSS and JavaScript to create the webpage.
- JavaScript: Adds interactivity to the website and dynamic behaviour.

Development Language:

PHP has been chosen primarily due to its versatility in web development. One of the main advantages of PHP is its compatibility on various operating systems so long as PHP is installed it doesn't matter if its Windows, Mac Linux, or mobile devices.
For development we will be using Visual Studio Code IDE as it provides plenty of features to help with PHP development, such as code completion, debugging tools and highlighting syntax errors.

Persistent Storage:

MYSQL will be used for storage of any areas necessary on the website.
Our website will connect with the SQL database through PHP, we will be able to query the database using PHP and return data to the website. This interaction will help with retrieval and displaying information about the website and products.

Interface & Software / Hardware APIs:

This Programme will utilize the languages mentioned above to create a user-friendly interface and an easy-to-use design, we will also incorporate the fact users may be viewing the site on different size screens and adjust the design accordingly. For the API's we will be using a log in function to allow the user to log in, so they don't have to re-enter information.

8. Conclusion

In conclusion, the report shows a well-planned roadmap for the project.

The chosen methodology (Agile) provides a structured guide for development of the project. The selection of chosen development languages to be used provides a solid foundation for building a dynamic and responsive website with minimal learning curve and consistency across webpages. The emphasis on usability and consistency adheres to the users expectations.

By following the outlined roadmap the website will become a valuable asset for the company, building an online presence and competing with other companies.