Software Engineering and Testing

Assessment 1: Project Proposal

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Submission date

11/02/2024

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).

Introduction
We will create an online suit shop for you to handle the ever-growing market competition. This shop needs to be user friendly, and the suits need to accommodate for different body sizes and body shapes. A database will be made to store customer details for our online shop. Customers will receive an email generated receipt that will confirm their purchase and customer feedback will be provided to take suggestions for changes.

An Apache web server will be used to interpret the PHP code. For this, Laragon and MAMP will be used to provide the Apache web server. MySQL will be the main scripting language used to create the database as it allows for relational database as opposed to a non-relational database. The mentioned services are also open source and free.

Motivation
- We want to get ahead of the competition and increase our sales using online shopping and stick out to target audiences.
- Expand influence on the tailoring industry and increase sales and commercial growth.
- More availability: An online shop is open 24/7 whereas a physical shop is open 5-7 days a week 8-12 hours a day.
- Expanding reach.
- Easier for customers.
- Remove the need for getting tailored at a shop.

Goals
- Create an online shop that's well-structured and easy to navigate.
- Create a secure database that will take in customer details.
- Create purchase confirmation.
- Create customer feedback.
- Establish a monopoly on the tailoring industry with the use of home measuring kits.

Client
- Tailored Suits Blanchardstown.
- Paul Duffy.

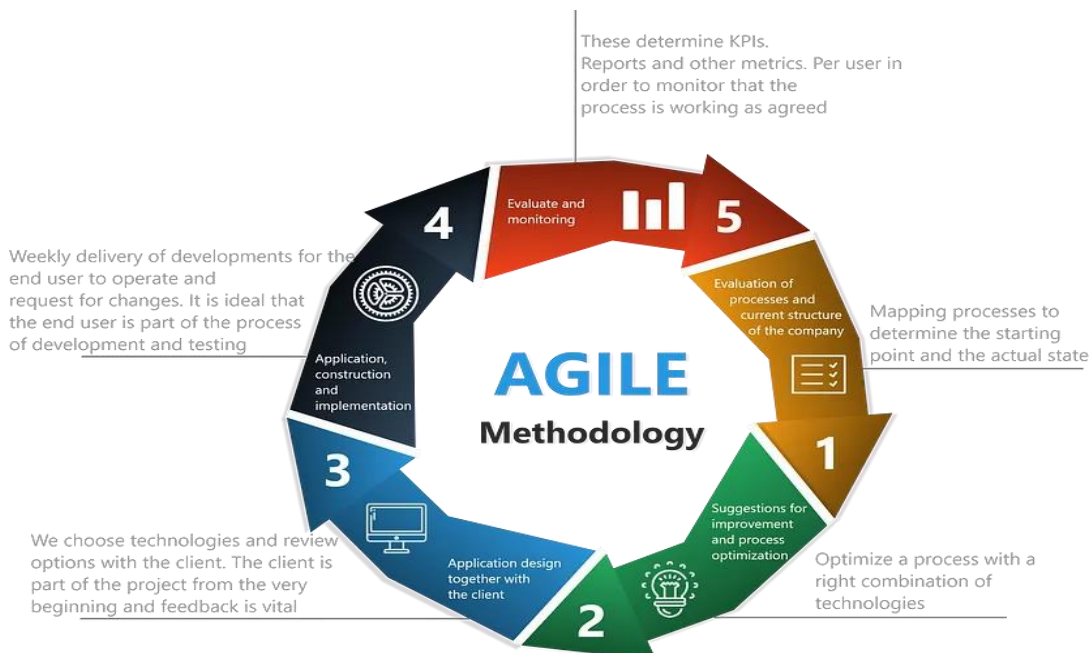## The Project

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, get their own tailored suits by inputting their own body type and body measurements for the suit, 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.
- The web

Project Value and Benefits

The clients of Tailored Suits Blanchardstown will use the website and any other customers looking for high quality tailored suits. Customers will benefit from the website, having access to the shop at comfort of their own homes whilst having the ability to order a home measure kit for when they, for whatever reason, cannot get their selves measured. Customers will enjoy easy navigation and a user-friendly interface designed to make it an enjoyable and easy experience.

Technical Requirements

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 meetings.

(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: For dynamic and web responsive viewing.

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.
MySQL is our choice for database as it is a relational DBMS that will allow for easier calls on more sophisticated queries.
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.
We will be using an Apache Web Server to deploy our website on to a localhost.
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.