

COM 1001 Introduction to Software Engineering

Group Assignment 1: Requirements

Group 31

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Scope of the project

The purpose of this project is to create the foundations for a system that can be integrated into a pizza delivery service. Twitter will be intertwined with the created system and requirements of the software product will be determined by clients - as explained in this document. An Agile approach will be used. The finished piece of software ought to be an efficient system, that allows users to order pizza via their twitter account.

Stakeholders

- **Customer** - customers expect products that meet that requirements, therefore they have a vested interest in the company.
- **Company** - includes workers, managers, and the owner. The owner has the largest share in the business, hence he has the biggest stake. Managers and employees, are concerned with their salary from the enterprise, meaning they also have some stake in the company.
- **Investors** - organisations like banks. Banks may grant loans to the company, an investment in which they hope to see returned via interest.
- **Suppliers** - entities that provide products necessary for the business, rely on the company's demand for a constant flow of goods.

Key

The estimated effort is on a quantitative scale of 0-5, where 0 is the least amount of effort required, and 5 is the highest.

Client priority is on a qualitative scale; 'Low' represents the lowest amount of priority, 'Medium' is the middle measurement and 'High', represents the most amount of priority. By client priority, it is meant that some actions are considered more important to the user than others.

User stories

* The user stories are arranged according to the client priority

User / Customer:

- As a new or existing customer, I would like to sign in via Twitter, so that the I can connect to the website and order pizza.
 - When I enter the correct username and password, I will log in to the website - this will be authorised by twitter.
 - When I enter an incorrect username or password, I won't be able to log in.

- If I enter incorrect login details too many times, I will be locked out for a certain amount of time. A link to reset my password, as provided by Twitter, will be available on the page.
 - The client priority is **high** - without signing into twitter, the user cannot communicate with the admin or even place an order. Requires an estimated effort: **3**.
- As a new customer, I would like to provide my address, so the admin can know where to send my pizza.
 - When connecting with the system for the first time, I will be prompted to enter my address details.
 - If I enter wrong address details, I will have the option to edit their address at any point.
 - If the postcode given does not exist, i.e. in an incorrect format, an error message will notify me.
 - If the address given, is more than 2 miles from the store, I will be notified that the distance is too great for delivery.
 - The client priority is **high** - without an address, the admin cannot send the order to the customer. Requires an estimated effort: **0** - the target clientele will have no difficulty entering address details.
- As a new customer, I would like to view the menu before signing in, so that I can know what products are provided.
 - All the products on the menu are the same for both registered user and unregistered user.
 - Unregistered users will be able to view the promotion section too.
 - Details of the product will be shown below the image.
 - The client priority is **high**, the user can view the menu at any time during the ordering process. The estimated effort is **0**.
- As a customer, I would like to place my order using tweets as it is a convenient way to order food.
 - If the order information is incomplete, I will be asked by the admin to add more information through a new tweet.
 - If the order information is complete, the admin will ask for my confirmation of the order.
 - The client priority is **high**, as the premise of the company is to take orders through tweets. The estimated effort is **2**.
- As a customer, I would like to receive confirmation from the admin so that I know that they have received my order.

- I will receive a response in a tweet from the admin when an order information is complete and the admin will ask for my confirmation.
 - If I do not receive a confirmation, there are ways to communicate with the company to ensure a confirmation, e.g. tweeting an admin
 - The client priority is **high**, the user must know that the order has gone through. The estimated effort is **1**.
- As a new customer, I would like to provide my phone number, so the admin can call me.
 - When connecting with the system through authorisation the system can obtain the phone number through Twitter.
 - If I do not have a phone number registered to Twitter, I will be prompted to register one.
 - If the phone number is incorrect or outside of the UK, the system will notify me.
 - The client priority is **medium**, as the admin can still communicate with the user via Twitter. The estimated effort is **0** - the user will usually have their phone number linked to the Twitter account.
- As an existing customer, I would like to view the special offers in my account after I have signed in so that I can use them in the next order.
 - Each special offer can only be used once, it will be removed from the system after use.
 - Special offers are given to certain users only, which depend on their order frequency or purchase value.
 - The client priority is **medium**, and the estimated effort is **2**.
- As a customer, I would like to choose delivery or collection in store so that it suits my needs.
 - I will be prompted to choose delivery or in-store collection as part of my order.
 - If I do not specify delivery or collection in my order, I will be asked by the admin to provide it.
 - The client priority is **medium**. The estimated effort is **2**.
- As a customer, I would like to change my order before confirmation, in case I prefer other options.
 - I can edit my order, in the same way I chose it by tweeting it again before confirmation.
 - The admin will tweet to the user to confirm their changes before confirmation of the order.
 - After confirmation, I will not be able to modify the order .

- The client priority is **medium**, as it is essential that the customers are pleased. The estimated effort **2**.
- As a new or existing customer, I will be prompted to confirm and/or edit my phone and address details, in case that they are incorrect.
 - After registering, a message will be displayed, and I can choose to edit my details.
 - The same error messages that apply to registering phone and address details will occur.
 - The client priority is **low**, incorrect details can always be solved via communication over twitter. The estimated effort is **1**.
- As a customer, I would like to check the opening times of the store, so that I can know what times they will be providing the service.
 - Details relating to the stores opening times will be available when I view the store's website.
 - I can manually search for the store's opening times, by typing in the 'help' search bar, located on the website.
 - The client priority is **low**, if the user is unaware of the store operation hours, they may not receive a response from the admin when they tweet their order. The estimated effort is **0**.
- As a customer, I would like to view the address of the store on the website home page, so that I know where to collect my order if I choose for collection
 - The address will be shown on the home page, and on every footer of every page.
 - The client priority is **low**, and the estimated effort is **0**.
- As a customer, I would like to order pizza as shown on the menu or customize my own.
 - When I order the pizza, I can choose to have the standard pizza instead of a customised one.
 - If I don't want to have a standard pizza, they can customize the pizza with additional add-ons or toppings.
 - The client priority is **low**, the user has control over what they are eating. The estimated effort is **3**.

Admin & Manager:

- As an admin, I would like to receive orders through Twitter's tweets so that customers can place their order more easily.
 - I can respond to an order quickly when it is tweeted by a customer.
 - I can review the order history of a customer easily.
 - The client priority is **high**, and the estimated effort **3**.
- As an admin, I would like to tweet back to the customer if their order information is incomplete to ensure that the order is exactly what the customer wants.
 - I can view every tweet and check if the orders are existed on the menu, or check whether there are any missing information.
 - If the order information is complete, I am able to send them a confirmation tweet and proceed to next step.
 - The client priority is **high**, as the store cannot start making the food unless the order is completed. The estimated effort is **3**.
- As an admin, I would like to confirm with the customer about any suspected food allergies, so that I can exclude those ingredients from the food.
 - Verify if any of the customer orders contain any food allergies, if there is a clear reason to, e.g. user types 'no egg' and then deletes it after.
 - Tweet the user if they would want to change their orders, based on their allergy information.
 - If the orders do not contain any ingredients the customer is allergic to, or the customer does not have any food allergies, the problem is resolved.
 - The client priority is **high**, as the allergy problem can be serious, and the estimated effort is **3**.
- As an admin, I would like to send a confirmation tweet to the user, so that the customer can know their orders have been placed.
 - Verify that the user has confirmed with the admin before sending the confirmation tweet.
 - If the order is not yet confirmed, the admin needs to ask for the user confirmation.
 - The user cannot change the order once it has been confirmed.
 - The client priority is **high**, as the store must receive the complete order in order to start making the food. The estimated effort is **2**.
- As an admin, I would like to create a new order in the system after the user has confirmed, as the store can only start preparing after receiving the confirmation.
 - Verify that the store is able to receive the new order created.
 - The client priority is **high**, and the estimated effort is **2**.

- As an admin, I would like to follow users that are interested in our products, so that we can increase our customer base.
 - If a user's interests are pizza-related, this specific user will be followed.
 - if a user asks something related to our business, this specific user will be followed.
 - The client priority is **medium**, and the estimated effort is **2**.
- As an admin, I would like to unfollow or block users who spam tweets so that our Twitter page looks professional.
 - If someone keeps tweeting irrelevant tweets to business, I will unfollow them.
 - If the user is not followed by the admin, I will block him/her.
 - The client priority is **medium**, the estimated effort **1**.
- As an admin, I would like to group users according to their loyalty so that it will be easier for me apply the special offers.
 - Group long-term and frequent customers together.
 - Group inactive and spamming users together before unfollowing them.
 - The client priority is **medium**, the estimated effort **1**.
- As a website admin, I would like to create items to the menu, so the customers can know our latest products.
 - If new items are available they can be added to the menu.
 - Verify that the admin can create items and publish it to the menu.
 - Check that every product available is visible on the website menu.
 - The client priority is **medium**, and the estimated effort **3**.
- As a website admin, I would like to edit items in the menu, so the customers can know about new offers.
 - If the price of a product has changed, I am able to edit it.
 - The client priority is **medium**, the estimated effort **3**.
- As a website admin, I would like to remove items from the menu, so that customers can have the most updated menu.
 - For some unpopular or discontinued products, I can remove them from the menu.
 - The client priority is **medium**, and the estimated effort **2**.
- As a website admin, I would like to add promotions to the menu so that any customer is informed about any of them.

- Include a promotion section on the website to show the most up to date promotions by the company.
 - The marketing manager will be tweeting the promotions frequently to notify the customers.
 - The client priority is **medium**, and the estimated effort **3**.
- As a marketing manager, I would like to edit promotions in the menu if the sales statistics were not good since release so that the customers will be attracted.
 - Lower the price or make bundled promotion of certain products.
 - The client priority is **medium**, and the estimated effort is **2**.
- As an admin, I would like to add special offers to specific customers only so that they would keep ordering from us.
 - Any customer who is not eligible for any special offer will not be able to view that section.
 - Special offer section is different for every customer.
 - The client priority is **medium**, and the estimated effort **3**.
- As an admin, I would like to modify special offers on user account so that user can view the special offers through their account.
 - For the customers who order frequently , admin can provide special offers to them.
 - If a customer's purchase reaches a certain amount, there will be a special discount.
 - The client priority is **medium**, and the estimated effort **3**.
- As a marketing manager, I would like to view the sales statistics so that I can know which products are the most popular.
 - For the least popular products, promotions will be held to promote the products to have better sales.
 - The least popular products may be bundled with a most popular product.
 - The client priority is **medium**, and the estimated effort is **2**.
- As a marketing manager, I would like to tweet competitions for special promotions, so that new customers will be attracted.
 - When a limited edition promotion is tweeted, the promotion will be given to the users who first retweet them.
 - When a user has won a special promotion, the promotion will be applied directly to his/her account.
 - The client priority is **medium**, and the estimated effort is **2**.

- As a marketing manager, I would like to follow users if they were a regular customer so that I can give special offers to them.
 - When a regular customer's order exceeds a certain amount, he may receive a free small pizza included in his order.
 - Some special offers are exclusive for regular customer followed by the admin account only.
 - The client priority is **medium**, and the estimated effort is **1**.
- As a website admin, I would like to provide the store address on the website home page so that customers can locate the shop.
 - If the customer chooses for collection, they will need to know the address.
 - The client priority is **low**, the admin can know the location of the shop. The estimated effort **2**.
- As a website admin, I would like to provide the store telephone number on the website home page, so that the customer can call us if they have problems.
 - Verify that the number provided is in the correct format.
 - Make sure that the customers can get through if they need support.
 - The client priority is **low**, and the estimated effort **1**.
- As a website admin, I would like to provide the store opening times on the website home page, so that the customers can know our operating hours.
 - If the opening time is changed, the admin can inform the information through Twitter.
 - If a customer order on closing time, the admin will tweet back to the customer about the opening time .
 - The client priority is **low**, and the estimated effort **0**.
- As a website admin, I would like to remove promotions from the menu when the period is over so that the customers will know that the promotion is no longer available.
 - If the period for a promotion is over, it has to be removed from the menu immediately.
 - The client priority is **low**, and the estimated effort **2**.
- As an admin, I would like to send a tweet to the user when their order is dispatched so that the customer can know their orders are on their way.
 - Verify that the customers who choose for delivery will be notified.
 - The client priority is **low**, and the estimated effort is **1**.
- As a marketing manager, I would like to tweet statistics about the most popular pizza

- The most popular products will have a discount when purchased with add-ons.
 - If the user ordered a bundle consists of the most and least popular products with some add-ons, they will receive a special offer directly applied to his/her account.
 - The client priority is **low**, and the estimated effort is **2**.
- As an admin, I would like to unfollow users if they haven't ordered in a long time so that only regular customers will benefit from the special offers.
 - When a regular customer stops ordering for at most 2 months, he/she will be grouped with other inactive users.
 - A user from the group will be unfollowed if they have not placed an order in 4 months.
 - The client priority is **low**, and the estimated effort is **1**.

Client priority statement

The top three priorities in this project are:

1. The users must be able to sign in via Twitter and connect with the system successfully.
2. The admin must be able to create a new order in the system after confirming the order with the users
3. The order must be delivered successfully.

As with most businesses, profit is the primary objective, of which should be facilitated through marketing and other means. Services which relate to the aforementioned priorities, ought to be robust, and have a high uptime.

General constraints

- Conversations on Twitter via PM's or tweets are not limited, i.e. they could be endless. This should be constrained, e.g. after so many messages the consumer should be called by the admin, in order to resolve the problem.
- Customers cannot order outside of operating hours, as the store will not be able to process the order. The last order that will be accepted is 30 mins before the store closing time, and admin will no longer be obliged to answer any customers messages regarding new orders.