

**Don’t Panic – an e-commerce application**

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**1.**

The domain this proposed web application will serve is an online retail business. Research by the Marketing Institute of Ireland and UCD showed that consumers in Ireland spent approximately €5 billion online in 2017 alone. Unfortunately, only 40% of this spending is on Irish owned websites (UCD Graduate Business School, 2018). Despite Brexit, the EU Digital Single Market is advocating for cross-border online trade so Ireland will be able to focus on the much larger EU consumer market - €500 billion online (Wolfgang Digital, 2016, p.11). ‘Don’t Panic’ is a web application that fulfils the requirements of an online e-commerce website.

The Wolfgang Report indicates mobile usage to access e-commerce sites is up to 45%. Desktop computers average 42% of all traffic and tablets 13% (Wolfgang Digital*,* 2016, p.4). An adaptable website is thus a necessity, as only 46% of surveyed mobile users will wait longer than 16 seconds before moving on (*How loading time affects your bottom line*, 2018). As the target market for ‘Don’t Panic’ products will likely own a variety of devices, the website should be fully responsive. This will be implemented using modern CSS3 standards and technologies, using media queries and flexbox positioning to achieve a flexible site structure.

The webshop is dynamic in nature, so an integrated relational database must be included. The database will be implemented using an Object Relational Mapping Framework called ActiveRecord, which comes with Ruby on Rails as a recommended default. An outline of the database follows:

|  |  |  |
| --- | --- | --- |
| **Name of table** | **Primary Key** | **Further information** |
| User | userId | Customer’s first name; last name; user name; password; email address; phone number; address and shipping address |
| Purchase\_History | historyId | Customer’s user id; item id; order id; date and time of purchase; item quantity; and total price |
| Store\_Item | itemId | Item name; type; description; price and availability |
| Item\_Type | typeId | Item name and description |
| Shopping\_Cart | cartId | The item id; item price; item quantity; date and time added; user id; |
| Order | orderId | Item id; price; quantity; date and time purchased; total price; user id |
| Payment\_Info | payInfo | Payment method; card number; card issuer; cardholder’s name; cardholder’s address; optional: PayPal ID; user id |
| Shipping\_Address | shipAdId | The street; house number; city; country; postal code; user id |

**2.**

Users of the ‘Don't panic’ website can access information about available products without registration. This includes images, prices and description of each product. Search functionality will be enabled and products may be listed by price (high to low and vice versa), by product type (e.g. ‘Babel Fish’, ‘Towel’) or by name. Users have the option of sharing a link to a product via email or social media.

Users may browse and share the news about product updates or events. They also have access to links for the Vogon Poetry generator and the BBC Hitchhiker’s Guide To The Galaxy game. This should encourage interest and loyalty even if users are not yet ready to purchase.

A user will be prompted to log in upon adding their first product to the shopping cart if not already logged in. They won’t be able to progress without either login or registration. This allows for the creation of an open order with a recognised user and for targeted product recommendations.

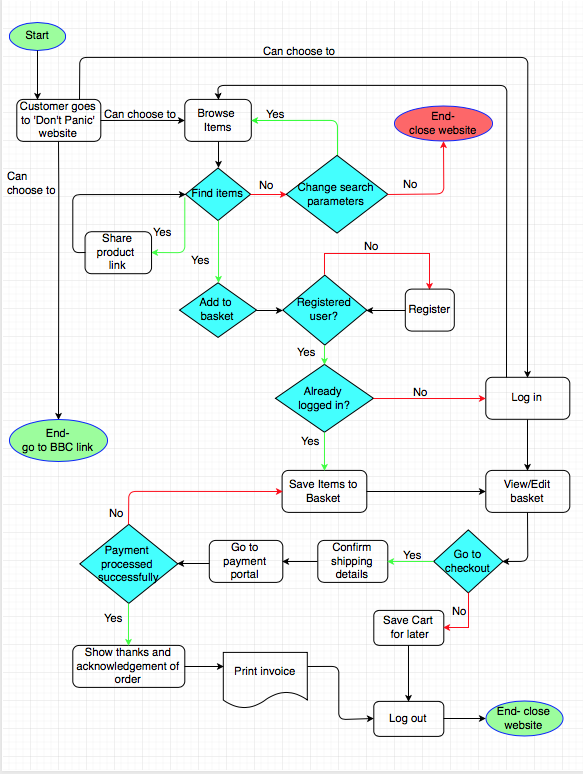
Registration with the site comprises user details; email address (as user name); and password. This may be updated on ‘My account’ page at a later time should details change. This page will also include details of all orders.

Once a user adds an item to a cart, they are prompted to return to shopping or view the cart. On the cart page, users may add or delete items before confirming details are correct and checking out. They then proceed to the payment portal. Users must complete their card details and may be redirected to a banking verification page. Upon transaction confirmation, users are taken to an acknowledgement page. An order review, delivery dates and an option to download an invoice will be present here.

**3.**

The web application will be built in the next eight weeks on Ruby on Rails. The website will minimise media in order to allow for greater responsiveness.

* Home – Welcomes the user to the website and shows the ten most popular webshop products. It will also contain any site news.
* Vogon Poetry page- Allows users to link to BBC generator and game.
* Site navigation menu – Present at the top of the page, it includes a logo and links to the main pages. On smaller screened devices, a hamburger will appear, and be clickable to display the navigation. By freeing up screen real estate for pertinent material on smaller screens, and keeping the navigation menu within easy reach, it should be more user-friendly.
* Site search – For specific items entered by the user.
* Product pages – These display images, description and pricing information. This is organised and out of stock items cannot be placed in cart.
* Log in page – Prompts the user to enter their email address and password for verification.
* Registration – Prompts user to enter details to create an account. This is used to verify the user’s permission to order items as well as email site news and products to the user.
* My Account- Used to amend personal details, show purchase history and progress of orders.
* Shopping cart – Can’t be accessed until log in, but shows items ordered; allows user to change items; and saves items until checkout.
* Payment page – User provides their payment details (card or PayPal) and the transaction is redirected to an appropriate portal. Further verification may be required. Payment is accepted or declined. If accepted, the user is directed to the acknowledgement page.
* Contact us- Allows for customer feedback
* About us – Allows for users to see the company philosophy and staffing



References

UCD Michael Smurfit Graduate Business School (2018) *Irish Consumers spent 3 billion with online retailers abroad in 2017*. Available at: <http://www.smurfitschool.ie/news/irish-consumers-spent-3-billion-with-online-retailers-abroad-in-2017.html> (Accessed: 01 March 2018)

Wolfgang Digital (2018) *The Wolfgang Digital Online Economy Report 2016*. Available at: <https://www.wolfgangdigital.com/uploads/case-studies/The_Wolfgang_Digital_Online_Economy_Report_2016.pdf> (Accessed: 01 March 2018)

*How loading time affects your bottom line* (2018). Available at: <https://blog.kissmetrics.com/loading-time/?wide=1> (Accessed: 01 March 2018)

Appendix A

