**DESCRIPTION**

This e-commerce website sells single origin coffee beans sourced from around the world and coffee brewing equipment such as v60 drippers meant for home brewers. The website will be designed to be user-friendly and informative, with detailed product descriptions, images, and easy checkout.

The target audience for the website are coffee afficionados who are looking for specialty grade coffee which are ethically sourced and premium brewing equipment to extract the best out of the coffee beans. The website will appeal to this audience by offering a premium selection of coffees from different regions of the coffee belt, as well as a variety of brewing equipment to choose from.

**USER STORIES**

**Step 1: User stories**

**Title**: User to be able to view, search and browse for the coffee products which are available on the site.

**Story**: As a customer I want to be able to search or browse through the site because I want to find the coffee product of my liking

**Acceptance criteria**: List of conditions that must be satisfied. What needs to be done for sign off.

The <reason> is the less useful of the three but can assist with prioritisation. Here are our user stories for the tour booking application:

**2) Title**: View specific details an price of coffee products found on the site.

**Story**: "As a user I want to view the details of the coffee product because I am searching for something that suits my taste and preference as well as budget "

**Acceptance criteria**:

1) Key facts of coffee products (e.g. price, tasting notes) should be available

2) Interesting information about the coffee bean or product should be visible

**3) Title**: Allow user to select coffee product and add to the cart

**Story**: "As a user I want to select a list of my preferred coffee beans because I want further information about them and compare their prices."

1) Tour can be added or deleted from the cart

2) Total indicative price to be displayed

**4) Title**: Allow user to request further information from site about coffee products (checkout their information)

**Story**: "As a user I want to be able to reach out and get further information of the coffee product that I am interested in so that they can contact me to facilitate the order."

**Acceptance criteria**:

1) Contact details of user must be taken and sent along with list

2) Site must provide contact form for user to submit enquiry, name and contact details should be recorded for each user enquiry.

**5)Title:** Allow user to add product to car and checkout.

**Story:** As a customer, I want to be able to add products to my shopping cart and checkout securely, so that I can purchase the products I want.

**Acceptance criteria:**

The website must have a shopping cart system that allows customers to add and remove products from their cart.

The website must have a secure checkout process that allows customers to pay for their purchases using a variety of payment methods.

The website must send customers a confirmation email after they have placed an order.

As a customer, I want to be able to track my order status and manage my account information, so that I can stay up-to-date on my purchase and make changes to my account as needed.

[Product]

- id: int

- name: string

- description: string

- price: float

- category: string

[Customer]

- id: int

- name: string

- email: string

- shipping\_address: string

- billing\_address: string

[Order]

- id: int

- customer\_id: int

- order\_date: datetime

- total\_amount: float

[OrderItem]

- id: int

- order\_id: int

- product\_id: int

- quantity: int

[Payment]

- id: int

- order\_id: int

- payment\_method: string

- transaction\_id: string

Type: The type of coffee equipment, such as a coffee maker, espresso machine, grinder, or French press.

Brand: The brand of the coffee equipment.

Model: The model of the coffee equipment.

Capacity: The capacity of the coffee equipment, such as the number of cups of coffee it can make or the amount of coffee beans it can grind.

Features: The features of the coffee equipment, such as a built-in grinder, a timer, or a programmable brewing system.

Price: The price of the coffee equipment.

Image: An image of the coffee equipment.

Much of the work to create the data model has already been completed. We perform following steps to convert our conceptual model to a data model:

1. We remove behaviour (drop the methods). Our data model is only concerned with data and relationships.
2. Our classes become tables
3. Every row in a table must be unique so we add a primary key (PK) as an attribute in each table
4. Multiplicity will be the same but we need to represent the relationships using foreign keys (FKs). A foreign key is a column or group of columns in a relational database table that provides a link between data in two tables. It acts as a cross-reference between tables because it references the primary key of another table, thereby establishing a link between them.
5. Finally, it is convention to name the association.

The data model for our web application is:

A screenshot of a computer

Description automatically generated

Here we see that we have added PKs to each table. We have also established a 1 to many relationship between City and Tour by placing the City PK into Tour as an FK. Establishing a many to many relationship between Order and Tour is more involved and is achieved by the creation of a new table called OrderDetails. The OrderDetails table achieves this by hosting the PKs from both tables as FKs. Connections can now be made between specific orders and tours (and vice versa) using this additional table.

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Home page

The landing/home page is the main page of the web application. From

this page, the user is guided to the other pages (e.g. using a navigation

bar) to perform the different functions supported by the ecommerce store.

The page should have the user interface elements to allow the user to

search for products and to add to them to a shopping basket.