FPT INTERNATIONAL SCHOOL

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e-PROJECT

AGURI JEWELLERY ECOMMERCE WEBSITE

(AGURI-J.COM)

Batch: T2207E/ Semester: I/ Group: 2

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| Instructor: |  | Trinh Quang Hoa |
| Students: |  | Nguyen Thanh Thuy  Vu Thi Hue  Nguyen Van Truong An  Nguyen Thuy Duong  Tran Thi Mai Hien |

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# I. PROBLEM DEFINITION

## 1. INTRODUCTION

“AGURI JEWELLERY” is one of the leading manufacturers and suppliers of precious, semi precious and artificial jewelleries. They sell these jewelleries under different brand names. The quality of the products are renowned for striking features such as smooth polish, stunning design and excelling clarity, look and feature, and luster. The shop owner wishes to have the website of the jeweller shop where they want to describe all the type, brands of the product.

Our team spent a few days analysing their requirements, their business model, their stores, their product lines… and came to the conclusion.

**Requirements:**

1. The homepage must describe the keywords or highlights of the shop along with all navigation links defined.
2. The product must be categorised as per the “Brand”.
3. It should be followed by sub-category with the type (Original, Semi Precious, and Artificial).
4. Proper description of the products along with images must be added in the website.
5. Comparison of the products must be included in the website (like comparison between products of the same design but one will be semi precious and other artificial and so on).
6. The “Contact Us” page should have the address of the company and the mail address which when clicked will invoke the local mail client from where they can send an email. Address of the company should be displayed using GeoLocation API (eg. GoogleMaps).
7. About Us, Feedback Form and Gallery section should be added.
8. Colour combinations must be uniform throughout the project.
9. Navigation must be smooth.
10. The website is to be developed for the Windows Platform using HTML5, Typescript and GeoLocation.
11. The site should work well in all leading browsers including Chrome, IE, Firefox etc.

**Functions:**

1. Database is easily managed and expanded in the future.
2. The website interface has an artistic design, with the main cold colours used skillfully, both showing the spirit and breath of the brand, and helping to enhance the sophistication and high-class for the jewellery product line that they provide.
3. Beautiful product images, including single product images and images on models, are processed with eye-catching effects and enhanced user experience such as carousel slideshow, hover effect, zoom, etc.
4. Each product has detailed description and is classified by categories/sub-categories, collections, materials, jewellery types, etc., making it easy to find and manage.
5. Highlight best sellers, featured product, new arrivals, suggest similar products and etc. to attract users
6. Search function, compare similar products, product quick view, add to cart, product feedback/review, filtering, online chat support, etc.
7. Input form validation.
8. Customers can register to receive newsletters, sign up for members to make shopping more convenient as well as receive special offers from the brand.
9. Information page about the brand, showroom, instructions related to purchase such as gem classification, product care, warranty, how to choose ring size ...
10. Link page navigation, back to top button, convenient breadcrumb navigation, links to other social networking accounts of the brand such as facebook, instagram, pinterest

# 2. IMPLEMENTATION ENVIRONMENT

1. HTML5/ CSS/ TypeScript
2. phpMyAdmin/ MySQL
3. Angular/ NodeJS
4. Bootstrap / jQuery / Angular Google Maps
5. Font Awesome/ Web Fonts

# 3. USER STORIES (Online customer)

# 3.1. FIRST IMPRESSION: Homepage

As a normal customer who is distracted by many online contents and ads everyday, I want the Home Page of my favourite accessories store to be minimalist yet filled with lots of beautiful photos of jewelleries which show elegance and luxury.

# 3.2. PLACING ORDER EXPERIENCE: Category. Product Detail. Order.

Since Aguri has only recently emerged as one of the leading manufacturers and suppliers of jewellery in the US, they have not had any overseas showroom yet. Therefore, especially for overseas clients, the website must provide ample information of the products, jewellery purchasing guides and online customer support.

Since jewellery is all about details, users must be able to zoom in product details so that they can appreciate all the fine features of Aguri’s creations. Product images should also include those with models trying on Aguri’s jewelleries so that users can easily relate with the products.

The shopping experience must be intuitive and easy to navigate. Product categories must be clear so that I can quickly browse through as many products as possible to find the ones that I like the most. And finally, the website should give me a way to check my order status easily.

# 3.3. OTHER PAGES: About Us, Contact Us, Jewellery Guide, etc.

Last but not least, a website cannot be authentic if it contains only the homepage and product page. Other pages like About Us, Contact Us, etc. should be there as well in case I want to look for information or contact the company to send feedback about their products.

# II. DATABASE

# ER model & DB Relationship Diagram

# ER model

# Diagram Description automatically generated with low confidence

# DB Diagram

# Diagram Description automatically generated

# Table

# 2.1 Table Categories

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| SID | Int | PK | Primary key of the table |
| Sub\_name | Varchar(100) | Not null | Sub-categories name |
| Cate\_name | Varchar(100) | Not null | Categories name |
| CID | Int | Not null | Identity categories |

# 2.2 Table Products

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| PID | Int | PK | Primary key of the table |
| Name | Varchar(255) | Not null | Product name, to identify product |
| Unit | Varchar(20) | Not null | Such as: pcs, pair |
| Price | Decimal(12,3) | Not null | Price of product |
| Description | Text | Not null | Detail of product |
| Stock | Int | Not null | Amount of product |
| Thumb | Varchar(255) | Not null | Link to the folder where thumbnail of product is stored |
| SID | Int | FK(1) | Foreign key references table Categories(SID) |
| Size | Float | Not null | Size of product |
| Material | Varchar(100) | Not null | Material of product |
| Jewellery\_type | Varchar(100) | Not null | Type of jewellery such as: natural jewellery, lab-grown or none |
| Collection | Varchar(100) | Not null | Name of collection |

# 2.3 Table Medias

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| MID | Int | PK | Primary key of the table |
| Url | Varchar(255) | Not null | Link to the folder where image is stored |
| PID | Int | FK(2) | Foreign key references table Products(PID) |

# 

# 2.4 Table Customers

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| CusID | Int | PK | Primary key of the table |
| Cus\_name | Varchar(255) | Not null | Name of customer, to identify customer |
| Phone | Varchar(20) | Unique | Telephone of customer, to identify customer |
| Email | Varchar(100) | Not null | Information of customer |
| Address | Varchar(255) | Not null | Information of customer |

# 2.5 Table Reviews

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| PID | Int | FK(2) | Foreign key references table Products(PID) |
| Cus\_ID | Int | FK(4) | Foreign key references table Customers(CusID) |
| Comment | Text | Not null | Feedback of customer for product |
| Star\_rates | Int | Not null | Customer rating |
| Review\_date | Datetime | Not null | This is the time that customer reviews product |

# 2.6 Table Orders

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| Code | Int | PK | Primary key of the table |
| Order\_date | Datetime | Not null | This is the time that the customer orders product |
| Grand\_total | Decimal(12,3) | Not null | Total of money that the customer pay for the orders |
| Cus\_ID | Int | FK(4) | Foreign key references table Customers(CusID) |
| Status | Varchar(100) | Not null | Status of order |
| Shipping\_method | Varchar(255) | Not null | Shipping method of order |
| Shipping\_fee | Decimal(12,3) | Not null | Shipping fee of order |
| Payment\_method | Varchar(255) | Not null | Payment method of order |
| Receiver\_name | Varchar(255) | Not null | Name of consignee |
| Receiver\_phone | Varchar(20) | Not null | Information of consignee |
| Shipping\_address | Varchar(255) | Not null | Information of order |

# 

# 2.7 Table Order Items

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraint** | **Description** |
| Order\_code | Int | FK(6) | Foreign key references table Orders(Code) |
| PID | Int | FK(2) | Foreign key references table Products(PID) |
| Quantity | Int | Not null | Quantity of product that customer orders |
| Price | Decimal | Not null | Amount of order items |
| Address | Varchar(255) | Not null | Information of customer |

# III. UI\UX

# 1. HOMEPAGE

**Example 1** (First look/ Slideshow gallery/ Dropdown menu when hover)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, website  Description automatically generated |

**Example 2** (New Arrivals/ Best Section & Back-to-top button shows up in bottom-left side when scroll down)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, application, website  Description automatically generated |

**Example 3** (Other Information)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, website  Description automatically generated |

# 2. PRODUCTS

**Example 1** (Shop all)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, application, Teams  Description automatically generated |

**Example 2** (Category/ Sub-Category/ Filtering/ Featured Product/ Quick view)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, application, website  Description automatically generated |

|  |  |
| --- | --- |
| Graphical user interface, application  Description automatically generated | Graphical user interface, application  Description automatically generated |

**Example 3** (Product Detail)

Click to change the image you want to zoom in:

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, website  Description automatically generated |

Find size/ Description/ Ask for Advisor:

|  |  |
| --- | --- |
|  | Graphical user interface, website  Description automatically generated |

|  |  |
| --- | --- |
| Graphical user interface, application, website  Description automatically generated | Graphical user interface, website  Description automatically generated |

**Example 4** (Add to bag)

|  |  |  |
| --- | --- | --- |
| Graphical user interface  Description automatically generated | Graphical user interface  Description automatically generated with low confidence | Graphical user interface, text, application  Description automatically generated |
| Change quantity/ Delete product from bag | |

**Example 5** (Check out/ Billing/ Order confirmation/ Tracking order)

|  |  |
| --- | --- |
| Graphical user interface  Description automatically generated | Graphical user interface, website  Description automatically generated |

|  |  |
| --- | --- |
| Graphical user interface, application  Description automatically generated | Graphical user interface  Description automatically generated |

# 3. CONTACT US

Contact/ Feedback & Showroom location:

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, website, map  Description automatically generated |

# 4. OTHER PAGES (Search, Jewellery Guide, About Us)

**Example 1** (Input keyword and Search)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Graphical user interface, text, application, email  Description automatically generated |

**Example 2** (Jewellery Guide)

|  |  |
| --- | --- |
| Graphical user interface, website  Description automatically generated | Text  Description automatically generated |

|  |  |
| --- | --- |
| Graphical user interface, application  Description automatically generated | Graphical user interface  Description automatically generated |

**Example 3** (About us and Shipping & Return)

|  |  |
| --- | --- |
| Graphical user interface, text  Description automatically generated | Graphical user interface, text, application, email  Description automatically generated |

# IV. SUMMARY

This website is done thanks to our teacher (Mr. Trinh Quang Hoa), our hard-working and responsible team members.

|  |  |  |
| --- | --- | --- |
| **ID** | **Name** | **Task** |
| 1 | Nguyen Thanh Thuy | Leader, Database, Data, Project presentation. |
| 2 | Vu Thi Hue | API (NodeJS), Call API, Header/ Footer, Menu bar, Navigation, Category, Sub-Category, Jewellery Guide, Geolocation, Product detail, Quick view, Compare, Search, Add to bag, Effect, Debug, Project report document. |
| 3 | Nguyen Van Truong An | Home page, Test (QA), Debug, Overall support, Project report document. |
| 4 | Nguyen Thuy Duong | Web design, Data, Home page, Spinner, Sign up/ Sign in, Shop all, Product detail, Quick view, Compare, Shopping bag, Check out, Thank you (Order confirmation), Tracking order, Jewellery Guide, Feedback, Shipping & Return, Effect, Project presentation. |
| 5 | Tran Thi Mai Hien | Data, Test (QA), Debug, Overall support, Project presentation. |