

# **CST2120 Web Applications and Databases-**

## **Coursework 2: E-commerce Website**

### **Group Members:**

- Hadar Cohen (id: M00847153)**
- Sunny Subash (id: M00833071)**
- Antonio Kefali (id: M00819653)**

## **Website name:** Phone Planet

### **Brief description:**

We have created an e-commerce website to sell a variety of different cell phones.

We will be selling 3 different brands: Apple, Samsung, and Nokia.

The users on the website will be able to login or register to the website to be in track with their order history.

They will also be able search for a specific brand they would want to purchase. There will also be a staff portal for the staff to add products, view orders, update stock, and delete products that are not available.

### **Database design:**

We have used mongoDB to create our collections for the database. We have created 4 collections for our website: (Products, Orders, Customers and Staff).

Relationship between collections-

1. customers -> orders = 1 to 1.

The primary key is customerId which is in the Customer collection which acts as a foreign key in the orders collection.

### **Orders collection :**

```
> db.Orders.find().pretty();
{
    "_id" : ObjectId("63c9a8f261bd9d2efb9104dd"),
    "order_id" : " 112233 ",
    "customer_id" : " JJ0101 ",
    "Delivery_address" : " 12 High Street N1 2UI ",
    "price" : " 1,149.00 ",
    "date_of_order" : " 28/02/2020 "
}
{
    "_id" : ObjectId("63c9aa5f61bd9d2efb9104de"),
    "order_id" : " 11223344 ",
    "customer_id" : " MC0101 ",
    "delivery_address" : " 48 Sunny Garderns NW4 1OP ",
    "price" : " 1,149.00 ",
    "date_of_order" : " 13/01/2021 "
}
```

## Products collection:

```
> db.Products.find().pretty();
{
  "_id" : ObjectId("63c89190fbd55c4cdd1deb4c"),
  "ProductName" : "iPhone",
  "price" : "700",
  "brand" : " Apple iPhone",
  "model" : " 13 Pro",
  "color" : " Silver",
  "ScreenSize" : " 6.06 inches",
  "Memory" : " 128 GB",
  "OperatingSystem" : " iOS",
  "Quantity" : " 3",
  "BatteryLife" : " 3,095 mAh"
}
{
  "_id" : ObjectId("63c99b842c6ef037e29e98b7"),
  "product_name" : " iPhone 14 pro max"
}
{
  "_id" : ObjectId("63c99dc61bd9d2efb9104d9"),
  "ProductName" : "iPhone",
  "price" : " 1,149.00",
  "brand" : " Apple iPhone",
  "model" : " 14 pro max",
  "color" : " Space Grey",
  "ScreenSize" : " 6.69 inches",
  "Memory" : " 128 GB",
  "OperatingSystem" : " iOS",
  "Quantity" : " 3",
  "BatteryLife" : "4323 mAh"
}
{
  "_id" : ObjectId("63c9a5e061bd9d2efb9104da"),
  "ProductName" : "Samsung",
  "price" : " 1,149.00",
  "brand" : " Samsung Phone",
  "model" : " S22 Ultra",
  "color" : " Pink Gold",
  "ScreenSize" : " 6.8 inches",
  "Memory" : " 8GB Ram",
  "OperatingSystem" : " Android",
  "Quantity" : " 3",
  "BatteryLife" : " 5,000 mAh"
}
>
```

## Customers collection:

```
> db.Customers.find().pretty();
{
  "_id" : ObjectId("63c9a6cb61bd9d2efb9104db"),
  "Customer_id" : " JJ0101",
  "Firstname" : " Jon",
  "Lastname" : " Jones",
  "email" : " jonjones@gmail.com",
  "password" : " jon12345",
  "phone" : " 07751868851"
}
{
  "_id" : ObjectId("63c9a76761bd9d2efb9104dc"),
  "Customer_id" : " MC0101",
  "Firstname" : " Michael",
  "Lastname" : " Chiesa",
  "email" : " michaelchiesa@gmail.com",
  "password" : " michael12345",
  "phone" : " 07751868852"
}
>
```

## Staff collection:

```
> db.Staff.find().pretty();
{
  "_id" : ObjectId("63c9aaa761bd9d2efb9104df"),
  "username" : " hadar12 ",
  "password" : " hadar12345 "
}
{
  "_id" : ObjectId("63c9aad461bd9d2efb9104e0"),
  "username" : " sunny13 ",
  "password" : " sunny12345 "
}
{
  "_id" : ObjectId("63c9aafa61bd9d2efb9104e1"),
  "username" : " tony14 ",
  "password" : " antonio12345 "
}
>
```

## Backend of the website:

In the backend of our website, we will be using a comparing function to compare one phone to another.

We also have a section in the home page where we will show all our best-selling cell phones.

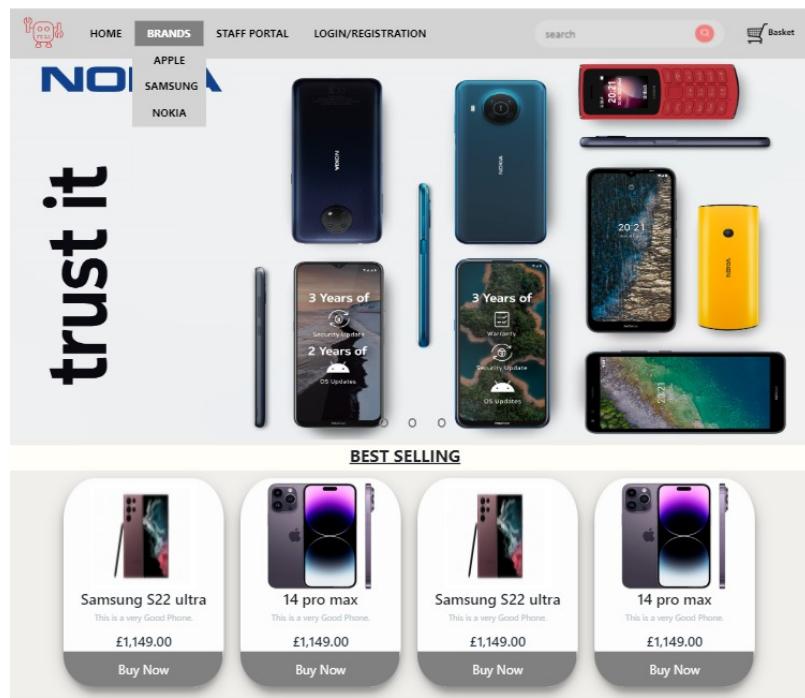
We will also have a sorting function to sort out the prices and popularity of the products.

In the staff portal – the staff will be able to login and do the following things:

- view products.
- add products.
- edit products.
- view and delete customer orders.

## Website screenshots:

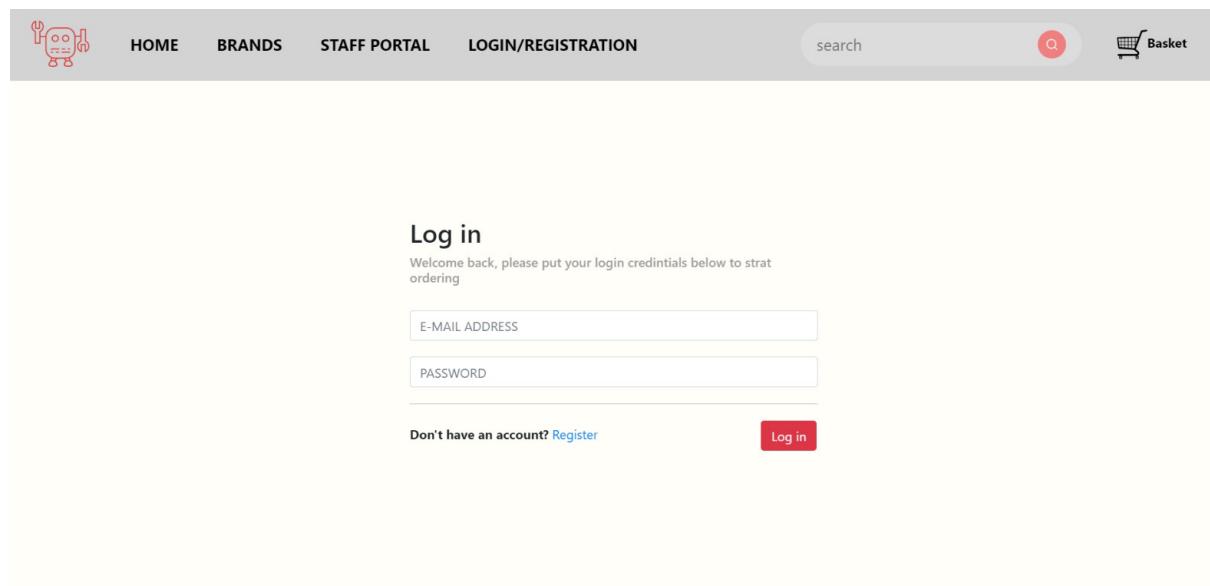
### Home page:



#### Brands:



### Login page user-



## Registration page user-



### Registration

Register to order your favorite phone

FIRST NAME

LAST NAME

USERNAME

Phone Number

E-MAIL ADDRESS

First line for addressee

Second line for addressee

Postcode

City

Country

PASSWORD

CONFIRM PASSWORD

I Agree to the [Terms and conditions](#)

---

Already Registered? [Log in](#)

[Register](#)

## Login staff portal-



### Staff Portal

Welcome back, please put your staff login details

Username

PASSWORD

---

[Log in](#)

## Staff portal page-

The screenshot shows a web page with a light gray header bar. On the left of the header is a red cartoon character logo. To its right are five menu items: "HOME", "BRANDS", "STAFF PORTAL" (which is highlighted in blue), and "LOGIN/REGISTRATION". To the right of the menu is a search bar with the word "search" and a magnifying glass icon. Further right is a shopping cart icon labeled "Basket". The main content area has a pink background. At the top of this area, the word "Welcome" is centered in bold black font. Below it are four rounded rectangular buttons, each containing a link: "Add Products", "Edit Products", "View Orders", and "Delete Orders".

## Contact us page-

The screenshot shows a web page with a light gray header bar, identical to the one in the staff portal screenshot. It features the same red cartoon character logo, menu items, search bar, and shopping cart icon. The main content area has a pink background. At the top, the words "Contact Us" are centered in bold black font. Below this, there is contact information in a smaller black font:  
Email us at:  
XYZ@gmail.com  
Call us:  
01234567898

## About us page-

search

Basket

### About Us

My name is Sunny Subash. I am a hardworking and dedicated BSc Computer Science student at Middlesex University with adequate knowledge of Java Programming, Object-oriented programming, developing desktop applications and using Java as a backend language in android application development. Ability to complete technical and critical tasks to the best of my knowledge with both participation and performing exceptionally well in Mathematics competitions.

## Terms and conditions page-

search

Basket

### Terms and Conditions

A hardworking and dedicated BSc Computer Science student at Middlesex University with adequate knowledge of Java Programming, Object-oriented programming, developing desktop applications and using Java as a backend language in android application development. Ability to complete technical and critical tasks to the best of my knowledge with both participation and performing exceptionally well in Mathematics competitions.

## Brand page-

The screenshot shows a brand page with a navigation bar at the top featuring links for HOME, BRANDS, STAFF PORTAL, LOGIN/REGISTRATION, a search bar, and a basket icon. Below the navigation, there are sections for different brands:

- APPLE**: Four iPhone 14 Pro Max devices are displayed in a row. Each card includes the product name, a short description ("This is a very Good Phone."), the price (£1,149.00), and a "Buy Now" button.
- SAMSUNG**: Four Samsung S22 Ultra devices are displayed in a row. Each card includes the product name, a short description ("This is a very Good Phone."), the price (£1,149.00), and a "Buy Now" button.
- NOKIA**: Four Nokia X20 devices are displayed in a row. Each card includes the product name, a short description ("This is a very Good Phone."), the price (£1,149.00), and a "Buy Now" button.

At the bottom of the page is a dark footer bar with links for About Us, Terms and Conditions, and Contact Us, along with social media icons for Facebook, Instagram, and Twitter.

## Brand page- Apple

This screenshot shows the Apple brand page with a similar layout to the main brand page. It features a navigation bar at the top and a section titled "Products" displaying multiple iPhone 14 Pro Max devices. Each product listing includes the product name, a short description ("This is a very Good Phone."), the price (£1,149.00), and a "Buy Now" button. A dropdown menu labeled "Sort:" is open over the second product card, showing options like "Popular", "Price: low to high", and "Price: high to low".



## Brand page - Samsung

Products

Sort: Popular

Samsung S22 ultra  
This is a very Good Phone.  
£1,149.00  
Buy Now

Samsung S22 ultra  
This is a very Good Phone.  
£1,149.00  
Buy Now

Samsung S22 ultra  
This is a very Good Phone.  
£1,149.00  
Buy Now

Samsung S22 ultra  
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Samsung S22 ultra  
This is a very Good Phone.  
£1,149.00  
Buy Now

## Brand page – Nokia

About Us   Terms and Conditions   Contact Us

HOME   BRANDS   STAFF PORTAL   LOGIN/REGISTRATION   search   Basket

Products

Sort: Popular

Nokia X20  
This is a very Good Phone.  
£1,149.00  
Buy Now

Nokia X20  
This is a very Good Phone.  
£1,149.00  
Buy Now

Nokia X20  
This is a very Good Phone.  
£1,149.00  
Buy Now

Nokia X20  
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