

Mobile User Experience

6MMCS001W

Report

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1.1 Information architecture



Figure-1 – Header (when signed in)

1. Hamburger – Toggles the Menu
2. Logo – Directs to the Landing Page
3. Cart – Directs to the Cart Page
4. Profile – Toggles the Profile Menu



Figure-2 – Header (Before signed in)

1. Profile – Directs to the Login Page

The header is consistent through all pages, except for the Login and Sign Up pages, in which the Logo will be present to direct the user back to the landing page.

Information Architecture has been maintained by grouping similar items together based on the **Subject/Topic**. This type of grouping allows ease of access to users as they are able to search for products based on the Categories provided.

- As seen in *Figure-3* the information has been listed by Subject/Topic.
- 1. Subtopics
- 2. Topic
- The bold and regular font differentiates between a Topic and a sub topic. All types of consumer products have been listed under “Categories”
- When clicked the user will be directed to the respective products page.
- “Promotions” and “Support” topics will direct the user to the Promotions and Support pages respectively.

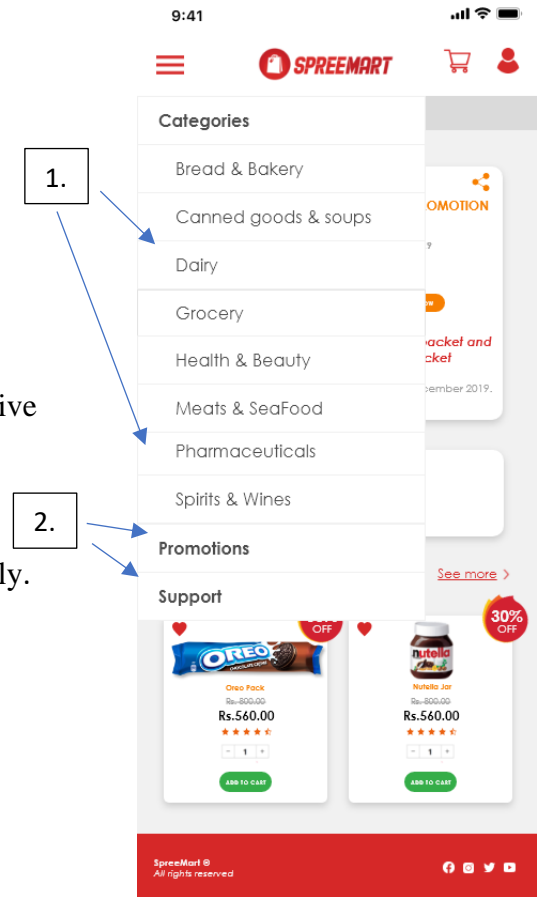
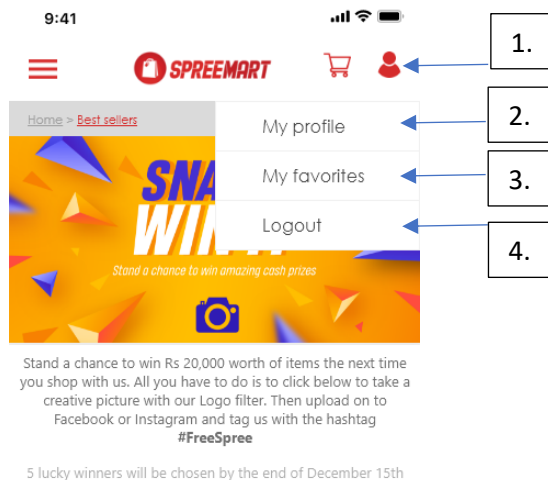
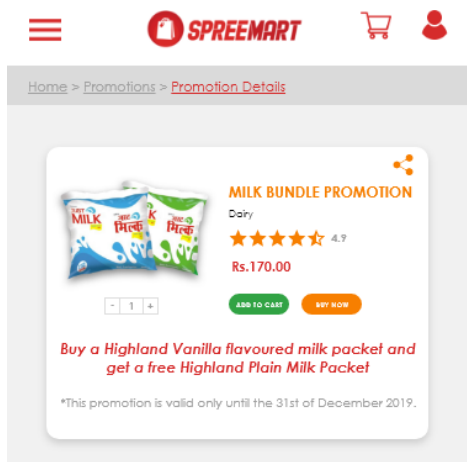


Figure-3 – Hamburger Menu



1. Profile Icon – Toggles the Profile Menu
2. My Profile – Directs to the Profile Page
3. My Favourites – Directs to the Favourite List
4. Log out – Logs out the user

Figure-4 – Profile Menu



1. The Breadcrumb

The breadcrumb is present throughout all pages indicating to the user of the current position on the mobile web app. It also provides ease of access to the user when navigating through the mobile web app.

Figure-5 – Breadcrumb

Mobile Information Architecture

Hub & Spoke is the concept that has been used for the navigation aspects. This is evident in the Landing page which is the first page the user is exposed to.

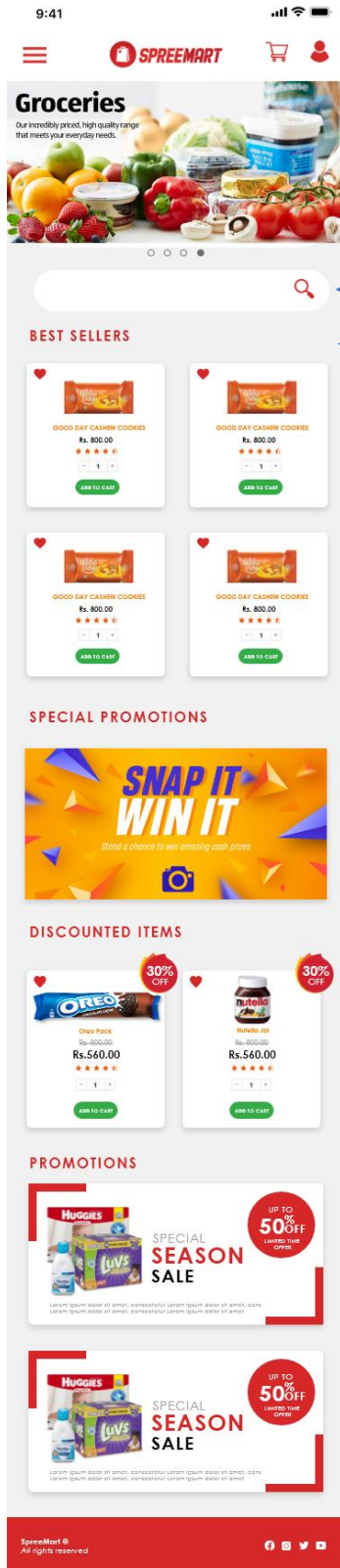
From the landing page the user will be able to directly access Best Sellers, Discounted Items, Promotions and the AR Promotion. The landing page acts as hub therefore the user can opt to navigate in this manner instead of using the Hamburger menu.

The landing page will contain attractive offers and discounts this design is good for attracting new users to the mobile web applications and for users who seek out the best deals. This concept can increase user satisfaction and lock in new users.

The Hamburger menu will be more efficiently used by users who are already familiar with the mobile web app, and will find it efficient to navigate through this route.

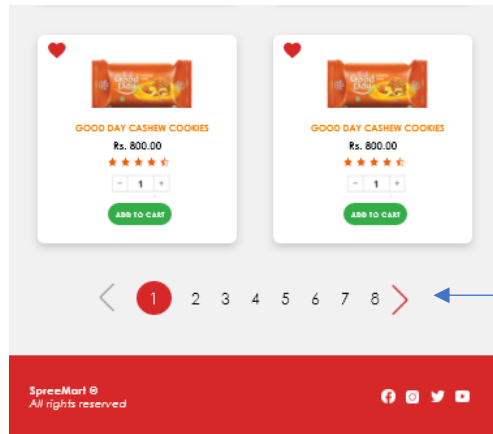
The landing page also contains a search bar. This feature was used to accommodate users that are in search of a specific product. These types of users need to be instantly directed to the product and would prefer to instantly search for the product to save time.

Therefore, our landing page has been designed to accommodate the needs of three user types that we have identified.



1. The search Bar – Allows users to search for the product they have in mind with ease.
2. Best Sellers – Hub and spoke architecture
3. Special Promotions – Hub and spoke architecture
4. Discounted Items – Hub and spoke architecture
5. Discounted Items – Hub and spoke architecture
6. Promotions- Hub and spoke architecture

Figure-6 – Landing Page



1.

1. Pagination guides the user to navigate through lists that flow on to other pages

Figure-7 – Pagination

Code used for the Navigation System:

1.2 Colour balance/composition/graphics/consistency

Primary Colours



#D62828

Amarnath Red



#F77F00

University of Tennessee Orange

The two primary colours used in designing the mobile web app are the two shades listed above. As the concept chosen is a supermarket the most appropriate colour is Red. Red has been identified as the universal colour associated with food marketing as red is capable of evoking the taste buds and stimulating the appetite.

A cohesive Red and White theme has been used consistently in all pages of the mobile web. This lets the users easily recognize that each page belongs to the site. The consistent header and footer further augment it.

The Logo of the Supermarket (SPREEMART) was designed to be consistent with the theme, see *figure-7*. By having consistency between the theme and logo a brand image can be built long term. As red is a bright colour it stands out more and is easily recognizable therefore by matching the Logo with our mobile web application it creates brand awareness which allows SpreeMart to stand from competitors.



Figure-8– Logo

Orange is also a color used in food marketing as it is said to satisfy the user. Orange has been used in product descriptions and ratings. Orange is also associated with excitement and warmth. Warmth leads users to take action. Therefore, orange has been used for the “Buy Now” button as it will evoke the user to make quick decisions based off on emotions.

Secondary Colours



#34AD48

Wageningen Green



#F7F7F7

White Smoke

Green and serves as secondary colour within the mobile application. Green is associated with health and well being and as of recent has been associated with food marketing.

Green buttons have been used for “Add to Cart” as green is a colour associated the concept “Go” which is a motivator for users. It will be put the users more at ease mentally, to click a green button than another colour.

The off-white shade has been used as the background color as it contrasts well with the two primary colours. Maintaining this contrast increases the readability and the legibility of the text used. As the mobile web application will be used primarily during day time and contains many elements and colors displayed we opted to use a light UI as opposed to a dark UI.

White space has been used to highlight and bring out elements such as images and icons. The white space is used out to bring elegance to the design and it has also been used to balance the design elements and better organize content to enhance the visual communication experience.

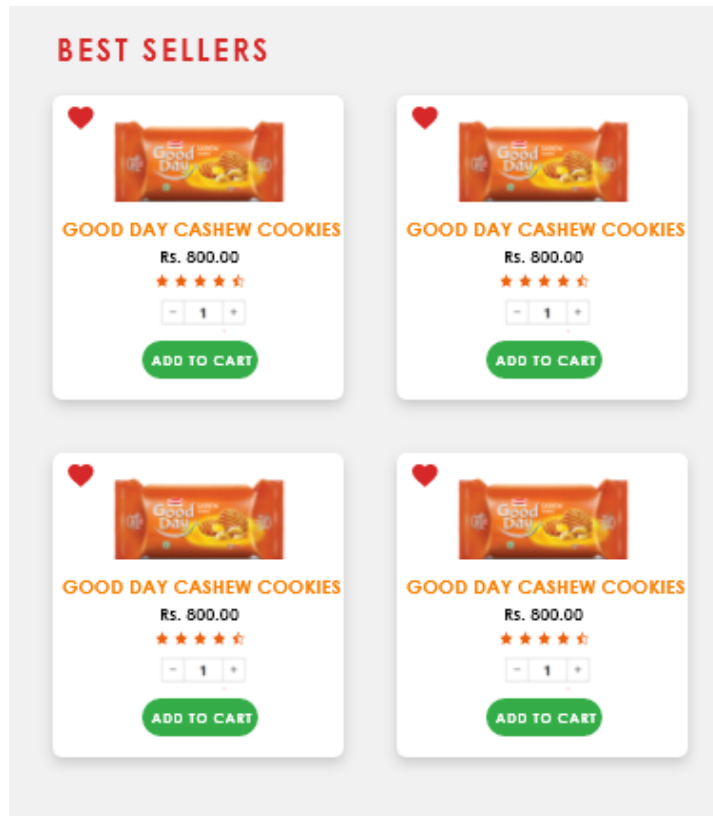


Figure-9-UI elements

As seen in *Figure 9* all UI elements compliment the overall theme and colours of the mobile web app.

The text and images are contrasted from the background which increases the readability.

The colours used are all associated with food marketing therefore the colors emotionally persuade the customer to make purchases.

Code to achieve good colour balance & ensure consistency

All CSS for all pages were maintained in external CSS files to maintain order and clarity in our folders.

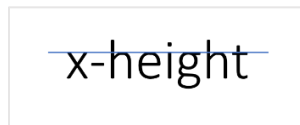
Prior to development a legends page was created for both Ipad and Iphone versions that contained elements such as the header, footer, product cards and buttons. All members referred to the legends page when developing the shared UI components in order to maintain consistency throughout all pages.

GitHub was used for efficient collaboration when developing the mobile web app. Shared folders of Icons and Images further ensured that all members were using the same repeating elements to maintain consistency.

code you wrote to structure your mobile web app in order to ensure good and consistent composition.

1.3 Typography / consistency

The font family **Century Gothic** has been used consistently in all pages. This font type was used as it has a high x-height, thus it is perceived as a larger text by the user.



*Figure-10-x-height of
Century Gothic Font*

Century Gothic font also has a low stroke contrast, which means the measure of a stroke's weight is more consistent and does not differ, which make is easier for the user to read.



Figure-11- Century Gothic Alphabet

Therefore, reading is made easier for the user as readability and legibility increases when fonts have high x-heights and low stroke contrast. Different font sizes have been used to establish hierarchy in the content.

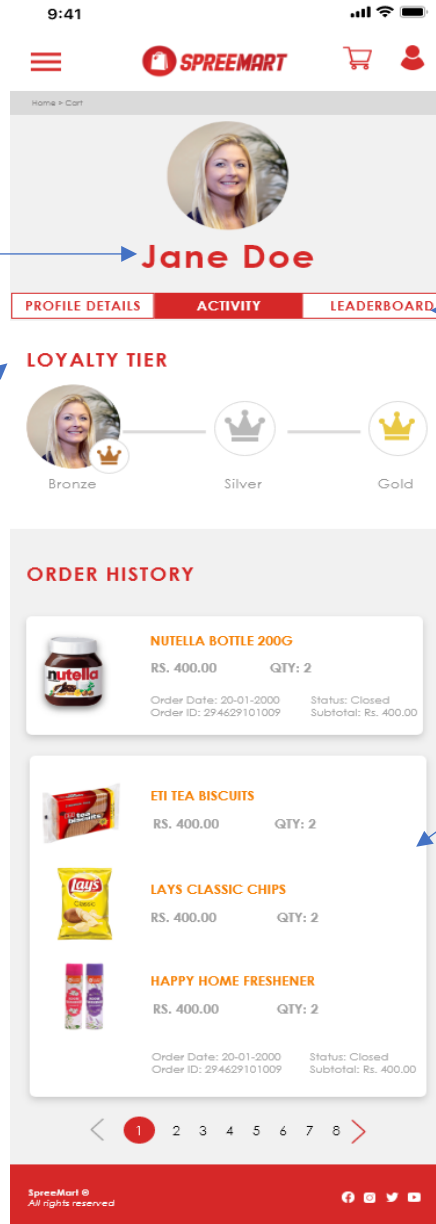
A larger font size has been used for headings and sub headings while smaller font sizes have been used for content.

Font colours used compliment the overall chosen primary and secondary colours and remain consistent with the overall theme, so it is more pleasing to the eye. However, we have ensured to use font colours that are contrasting well with the background colour as contrasting colours increases readability and recognizability.

As the font sizes vary according to hierarchy, font colours have also been used to establish importance of the content. While bright colours like red and orange have been used for content with more prominence, lighter colors have been used for less prominent content. This is done to direct the user's eye to the most prominent content.

1. Large font sizes have been used for headings and titles

1.



2.

2. Contrasting font colours and background colours have been used to increase readability

3.

3. Font sizes have been used to define hierarchy in content

4.

4. Darker font colours have been used to display the main content. While lighter colours are used for lesser content

Figure-12-Use of Fonts

Code to achieve good colour balance & ensure consistency

1.4 Photography / consistency

Many images have been incorporated to the SpreeMart Mobile web app as it is for a supermarket. When associated with food items specially sight place a key role in evoking the user's emotion, therefore users need to feast with their eyes in order to buy a product.

We have ensured to use high quality meaningful images for our products as users are more likely to buy a product based on its visual output as opposed to other factors.

As seen in *figure-13* .png file images have been used in the application. The images are of high quality and is meaningful as it aids the user to navigate and make decisions based on it.



Figure-13-Images used

As seen in *figure-14* the image is meaningful and it aids the user in navigation. The image also carries a lot of information that is of almost equal weight to the text.

Therefore, the image has been placed in the left-hand corner of the screen as that is vocal point the eye meets initially as this app is made for a culture

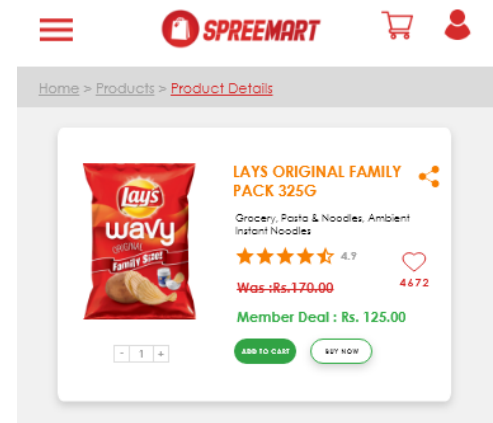


Figure-14-Image Placement

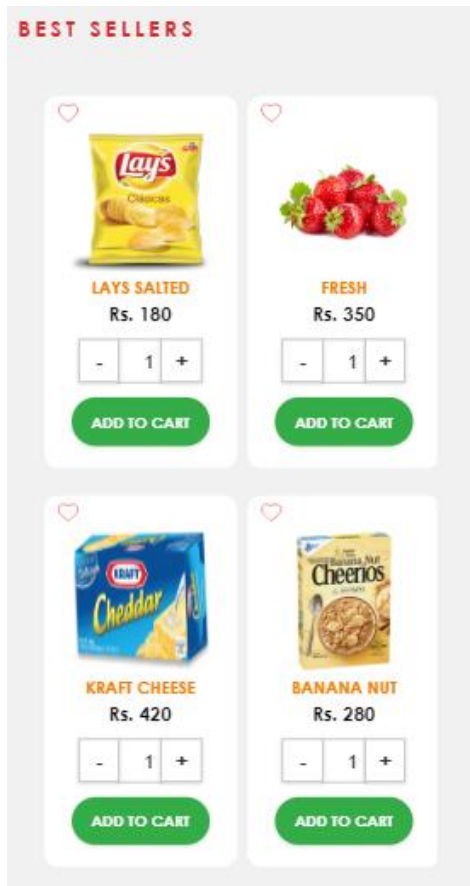
Code to achieve good colour balance & ensure consistency

What CSS you write to present images consistently?

1.5 Gestalt principles grouping

Gestalt which means unified whole is a theory based on how users perceive visual elements into groups or unified wholes when certain principles are used. We have ensured to use these principles in our own mobile web application.

Similarity



As seen in *figure-15* Although the different product cards contain different images and titles the user perceives them all as products. This is because all cards follow the same style and pattern which helps the user identify them as items that belong to a same group, in this case all items belong to products.

Figure-15-Similarity

Proximity

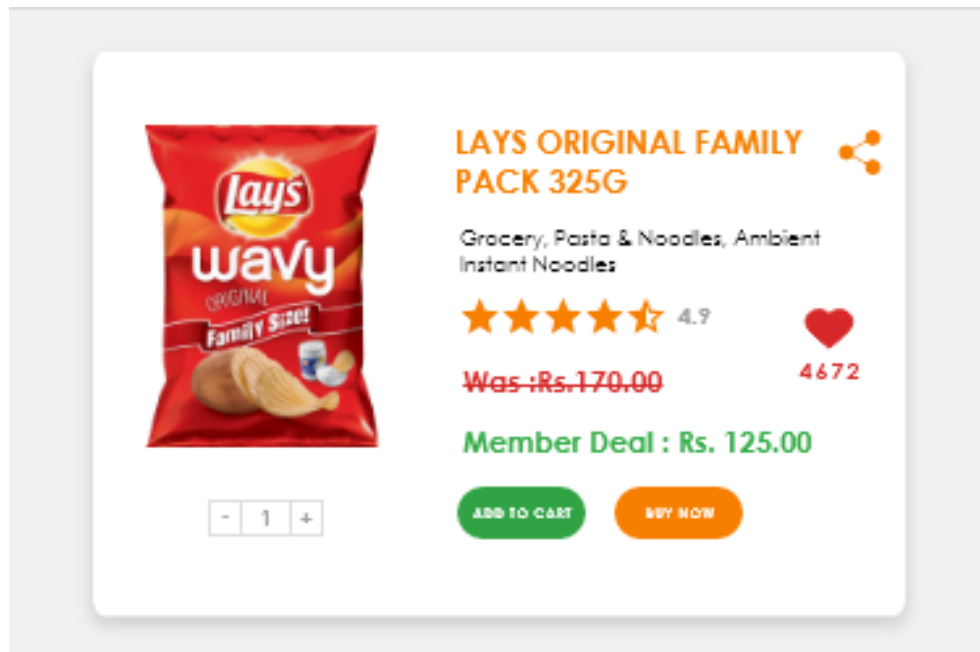
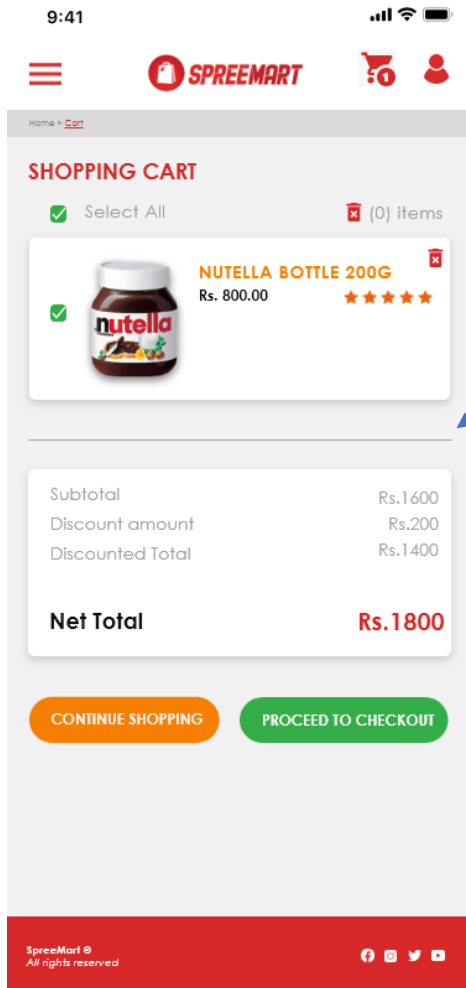


Figure-16-Proximity

Figure-16-is a product card in product details. Due to the proximity of the UI elements present and the use of a card to emphasize the content, the user is made to see that all elements present such as ratings, add to cart button, buy now button, share icon etc all belong to one product and its functionalities. This was the user perceives this entire card content as a whole.

Closure

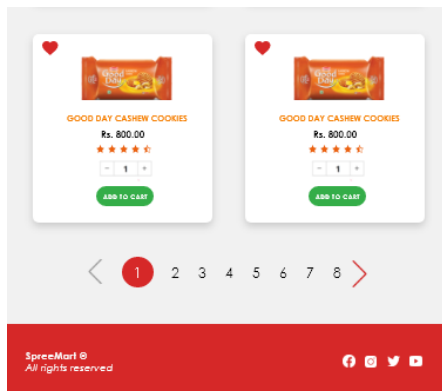


Closure is separating or ending a section to keep the user informed of an end of a section or a start of a new section.

As seen in *figure-17* which is our Cart page, the items in the cart and the total price section has been closed off which is being indicated by the grey line.

Figure-17-Closure

Continuity



Continuity is using UI elements to guide the user to the next path and direction which will increase user satisfaction.

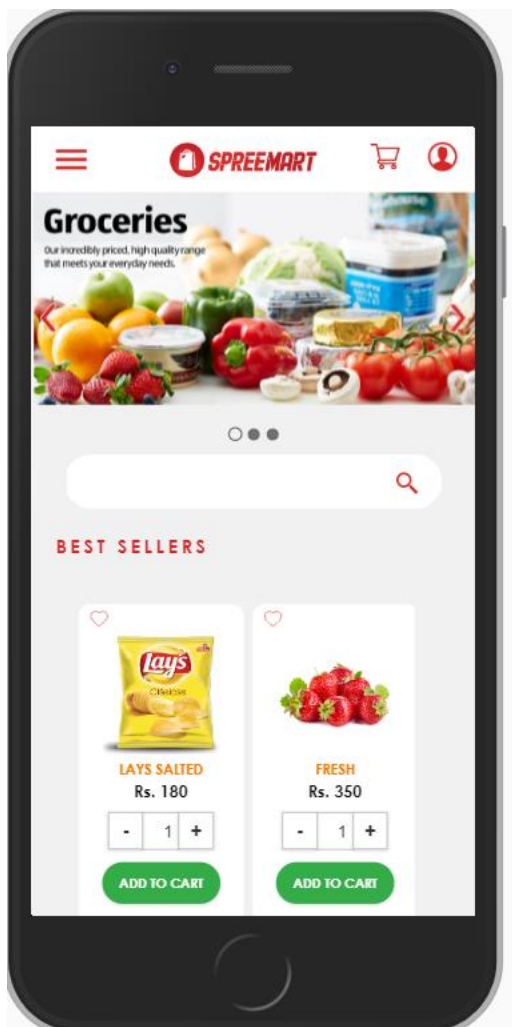
As seen in *figure-18* Pagination has been provided to the user so that they are guided to navigate and continue on to the next journey in the mobile web app.

Figure-18-Continuity

2 Design and implementation of features

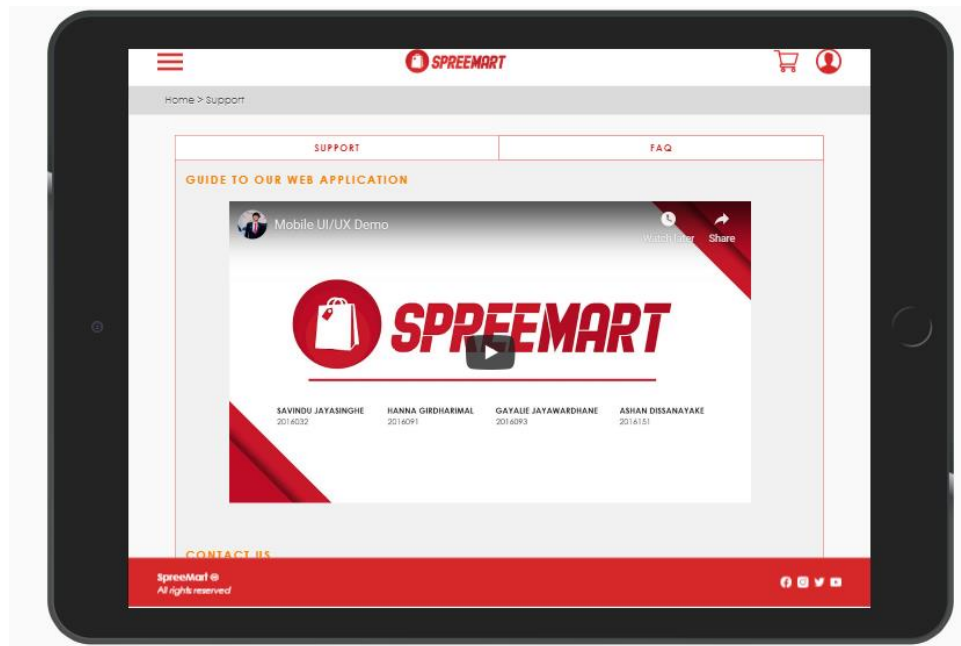
- Our UIs are responsive in both iphone and ipad screens. Initially we designed the iphone portrait and ipad landscape pages.
- The ipad version contain bigger ui elements as the ipad screens have more spaces to fill.
- As we used Jquery grids are screens from iphone portrait to landscape remained responsive. We have also written media queries to ensure that the view has not changed.
- This has been followed for all screens.

2.1 Eye catching introduction



Slider has been added on the landing page consisting of introductory information

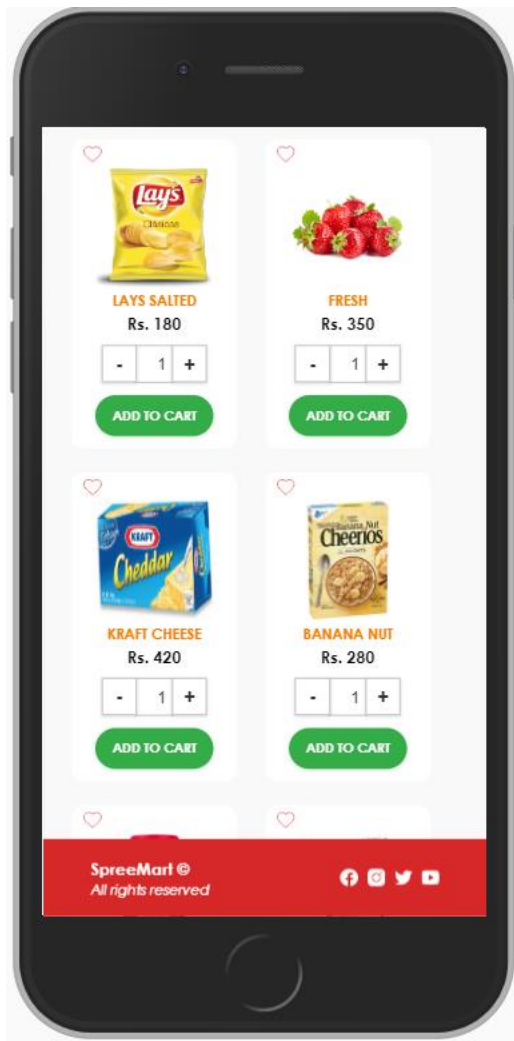
2.2 Incorporation of a short video



Incorporation of the short video is done by uploading the video on to YouTube and then using the iframe tag to import the video on to the application.

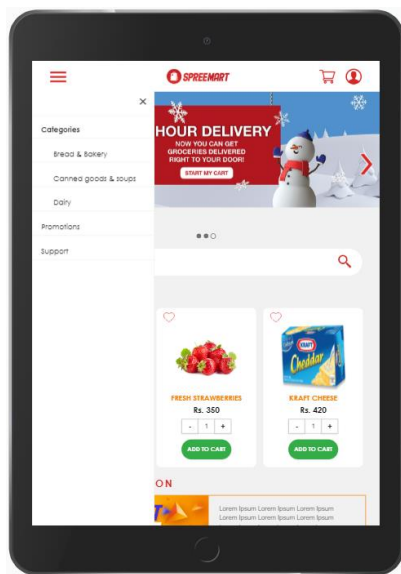
```
<iframe class="videoholder" src="https://www.youtube.com/embed/z94i20meud4" frame
border="0" allow="accelerometer; autoplay; encrypted-media; gyroscope; picture-
in-picture" allowfullscreen></iframe>
```

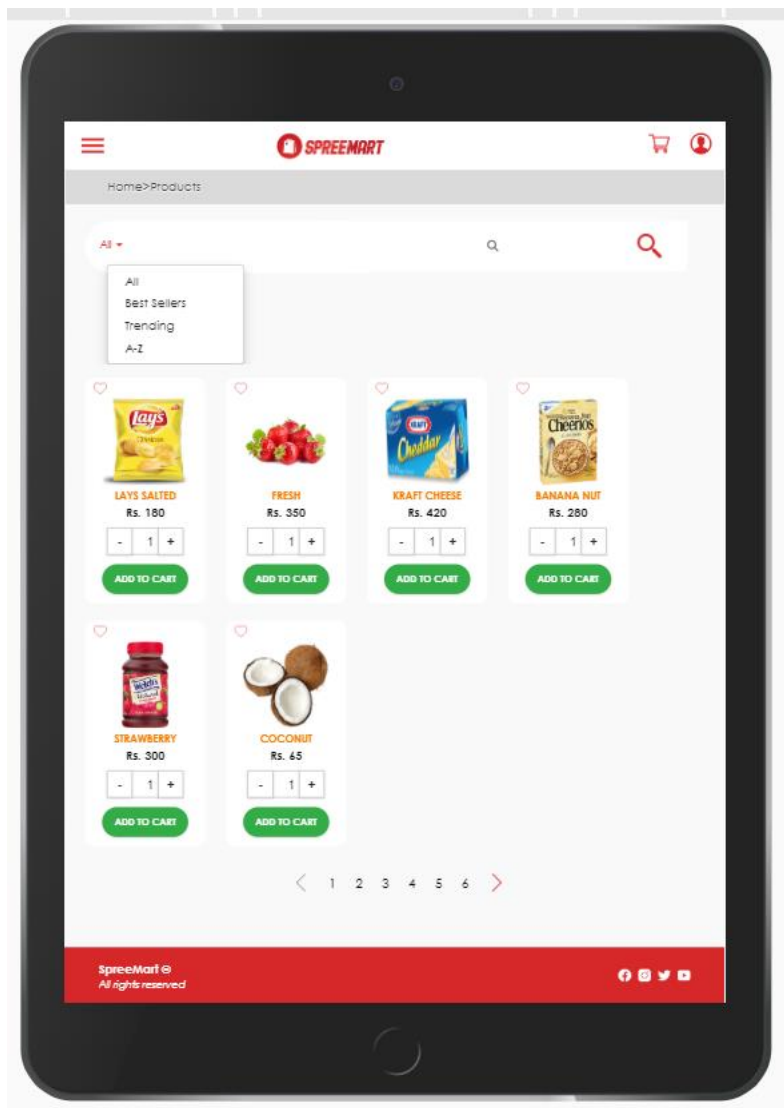
2.3 POI



2.4 List creation & sorting and filtering widgets

Lists have been used in the Navigation list that directs to specific product category pages and also Promotion and Support pages.





```
<div class="ui-grid-a product-grid">
    <div class="ui-block-a" style="width: 40%;">
        <div class="filter-wrapper">
            <div class="dropdown">
                <button class="dropdown-toggle" type="button" id="select-choice-1-
button" data-toggle="dropdown"><span class="dropdown-toggle-text">All</span>
                <span class="caret"></span></button>
                <ul class="dropdown-menu">
                    <li><a onclick="filterSelection('all')">All</a></li>
                    <li><a onclick="filterSelection('best')">Best Sellers</a></li>
                    <li><a onclick="filterSelection('trending')">Trending</a></li>
                    <li><a href="#">A-Z</a></li>
                </ul>
            </div>
        </div>
```

```

        </div>
    </div>
    <div class="ui-block-b" style="width: 60%;">
        <input type="text" name="search" id="searchFor" value="" data-type="search" />
        
    </div>
</div>

<div data-filter="true" data-input="#searchFor" class="container-pads">
    <div class="card best">
        <div class="heart-wrapper">
            
        </div>
        <div class="card-content">
            
            <div class="product-title">GOOD DAY COOKIES</div>
            <div hidden class="product-id">1</div>
            <div class="price">Rs.800.00</div>
            <div class="rating">
                
                
                
                
                
            </div>
            <div class="quantity">
                <fieldset class="ui-grid-b">
                    <div class="ui-block-a">
                        <a href="#temporary" data-role="button" id="minus">-</a>
                    </div>
                    <div class="ui-block-b">
                        <input type="number" name="quantity" id="quantity" value="1" />
                    </div>
                    <div class="ui-block-c">
                        <a href="temporary.html" data-role="button" id="plus">+</a>
                    </div>
                </fieldset>
            </div>
            <a href="#addtocartPopup" data-role="button" data-rel="popup" id="add-to-
cart">ADD TO CART</a>
        </div>
    </div>

    <div class="card best">

```

```
<div class="heart-wrapper">
  
</div>
<div class="card-content">
  
  <div class="product-title">BAD DAY COOKIES</div>
  <div hidden class="product-id">1</div>
  <div class="price">Rs.800.00</div>
  <div class="rating">
    
    
    
    
    
  </div>
  <div class="quantity">
    <fieldset class="ui-grid-b">
      <div class="ui-block-a">
        <a href="#temporary" data-role="button" id="minus">-</a>
      </div>
      <div class="ui-block-b">
        <input type="number" name="quantity" id="quantity" value="1" />
      </div>
      <div class="ui-block-c">
        <a href="temporary.html" data-role="button" id="plus">+</a>
      </div>
    </fieldset>
  </div>
  <a href="#addtocartPopup" data-role="button" data-rel="popup" id="add-to-
cart">ADD TO CART</a>
</div>
</div>
```

2.5 Booking form

The image shows two smartphone screens side-by-side, displaying the SPREEMART checkout interface. The left screen is the 'Checkout' page, and the right screen is the 'ORDER SUMMARY' page.

Left Screen: Checkout

Home > Checkout

RECIPIENT DETAILS

☒ Same as Personal details

Email*
savindujayasinghe@gmail.com

Title* First Name*
Mr. Savindu

Last Name*
Jayasinghe

Phone Number*
0778292738

DELIVERY DETAILS

☒ Same as Personal address

House No* Street Name*
67 anderson

Right Screen: ORDER SUMMARY

ITEM	QTY	TOTAL
LAYS SALTED	1	Rs.180
FRESH STRAWBERRIES	1	Rs.350
FRESH STRAWBERRIES	1	Rs.350
STRAWBERRY JAM	1	Rs.300
COCONUT	1	Rs.65
Sub Total		Rs. 1245
Discount		Rs.0.00
Net Total		Rs. 1245

PAYMENT DETAILS

☐ Pay on delivery

☐ Pay online

The image displays a mobile application interface for 'SpreeMart' on the left and a desktop version of the same form on the right. The mobile app shows a 'PAYMENT DETAILS' screen with options for 'Pay on delivery', 'Pay online', and 'Same as Payment details' (which is selected). It includes a Mastercard logo, a card number (2109 2844 1046 3409), the name on the card (Savindu Jayasinghe), the expiry date (07/20), and a security code field. A green 'PLACE ORDER' button is at the bottom. The desktop version shows the 'SpreeMart' logo, an email field (gayalie.2016093@iit.ac.lk), a card number field (5676 78), an expiry date field (08 / 12), a security code field (345), a 'Remember me' checkbox, and a large blue button labeled 'Pay LKR Rs1,245.00'.

//How did you implement connection to online payment ?

```
var handler StripeCheckout configure
key: 'pk_test_cp21BcECf4kMMUbsIRIZlsMo'
token: function token
if token id

if page "Checkout-iPad.html"

window location href 'Payment-successful-iPad.html'

if page "Checkout-iPhone.html"

window location href 'Payment-successful-iPhone.html'

// $(document).on("pagecreate", "#Checkout-page", function () {
```

```
// //setTimeout(function () { $("#p").popup("close"); }, 5000);  
// $("#successpop").popup("open");  
// });
```

```
$ '#place-order' on 'click' function e  
  handler open  
    name: 'SpreeMart'  
    currency: 'LKR'  
    amount: netTotal 100  
    // closed: () => { console.log("Hello") }
```

```
$ window on 'popstate' function  
  handler close
```

```
var handler StripeCheckout configure  
  key: 'pk_test_cp21BcECf4kMMUbSIRIZlsMo'  
  token: function token  
    if token id
```

```
if page "Checkout-iPad.html"  
  window location href 'Payment-successful-iPad.html'  
if page "Checkout-iPhone.html"  
  window location href 'Payment-successful-iPhone.html'
```

```
$ '#place-order' on 'click' function e  
  handler open  
    name: 'SpreeMart'  
    currency: 'LKR'  
    amount: netTotal 100  
  $ window on 'popstate' function  
    handler close
```

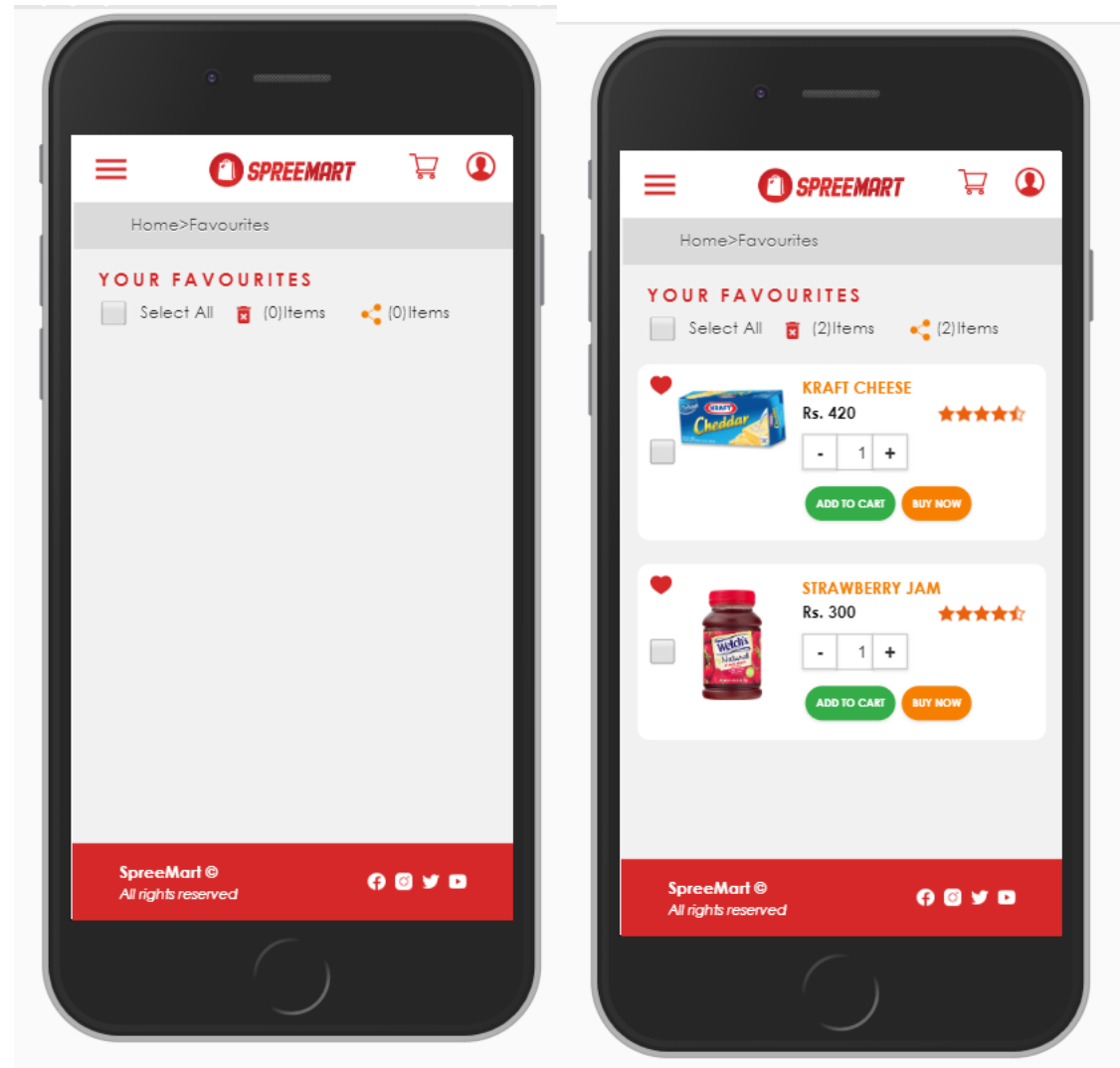


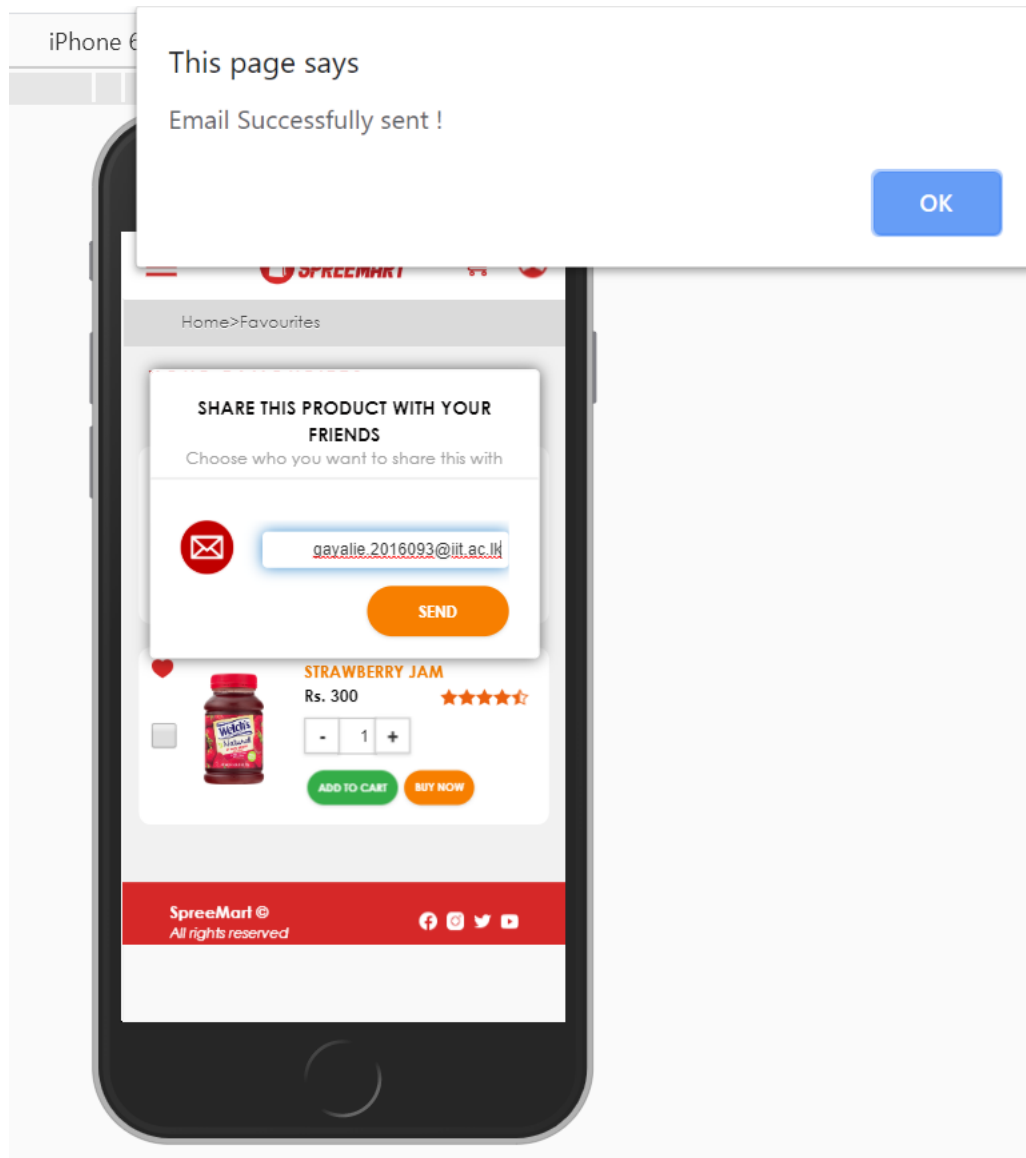
```
if token id
```

```
    if page      "Checkout-iPad.html"
        window location href  'Payment-successful-iPad.html'
    if page      "Checkout-iPhone.html"
        window location href  'Payment-successful-iPhone.html'
```

```
<div class "payment-card">
  <div class "img-wrapper">
    <img id "pay-image" src "Images/paid.png">
  </div>
  <div class "title">
    [REDACTED]
  </div>
  <div class "button-wrapper">
    <a href "#temporary" data-role "button" id "continue-
from"> [REDACTED] </a>
  </div>
</div>
```

2.6 Favourites list





```
$(document).ready(function () {  
  
    const IDs = localStorage.getItem("FavouritesList");  
    var noOfItems;  
    var FavouriteIDList  
  
    if (IDs.length != 0) {  
        FavouriteIDList = IDs.split(",");  
        noOfItems = FavouriteIDList.length;  
    } else {  
        FavouriteIDList = []  
        noOfItems = IDs.length;  
    }  
})
```

```
document.getElementById('share-txt').innerHTML = '(' + noOfItems + ')' + 'Items';
document.getElementById('delete-txt').innerHTML = '(' + noOfItems + ')' + 'Items'
```

```
var ProductImgLinks = [
  {
    "product_id": "1",
    "link": "https://i.ibb.co/n7TpH85/lays.png",
  },
  {
    "product_id": "2",
    "link": "https://i.ibb.co/51Px6NZ/strawberry.png",
  },
  {
    "product_id": "3",
    "link": "https://i.ibb.co/mvM5VN4/cheese.png",
  },
  {
    "product_id": "4",
    "link": "https://i.ibb.co/h7p7DsQ/cheerios.png",
  },
  {
    "product_id": "5",
    "link": "https://i.ibb.co/hKJdTJN/jam.png",
  },
  {
    "product_id": "6",
    "link": "https://i.ibb.co/Mpb7kwt/coconut.png",
  },
  {
    "product_id": "7",
    "link": "https://i.ibb.co/6tXb3Tb/corn.png",
  },
  {
    "product_id": "8",
    "link": "https://i.ibb.co/sKXFhtt/handwash.png",
  },
  {
    "product_id": "9",
    "link": "https://i.ibb.co/JxdSnxT/noodles.png ",
  }
]
```

```
for (favouriteID of FavouriteIDList) {
  for (var i = 0; i < Products.length; i++) {
```

```

if (Products[i].product_id === favouriteID) {

  const CartHTML = '<div class="ui-grid-b card">' +
    '<div class="ui-block-a left-wrapper">' +
    '<div class="heart-wrapper">' +
    '' +
    '</div>' +
    '<div class=" ui-checkbox"><input type="checkbox" name="checkbox-mini-
0" id="checkbox-select-all" data-mini="true">' +
    '</div>' +
    '</div>' +
    '<div class="ui-block-b middle-wrapper">' +
    '' +
    '</div>' +
    '<div class="ui-block-c right-wrapper">' +
    '<span class="producttitle">' + Products[i].title + '</span>' +
    '<div hidden class="product-id">' + Products[i].product_id + '</div>' +
    '<br>' +
    '<span class="price"> Rs. ' + Products[i].price + '</span>' +
    '<span class="rating1">' +
    '' +
    '' +
    '' +
    '' +
    '' +
    '</span>' +
    '<div class="quantity1">' +
    '<fieldset class="ui-grid-b">' +
    '<div class="ui-block-a">' +
    '<a href="#temporary" data-role="button" id="minus1" class="ui-link ui-btn ui-
shadow ui-corner-all" role="button">-</a>' +
    '</div>' +
    '<div class="ui-block-b">' +
    '<div class="ui-input-text ui-body-inherit ui-corner-all ui-shadow-
inset">' + '<input type="number" name="quantity" id="quantity1" value="1">' + '</div>' +
    '</div>' +
    '<div class="ui-block-c">' +
    '<a href="temporary.html" data-role="button" id="plus1" class="ui-link ui-btn ui-
shadow ui-corner-all" role="button">+</a>' +
    '</div>' +
    '</fieldset>' +
    '</div>' +
    '<a href="#temporary" data-role="button" id="add-to-cart" class="ui-link ui-btn ui-
shadow ui-corner-all" role="button">ADD TO CART' + '</a>' +

```

```
    '<a href="#temp" data-role="button" id="BuyNow1" class="ui-link ui-btn ui-shadow ui-corner-all" role="button">BUY NOW' + '</a>' +  
    '</div>' +  
    '</div>'
```

```
        document.getElementsByClassName('card-area')[0].innerHTML += CarHTML;  
        break;  
    }  
}  
}
```

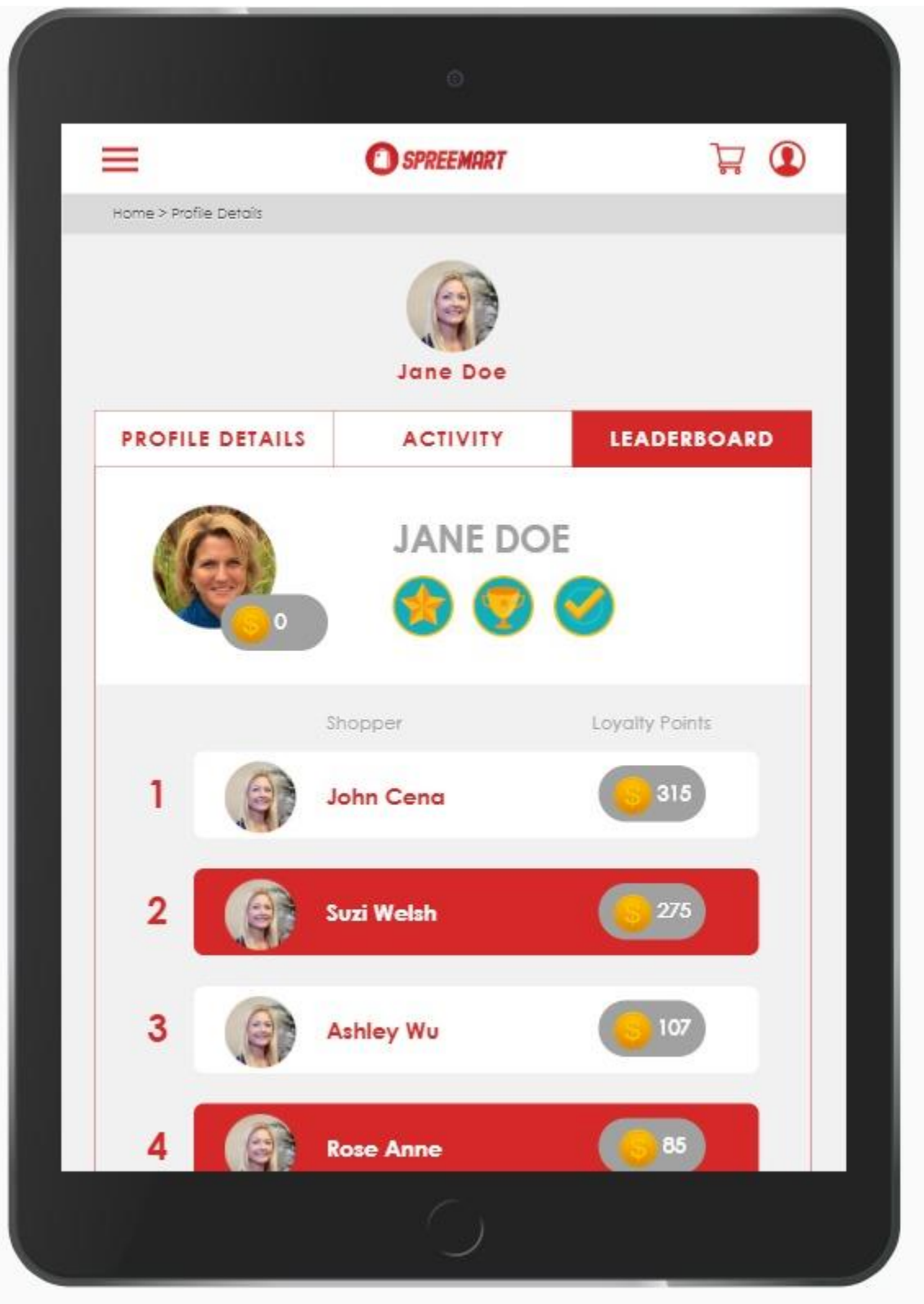
```
$(".heart-icon").click(function () {  
    var prodID = $('.product-id').eq($('.heart-icon').index(this)).text()  
    for (var i = 0; i < FavouriteIDList.length; i++) {  
        if (FavouriteIDList[i] === prodID) {  
            FavouriteIDList.splice(i, 1);  
        }  
    }  
    localStorage.setItem('FavouritesList', FavouriteIDList);  
    location.reload();  
});
```

```
$('#submit-mail').click(function () {  
    var emailToSend = $('#mail-to').val();  
    for (EmailfavouriteID of FavouriteIDList) {  
        for (var i = 0; i < Products.length; i++) {  
            if (Products[i].product_id === EmailfavouriteID) {  
                var Emaildata = {  
                    "from": {  
                        "email": "spreemart1@gmail.com"  
                    },  
                    "personalizations": [  
                        {  
                            "to": [  
                                {  
                                    "email": emailToSend  
                                }  
                            ],  
                            "dynamic_template_data": {  
                                "Prod_title": Products[i].title,  
                                "prod_img": ProductImgLinks[i].link,  
                                "Prod_Price": Products[i].price  
                            }  
                        }  
                    ]  
                }  
            }  
        }  
    }  
});
```

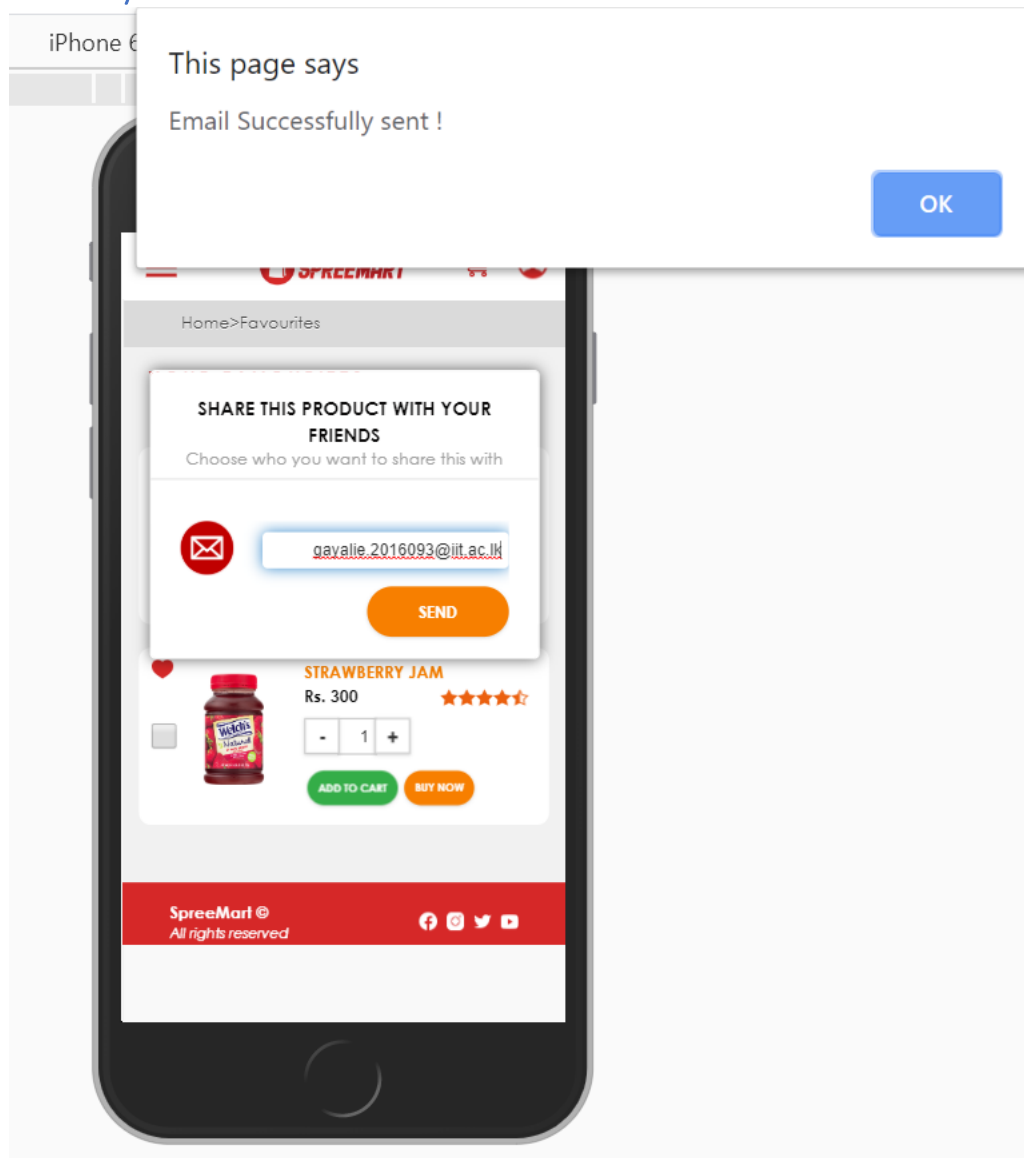


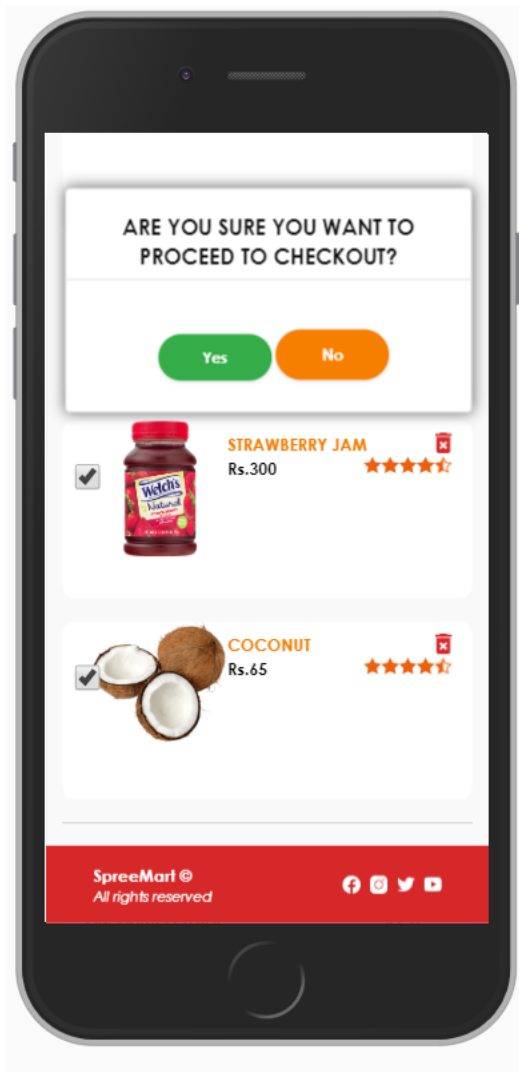
```
    }],  
    "template_id": "d-04a9d735ed454201a08f2700b86a26b7"  
  }  
  break;  
}  
}  
  
$.ajax  
(  
  type: "POST",  
  url: "https://api.sendgrid.com/v3/mail/send",  
  contentType: "application/json; charset=utf-8",  
  async: false,  
  data: JSON.stringify(Emaildata),  
  beforeSend: function (xhr) {  
    xhr.setRequestHeader('Authorization', "Bearer SG.mffB11TbTAmkCEzzVnE_gQ.kD3uHc9rDW  
au6zwYgeCEuw_dH1X41yNeLa6894u6m_Q ");  
  },  
  success: function () {  
    alert('Email Successfully sent !');  
  }  
});  
  
}  
  
});  
  
});
```

2.7 Gamification



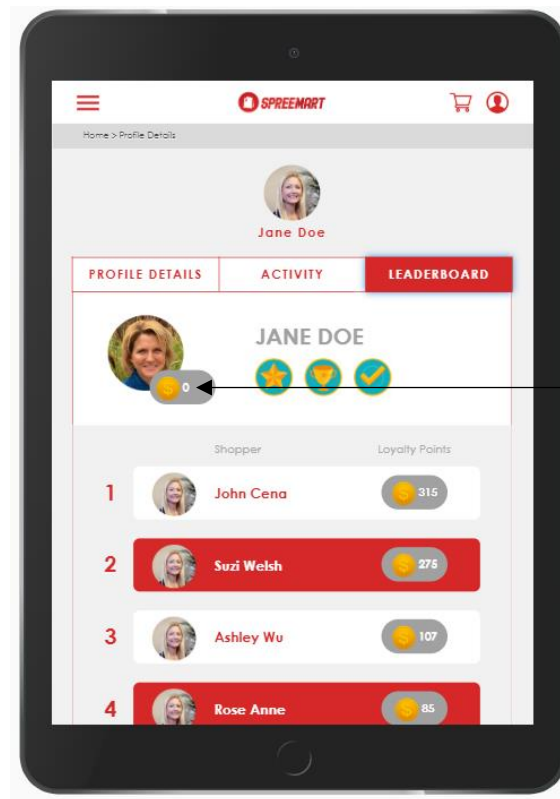
2.8 System feedback



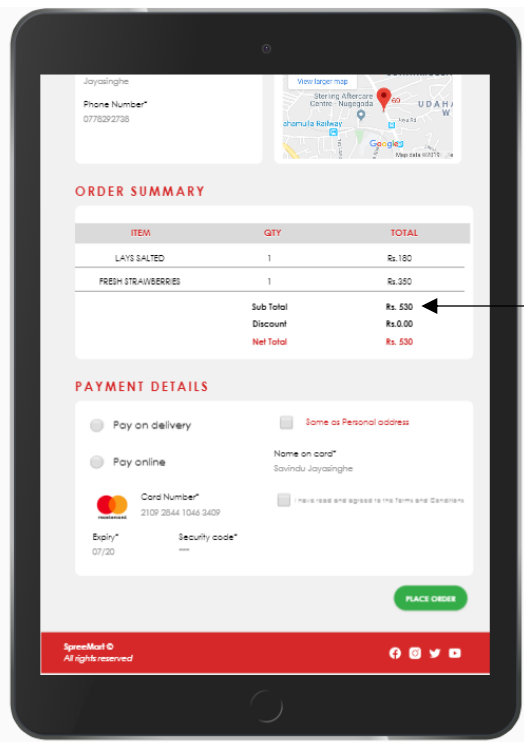


2.9 Scores & points gained

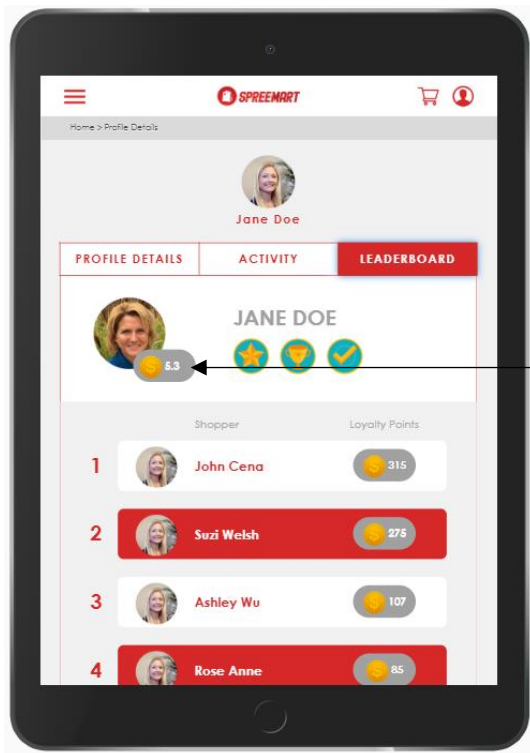
Loyalty points are awarded to a user based on the Sub Total of the products he purchases. For every Rs. 100 spent, the user gains 1 loyalty point(score). This is calculated once the user checks out, and his/her score in the leaderboard is updated with the new points gained.



Initially the user has a score of zero, before purchasing any items



The user checks out with a sub total of Rs. 530.00



The user's loyalty score is updated as he gained 1% of his subtotal as his loyalty score

Code:

Javascript

```
$(document).ready(function () {
  let subtotal = localStorage.getItem("Subtotal");
  var LeaderScore = localStorage.getItem("Leaderscore");
  var currentscore;
  var score;
  if (LeaderScore === null) {
    currentscore = 0;
  } else {
    currentscore = LeaderScore;
  }
  score = subtotal / 100;
  currentscore = currentscore + score;
  localStorage.setItem("LeaderScore", currentscore);
  document.getElementsByClassName('leader-score')[0].innerHTML = currentscore;
});
```

HTML

```
<div id="leaderboard" class="ui-body-d ui-content">
  <div class="loyalty-tier-wrapper">
    <div class="ui-grid-a leaderboard-top-grid">
```

```

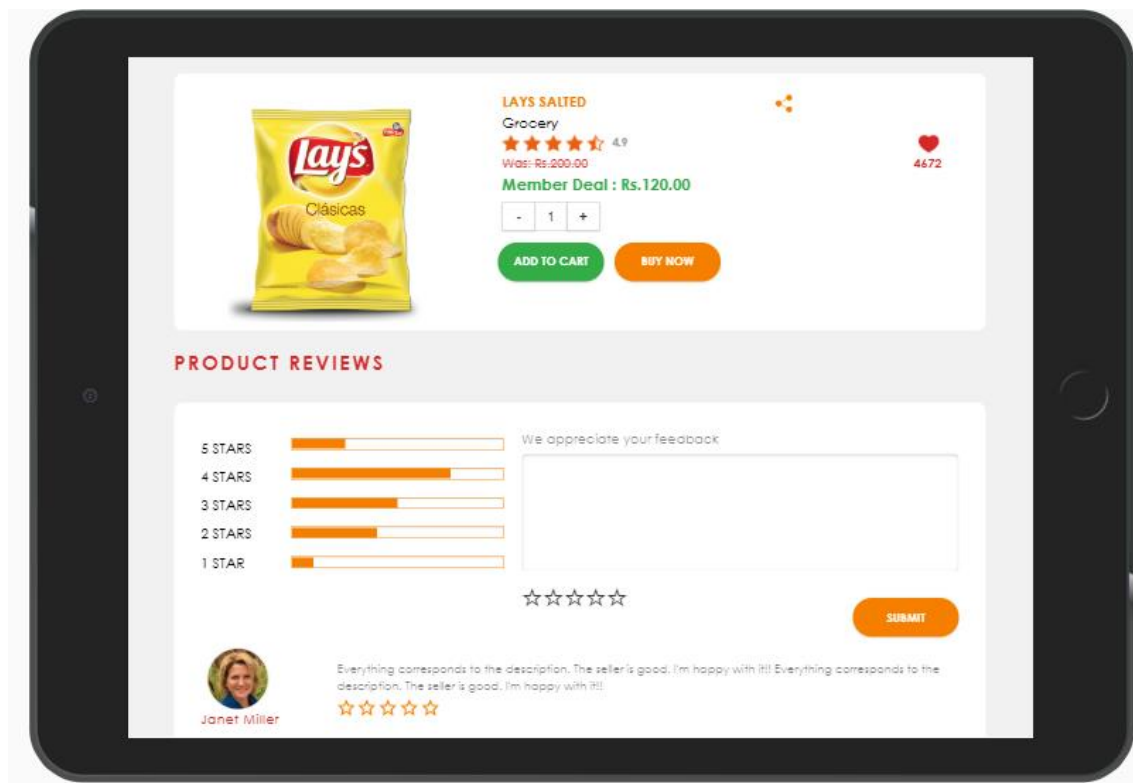
<div class="ui-block-a leaderboard-rank-1">
  

  <div id="coin-wrapper">
    
    <span class="leader-score">

    </span>
  </div>
</div>
</div>
</div>
</div>
</div>

```

2.10 Comments



```

<div class="ui-block-b product-review-block">
  <div class="appreciate-text">
    We appreciate your feedback
  </div>
  <input type="text" id="comment-box">

```

```
        <div class="button-wrapper">
            <a href="#temporary" data-role="button" id="submit-
review" onclick="handleSubmit()">SUBMIT</a>
        </div>
    </div>
    <div id="comment-list">
</div>
```

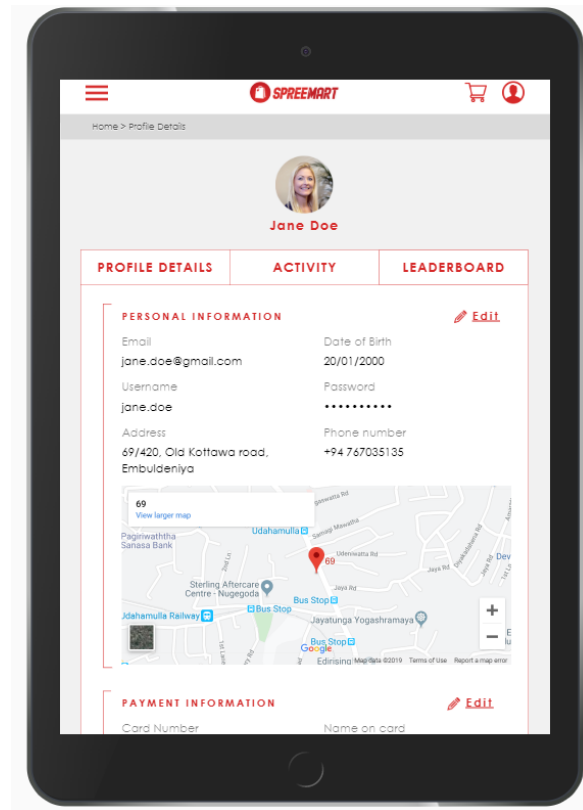
```
function handleSubmit() {
    const comment = document.getElementById("comment-box").value;
    document.getElementById("comment-box").value = "";
    let currentComment = localStorage.getItem("comment");
    let newComment = "";
    if (!currentComment) {
        newComment = `${comment}`;
    } else {
        newComment = `${currentComment},${comment}`;
    }

    localStorage.setItem("comment", newComment);

    const commentArray = newComment.split(",");
    const commentHTML = commentArray.map((cmt) => {
        return `<div class="ui-grid-a" style="margin-bottom: 10px;">
<div class="ui-block-a comment-pic-block">
    
    <div class="commenter-name">Janet Miller</div>
</div>
<div class="ui-block-b comment-block">
    <div class="comment">
        ${cmt}
    </div>
</div>
</div>`;
    });

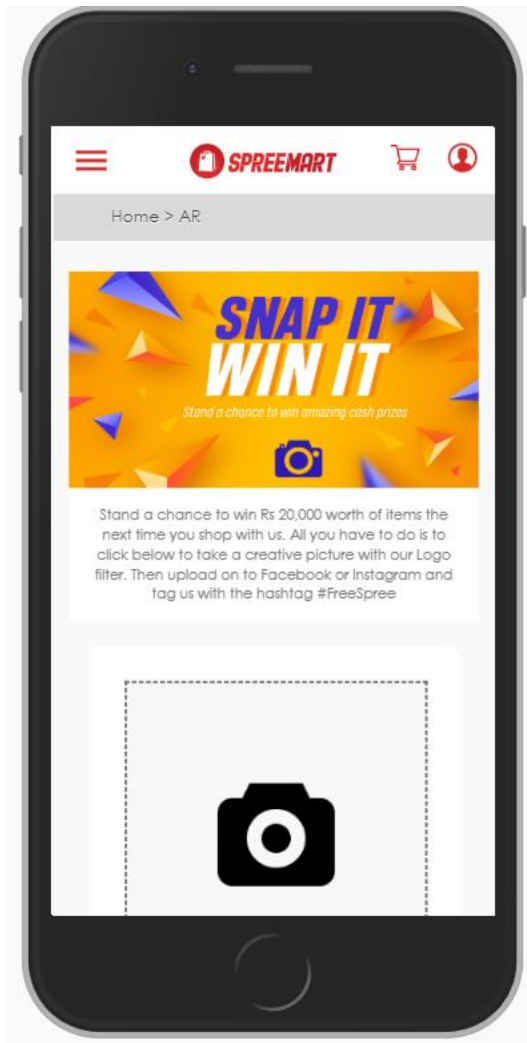
    const commentList = document.getElementById("comment-list");
    commentList.innerHTML = commentHTML;
}
```


2.11 Google maps



```
<div class="ui-grid-a google-maps-area">
<iframe width="610" height="280" id="gmap_canvas" src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d3961.22524976987!2d79.91029571437664!3d6.863587495040019!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x3ae25a7be9542ee9%3A0x33249104fc164e83!2s69%2C%20420%20Old%20Kottawa%20Rd%2C%20Nugegoda!5e0!3m2!1sen!2slk!4v1576429053645!5m2!1sen!2slk"frameborder="0" scrolling="no" marginheight="0" marginwidth="0"></iframe>
</div>
```

2.12 AR



```

<div id='container' style="height:812px;width:375px;">
  <a-scene embedded arjs='sourceType: webcam;'>

    <a-assets>
      
    </a-assets>

    <a-image src="#AR-image"></a-image>

    <a-marker-camera type='pattern' url='Images/pattern-home.patt'></a-
marker-camera>

    <a-camera-static />

  </a-scene>
</div>

```

References

Provide references to resources you may have used

<https://www.thekitchn.com/outsmart-food-label-colors-while-you-shop-tips-from-the-kitchn-208689>

<https://smallbusiness.yahoo.com/advisor/truth-best-worst-call-action-button-colors-website-212506540.html>

<https://www.interaction-design.org/literature/article/the-power-of-white-space>

<https://designmodo.com/sans-serif-fonts/>

https://en.wikipedia.org/wiki/Century_Gothic

<https://uxplanet.org/bright-colors-in-ui-design-benefits-and-drawbacks-433680f0a1c7>

<https://uxplanet.org/what-you-need-to-know-about-gestalt-principle-c440f5d7fc1d>

<https://www.toptal.com/designers/ui/gestalt-principles-of-design>