Collaborative Shopping

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Problem Statement

Shopping is a social activity in which a group of people view the product and discuss about the product before buying it.

Discussions and reviews make the buyer more comfortable in buying the product. Also people try the product on them to know how it looks on them.The same ideology applies to Online Shopping as well.

However, the online experience does not mimic the offline experience especially when shopping with someone or collectively gifting someone.Till now no good work exists that enables a customer to perform interactive real time co-shopping along with a try on feature.

Proposed Solution

The idea is to mimic the real life shopping in an online website by allowing the users to track their friends and know what they are looking for and also ask for suggestions via chat about the product they choose .

We are trying to build a collaborative shopping platform with these unique features :

- The users have the ability to privately invite people who use the shopping application by sending an invite and upon acceptance they can enjoy the shop-together facilities.
- The user can also add friends they trust to be “online shopping buddies” by sending them a join request.
- They also have a chat platform among the people shopping together so that they can share images of the product, gif, reactions and also vote for a product among the ones they have chosen.
- The users have the feature of viewing the product their friend/shopping buddy is viewing/considering to buy.For certain fashion products like beauty & personal health care products and certain jewelleries, the user can try on their face and share it with friends for opinion.
- The map/layout feature shows which section of the shop their friend is at, in real time. This simulates a real-life group shopping experience.
- User can share their cart with their shopping buddy, where both the user and the shopping buddy can edit/modify the cart.
- Anyone with the common cart can make payment and intimation about the payment process of the common cart will be sent to everyone sharing the cart and anyone with the common cart can see the delivery status as well.

Solution deep-dive

- **Website Creation :** We plan to create a small scale version/clone of Myntra (e-commerce) website using HTML, CSS and JS for frontend and use MongoDB for storing user information, product information, etc.(user database).
- **Invite friends :** Whenever a user adds another user as a “friend/shopping buddy” using their username, a request goes to that friend and they can accept or decline.
- **Shop Together :** For shopping together, the user can add another user from the friends list or send the invite link to them personally. This will create a common cart for them in the database with the edit access to both the members. (cart Database)
- **Map :** A layout/map of the Myntra store is displayed and the user can see his avatar and the other people who are shopping with him (who accepted his request or joined the link). Now a database with the link is created.
- **See the friend’s page :** To see the product the friend is also seeing, the unique link is used. In the database with the common link, the link, username, timestamp, sourceid and action-performed is stored so that the next page clicked by that user(captured by ajax framework) can be updated and displayed when the user clicks on the avatar of his friend.
- **View the product :** If the friend is seeing a product), then the user has the option to just see the zoomed version of the same product. If the user is seeing multiple products only recently viewed is displayed.
- **Try the product :** The user can try on certain products like lipstick, jewellery and for all this WebGL and Neural Networks is used.Neural networks is used to detect the face(on face products can be trialed) and apply the product on the face.The product which are available as a 3D model will be used here to apply it on the person.

Overview of Map feature in “Shop Together”

React JS
Framework

mongoDB
Database

AJAX
Ajax to implement the map feature

WebGL
WebGL and neural networks to implement the try-on product feature

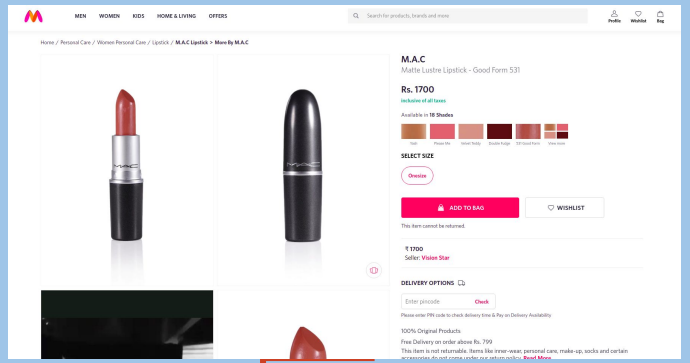
Technology Stack

HTML CSS JS
Front-end

Express JS
Backend

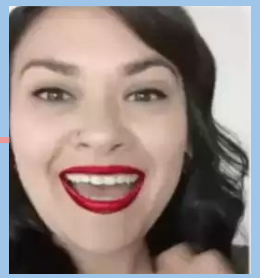
Client/server and routing

netlify
Hosting Application



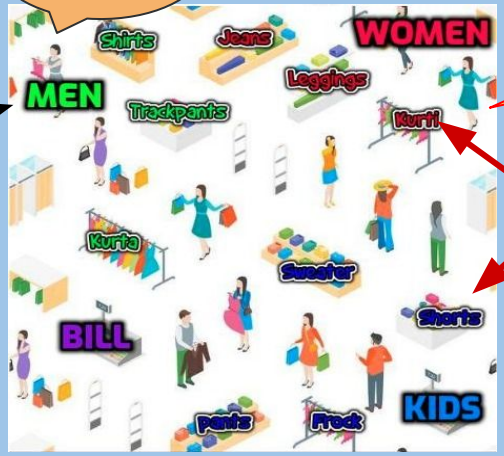
XYZ is looking at **Bracelets**

[Go to the product](#)
[View in AR](#)
[View the product](#)



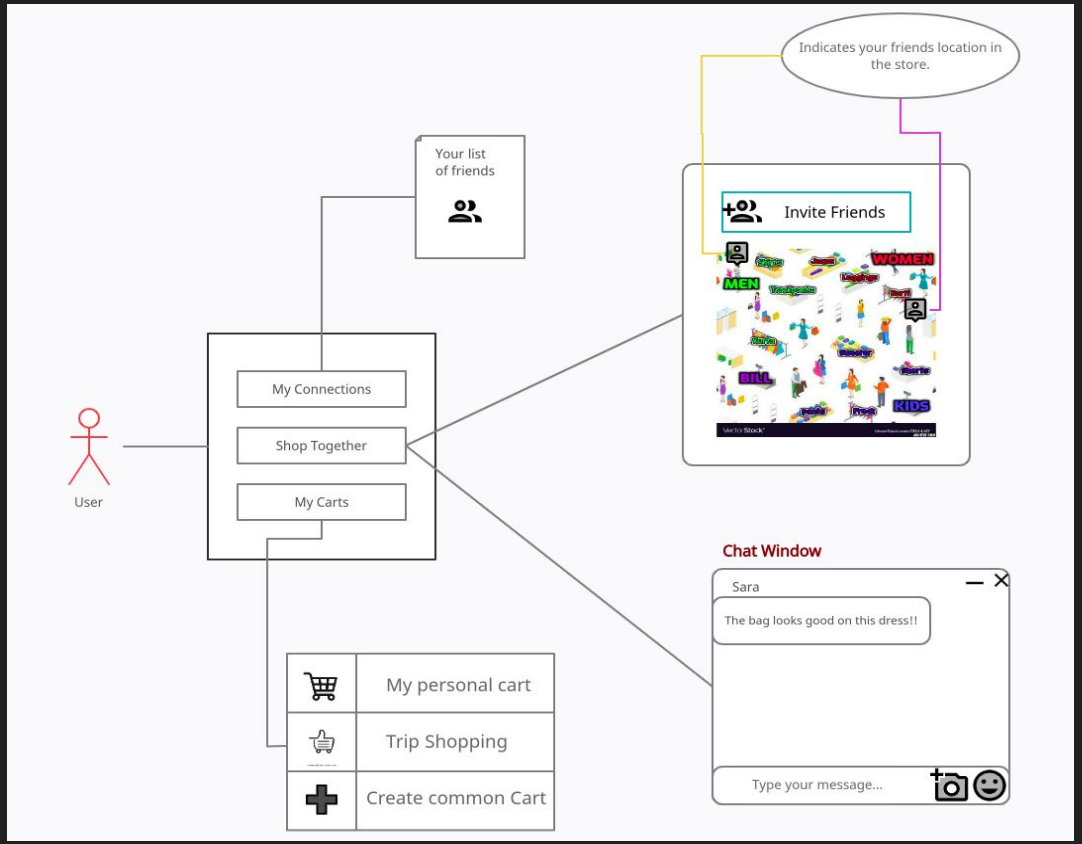
Avatar for users

Categories



Sub-Categories

Implementation



- Through the 'My connections' option the user will be able to view a list of all his connected friends and see if they are online or offline.
- Through the 'Shop Together' option the user will be able to invite friends and as the invitation is accepted by his friends they can be located in the visual map of the store. On hovering over a friends avatar icon in the store map the user is given three options : i) to view the product what the friend is viewing ii)go to that product's page iii) See the try on feature (available only for some products).
- Chat or Group chat with friends feature
- Facility to create a common shared cart where all the members of the group to whom the cart is shared with can perform all kind of operations in it. All the common carts created are shown next to the personal cart of the user.

Impact :

- There are a lot of times when friends want to collectively buy and give a common gift. In such a circumstance, this co-shopping will be a blessing in disguise.

- The shoppers will get a real time shopping experience as though they are shopping along with their friends / family.
- When shoppers engage in collaborative sessions, they tend to view a greater number of products than when they shop alone, exchange ideas, and engage in real conversations, just as they do in a physical store. The entire visit quickly becomes an experience rather than just a transaction.
- Collaboration technology has the potential to capture "engagement" business intelligence such as buying sentiments (like, don't like, maybe, etc) and preferences (too expensive, wrong color, too far, etc.). This information can then be used for targeting and personalization.