

UI-UX Design, Survey, Study

Executive Summary

In this study, we had 12 participants visit the Wish e-commerce website to buy items like shoes and jackets with specific requirements and also use the wishlist and cart functionality. The original website was slowing down the users with an unnecessary login prompt. In addition to that, we also found that the time taken by the users to find the required product was longer due to lack of categorization and non-availability of filtering and sorting functionalities. The findings from the study are that by implementing filtering and sorting functionality in the product page and eliminating the login prompt at the home page, the average time spent to complete the tasks was almost reduced to half the time. The users found it very easy to navigate through the redesigned website compared to the original website.

Method

Who we tested

Twelve participants, out of which six were included in the testing of the original website and the other six were included in the testing of the redesigned website. All the participants are students of ASU and doing their graduate studies in the field of Computer Science, IT and Electrical. 8 of the 12 participants are of the age range 22-25 and the rest 4 of the participants were in the range 26-29. All the participants have good knowledge of handling computers and using e-commerce websites.

Audience Type	
New Wish Users	10
Existing Wish Users	2
TOTAL (participants)	12

Computer Usage	
0 to 10 hrs. wk.	3
11 to 25 hrs. wk.	7
26+ hrs. wk.	2
TOTAL (participants)	12

Age	
18-25	8
26-39	4
TOTAL (participants)	12

Gender	
Women	4
Men	8
TOTAL (participants)	12

What participants did

Each of the Twelve participants worked on two tasks, 6 on the original and 6 on the redesigned website. Each one of them took around 10 minutes to complete both tasks. Several metrics were studied based on the tasks they performed which we will discuss in the next section. The two tasks that participants performed were:

Task 1:

Book a white shoe of size 11/M. We need to select 5 shoes which fall in the price range of 90-120 dollars and wish list them. After selecting five shoes we need to remove four of them and add the remaining to the cart. We need to update the address in the payments page and select the express delivery option.

Task 2:

Book a fleece black leather jacket of size XL. For this we need to add 3 distinct cheaply available fleece black jackets and select the option in store. Then we need to remove two of them and buy the remaining one.

What metrics we collected

The metrics we collected are as follows:

Time on task

This metric is the time based metric. It is the time the user spends for task completion. It is useful in measuring the efficiency of the application. In our case we want to reduce the time on task by our design changes.

Lostness

The lostness metric can show how dissatisfied your customers are with your product. The metric itself is straightforward, ranging from zero to one. A high level of lostness indicates that users are having difficulty finding what they are looking for. A low score indicates the opposite, that they can easily find what they are looking for.

We have used the following formula to calculate the lostness:

$$L = \sqrt{(N/S-1)^2 + (R/N-1)^2}$$

L = Lostness

N = The number of different screens visited during the task.

S = The total number of screens visited during the task.

R = The minimum number of screens that must be visited to complete a task.

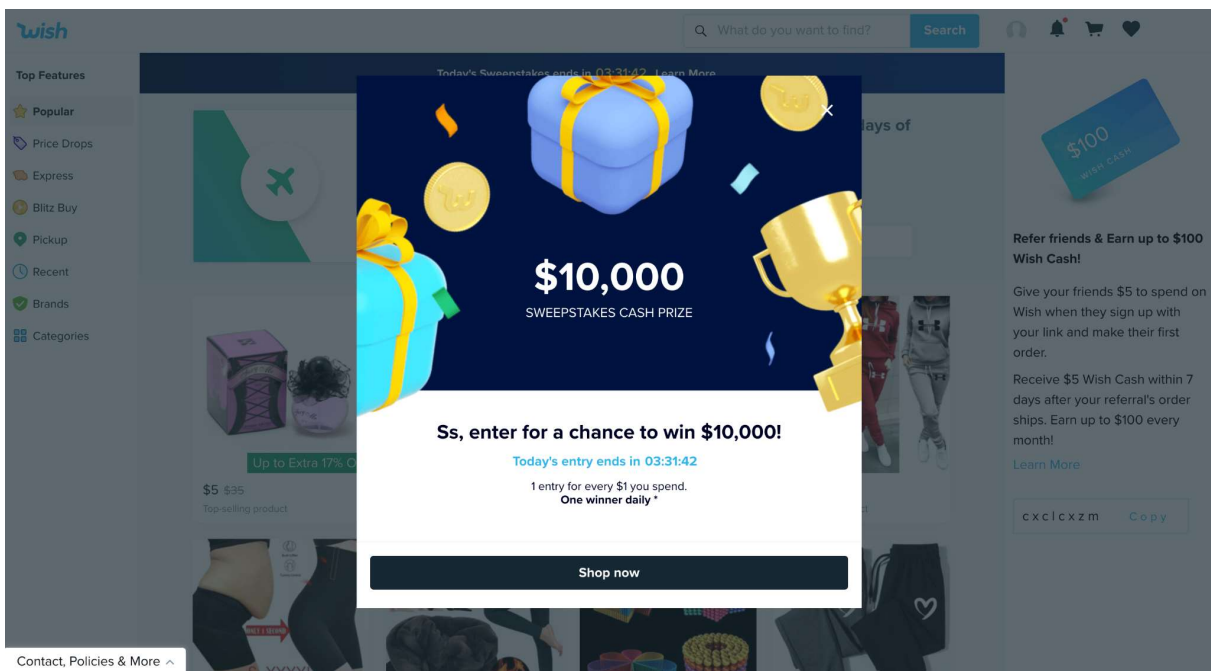
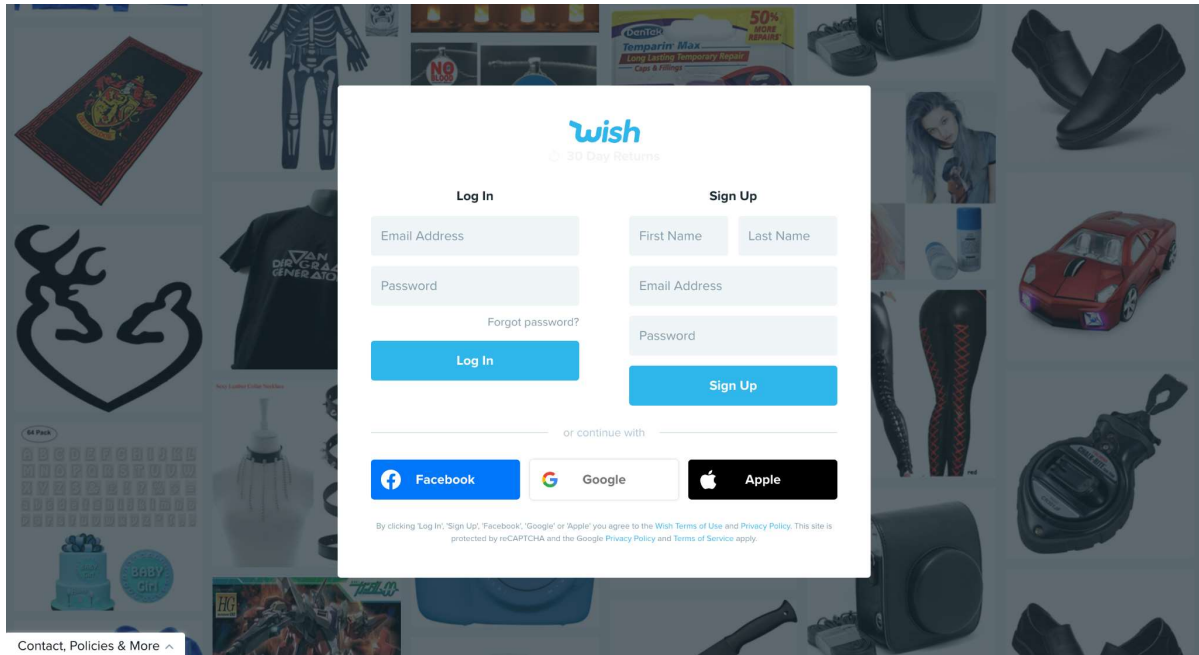
Errors

This is one of the simplest usability test metrics. It is a self-explanatory metric, it is the errors the users make during the task completion such as entering wrong data, making wrong choices or actions, not following the correct sequence of steps and more. When we see errors in usability tests, we try to figure out what caused them.

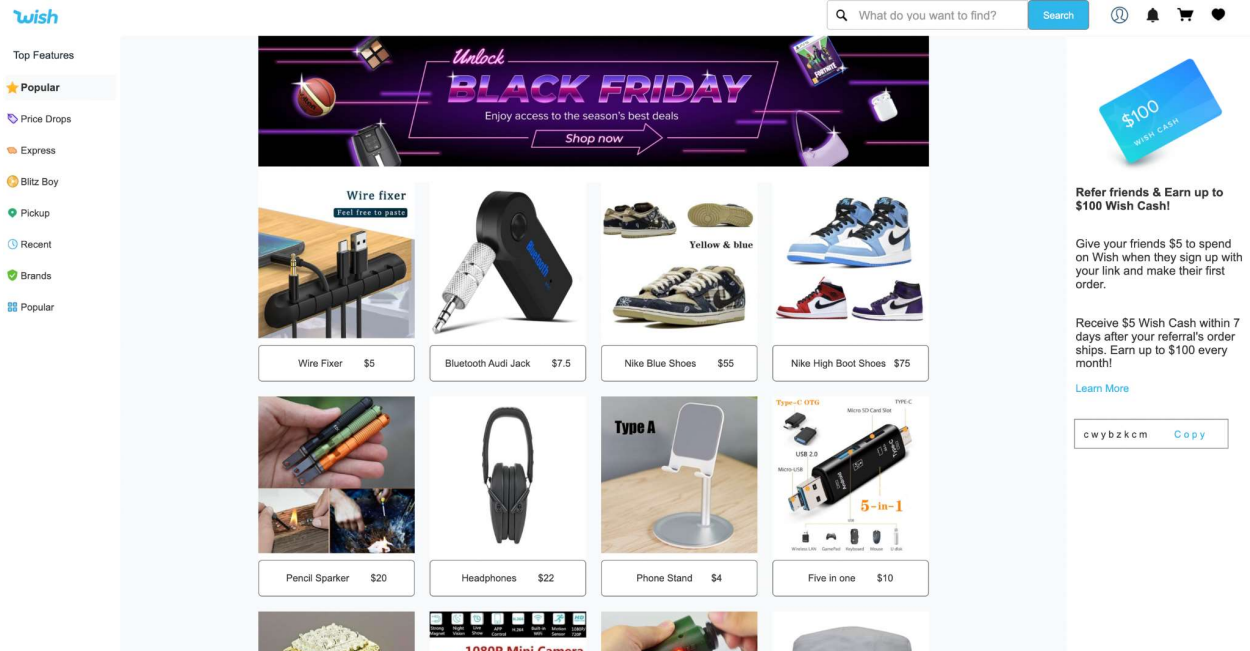
What improvements were made to the site

Homepage : Minimal Barriers and Points of Prospect

The basic necessities of a website homepage are clear points of prospect and minimal barriers. It should be able to guide the users to determine where they need to go without getting blocked. The original website homepage design is very poor in the sense that the user is not able to see the products unless they Log In / Sign Up to the website. There is another barrier of offers before the user actually gets to see the product home page as shown below. The redesigned website addresses this issue by eliminating the login prompt and the pop up offer screen by directly displaying the products home page.



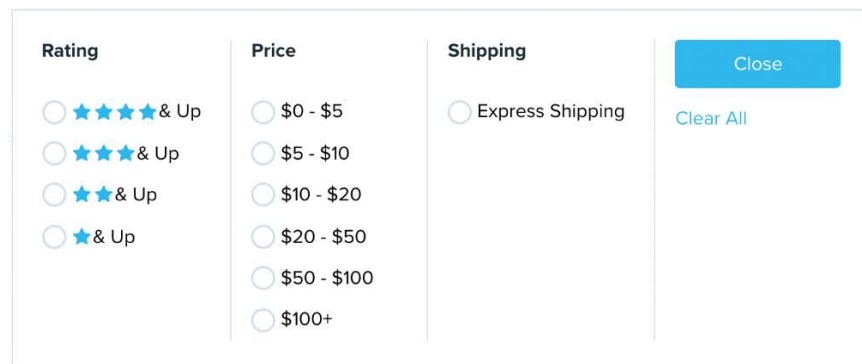
Original - Home Page



Redesign - Home Page

Filtering and Sorting : Ensure Usable Filtered Results

The results of user searches and filters should be very clear and provide accurate information being queried. The results should match the user's expectations. On the original website, if the user wants to filter the products based on a certain criteria, the website does not have the option to do so. The filtering functionality is very basic and is not helpful in performing the tasks provided to the user in the study. The site also lacks the sorting functionality. The redesigned website fixes this issue by including filtering criteria based on the product being searched for and it also has an option for sorting the results based on price, relevance, etc. This helps the user to reduce the time taken to search for the precise product meeting all the expectations.



Original - Filtering

Nike

Nike Shoes for men air max

Nike Shoes for men air max

Nike Shoes for men air max

Price

☐ \$0-\$5
 ☐ \$5-\$10
 ☐ \$10-\$100
 ☐ \$100-\$500
 ☐ \$500+

-

Size

☐ 6
 ☐ 7
 ☐ 8
 ☐ 9
 ☐ 10
 ☐ 11
 ☐ 12

Colour

☐ White
 ☐ Red
 ☐ Yelloow
 ☐ Blue
 ☐ Black

Shipping

☐ Express Shipping

Apply

Clear All

Sort

☐ Price: Low to High
 ☐ Price: High to Low
 ☐ Relevance
 ☐ Featured

Redesign - Filtering and Sorting

Product Pages : Functionality and Naming

Another important feature is the functional consistency and naming conventions. The functionality of a button/feature should be aligned with the name specified for it. The original website has a button called “Buy” on each of the product pages but when the user clicks on it, the product is added to cart instead of taking the user to the payments page. The redesigned product page has the button named as “Add to Cart” and it aligns with the functionality of the button i.e., it adds that particular product to the cart.

Winter Fur Boots Women's Plush Warm Platform Ankle Boots Shoe Side Zipper Buckle Woman High Heels Fashion Shoes Black White

★★★★★ (34 reviews)

\$23 🚚

Klarna.

4 interest-free payments of \$5.75. [Learn more](#)

Size:

35 ▼

Color:

White ▼

Only 4 left!

0 3 : 4 5

Instant offer: Add to cart right now to unlock a lower price!

Buy

♡

Add to Wishlist

Original - Button Functionality

Jamickiki 2018 Brand Swag Pullover Hoodies Hooded Men Hoodies Fleece Warm Pullovers Sweatshirts Quality Cotton Mens Hoodies

★★★★☆ (8859 reviews)

\$13

Size:

XS ▼

Color:

Red ▼

Only 12 left!

Add to Cart

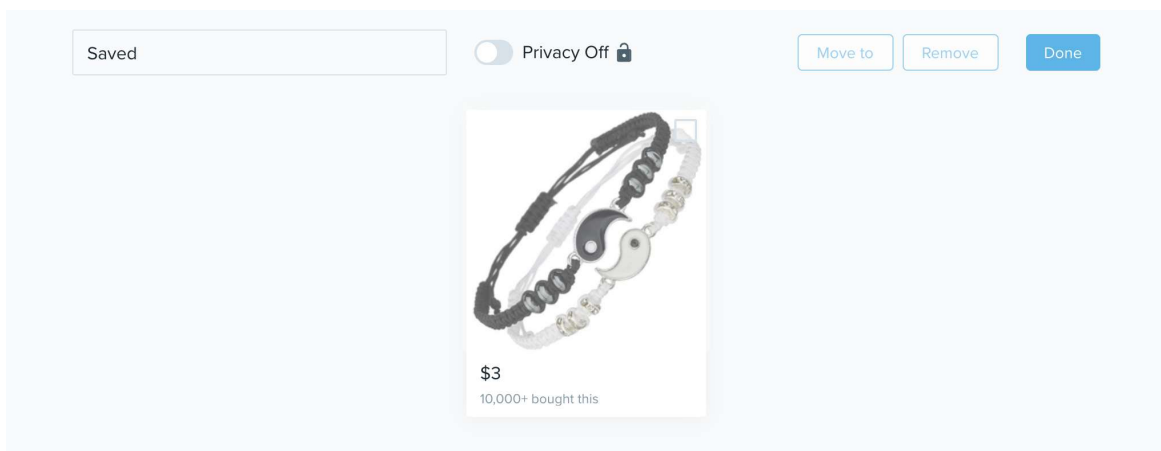
♡

Add to Wishlist

Redesign - Button Functionality

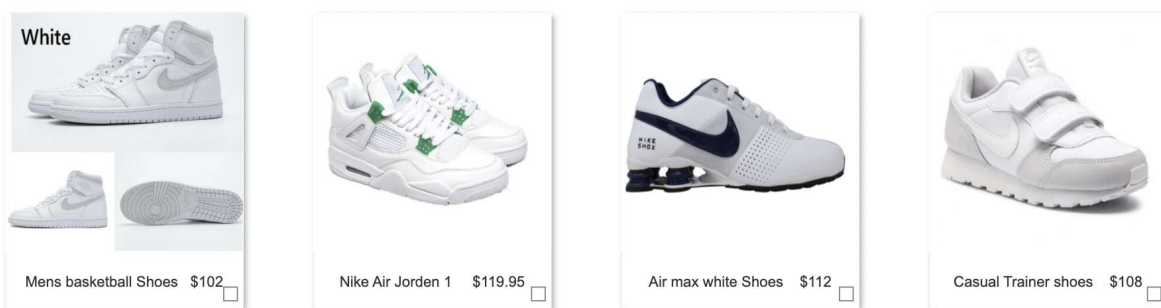
Wishlist Page : Aesthetic Usability Effect

The users of a website generally tend to perceive the more aesthetically pleasing designs as easier to use than the less aesthetic ones. This is known as the aesthetic usability effect. The simpler the website design is, the better the user experience will be. The removal of products from the wishlist in the original website has lots of buttons and the checkbox is not visible to the user to select the products. The user gets confused on what to click after selecting the products to be removed. This has been improved by providing only one button when the user tries to remove products from the wishlist in the redesigned website. This makes it easy for the user to remove the products and proceed with other tasks without getting distracted by the other buttons.



Original - Wishlist

Wishlist



Redesign - Wishlist

Cart Page : Control and Customization

The users should be able to control the functionality of a system and should be able to customize based on their needs. A general user who has used e-commerce sites before will be familiar with the shipping options and would expect the site to have similar functionality. In the

original site, the shipping option for standard/express shipping or ship to store has to be selected while the product is added to the cart. It is not available at checkout. This was improved in the redesigned site where the user has an option to choose from one of the available shipping options.

Items In Cart



Fashion His and Hers Couple Rings AAA Cubic Zirconia Black Gold Filled Women Ruby Rings and Titanium Steel Ring Men Jewelry Diamond Ring Vintage Promise Ring Surprised Gift

\$0.84

Size Men 6
Shipping: \$1
(Dec 12 - Dec 28)

1 ▼

[Remove](#)

Original - Cart

Items In Cart



Men's Fashion Hoodie Fall/Winter Hooded Sweatshirt Casual Jacket Outwear Sweater Top for Men

\$5

Black, Size XL
Shipping: \$3
(Dec 2 - Dec 5)

1 ▼

[Remove](#)

Choose a pickup option:

☐ Ship to Store Dec 2 - Dec 5: \$3

MIS Eyebrow Threading LLC • 0.5 mi >

Or choose a delivery option:

☐ Standard Shipping Dec 13 - Dec 29: Free

☐ Express Shipping Dec 5 - Dec 7: \$4.99

Redesign - Cart

Overall Findings and Recommendations

Task 1

Original	Redesign
Total Participant : 6	Total Participant : 6
Total Successful : 4	Total Successful : 6
% Successful : 66.66	% Successful : 100

Metric	Mean	Standard Deviation	t-value	p-value	Significance
Time to task	300.67	161.65	4.34868	0.001447	The result is statistically significant at 0.001447. On average, the users spent 52% lesser time on the redesigned site than the original one. A lot of time was saved in eliminating the login screen and providing filtering.
	140.33	121.03			
Lostness	0.8	0.01	3.38358	0.006961	The result is statistically significant at 0.006961. The level of lostness also significantly reduced in the redesigned site as the user is now able to get access to the products faster with filtering and sorting options. The users seemed to be lost on the original site when they had to open up each product to find the one with the exact requirements.
	0.69	0.03			
Error	1.17	2.83	1.75412	0.0978	The result is not statistically significant at 0.0978. But, the overall trend of making errors was drastically reduced in the redesigned website. The users are well guided on the redesigned site compared to the original and hence they make fewer errors.
	0.5	1.5			

Original Sample Findings	Redesigned sample Findings	Recommendations/Comments
4 Participants completed the task successfully while other 2 participants made errors with selections.	6 Participants completed the task successfully	Clearly the new redesigned site showed significant improvement in terms of time on task and lostness. The filtering options and sorting options that we improvised in redesigned helped the user to reach the desired product with ease and pace. Making design changes to the product naming and display too played key roles in the improvement of performance.
The mean time of the time on task is 300.67, it's mostly due to the time consuming by selecting the products as the site lacks many basic filtering options and also the website lacks the naming on the product display thumbnails which make it difficult to identify the product by name.	The Mean time is 140.33, the major reduction is due to the better filtering options and naming the product in the display thumbnail helps the user to better understand the product and reach the desired product with ease.	
Making the login mandatory to browse through the website is also one of the reasons for high time on task	Making login an option rather than making it mandatory helped people skip through the time consuming process.	

Task 2

Original	Redesign
Total Participant : 6	Total Participant : 6
Total Successful : 5	Total Successful : 6
% Successful : 83.33	% Successful : 100

Metric	Mean	Standard Deviation	t-value	p-value	Significance
Time to task	217.33	104.2	3.54251	0.005334	The result is not statistically significant at 0.005334. On average, the users spent 52% lesser time on the redesigned site than the original one. A lot of time was saved in eliminating the login screen and providing filtering options
	108.83	131.46			

Lostness	0.82	0.01	3.58721	0.004952	The result is statistically significant at 0.004952. The level of lostness also significantly reduced in the redesigned site as the user is now able to get access to the products faster with filtering and sorting options. The users seemed to be lost on the original site when they had to open up each product to find the one with the exact requirements.
	0.69	0.03			
Error	1.17	2.83	1.74608	0.111386	The result is not statistically significant at 0.111386. But, the overall trend of making errors was drastically reduced in the redesigned website. The users are well guided on the redesigned site compared to the original site and hence they make fewer errors.
	0.5	1.5			

Original Sample Findings	Redesigned sample Findings	Recommendations/Comments
5 Participants completed the task successfully while participants made errors with selections.	6 Participants completed the task successfully	Clearly the new redesigned site showed significant improvement in terms of time on task and lostness.
The mean time of the time on task is 217.33, it's mostly due to the time consuming by selecting the products as the site lacks many basic filtering options and also the website lacks the naming on the product display thumbnails which make it difficult to identify the product by name.	The Mean time is 108.83, the major reduction is due to the better filtering options and naming the product in the display thumbnail helps the user to better understand the product and reach the desired product with ease.	The filtering options and sorting options that we improvised in redesigned helped the user to reach the desired product with ease and pace. Making design changes to the product naming and display too played key roles in the improvement of performance.
Making the login mandatory to browse through the website is also one of the reasons for high time on task	Making login an option rather than making it mandatory helped people skip through the time consuming process.	

Original Page making login page mandatory makes the search and wishlist process time consuming and cumbersome

wish
30 Day Returns

Log In

Email Address

Password

[Forgot password?](#)

Log In

Sign Up

First Name

Last Name

Email Address

Password

Sign Up

or continue with

Facebook **Google** **Apple**

By clicking Log In, Sign Up, Facebook, Google or Apple you agree to the Wish Terms of Use and Privacy Policy. This site is protected by reCAPTCHA and the Google Privacy Policy and Terms of Service apply.

[Contact, Policies & More](#)

In Redesigned website login is an option rather than a mandatory, giving users a freedom of choice.

wish

Top Features

- Popular
- Price Drops
- Express
- Blitz Boy
- Pickup
- Recent
- Brands
- Popular

Unlock BLACK FRIDAY
Enjoy access to the season's best deals
[Shop now](#)

Wire fixer
Pool free to paste
Wire Fixer \$5

Bluetooth Audi Jack
Bluetooth Audi Jack \$7.5

Nike Blue Shoes
Yellow & blue
Nike Blue Shoes \$55

Nike High Boot Shoes
Nike High Boot Shoes \$75

Pencil Sparker
Pencil Sparker \$20

Headphones
Headphones \$22

Phone Stand
Type A
Phone Stand \$4

Five in one
Type-C 4050
Micro SD Card Slot
USB 2.0
5-in-1
Five in one \$10

Refer friends & Earn up to \$100 Wish Cash!

Give your friends \$5 to spend on Wish when they sign up with your link and make their first order.

Receive \$5 Wish Cash within 7 days after your referral's order ships. Earn up to \$100 every month!

[Learn More](#)

cwybzkm [Copy](#)

1080P Mini Camera

Rating	Price	Shipping	
<input type="radio"/> ★★★★★ & Up <input type="radio"/> ★★★★ & Up <input type="radio"/> ★★★ & Up <input type="radio"/> ★ & Up	<input type="radio"/> \$0 - \$5 <input type="radio"/> \$5 - \$10 <input type="radio"/> \$10 - \$20 <input type="radio"/> \$20 - \$50 <input type="radio"/> \$50 - \$100 <input type="radio"/> \$100+	<input type="radio"/> Express Shipping	<div>Close</div> <div>Clear All</div>

With this minimalistic filtering options it becomes difficult to filter out the desired results

Price	Size	Colour	Shipping	
<input type="radio"/> \$0-\$5 <input type="radio"/> \$5-\$10 <input type="radio"/> \$10-\$100 <input type="radio"/> \$100-\$500 <input type="radio"/> \$500+ <input type="text"/> - <input type="text"/>	<input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12	<input type="radio"/> White <input type="radio"/> Red <input type="radio"/> Yelloow <input type="radio"/> Blue <input type="radio"/> Black	<input type="radio"/> Express Shipping	<div>Apply</div> <div>Clear All</div>

With improvised filtering options user could reach to desired result with ease

Satisfaction Index from Users

