***Phillip’s Heuristic Evaluation***

**Customer Support and Contact Information (10/10)**

* Visibility of system status:
  + The most frequently asked questions are in here. Aside from answering basic questions, the page has multiple hyperlinks: one hyperlink is too see the status of orders/order history, one for information regarding returns, one for product availability, one for a pricing quote, and one for shipping questions. If the user is not satisfied, they could search in the FAQ.
* Match between system and the real world:
  + This does not use any difficult language or technical jargon. This is as standard as any other FAQ page one would find on an e-commerce website. The outline of the text is organized in a way to make it easier for the user to read; (i.e. bigger text and then underneath that, bullet points for questions).
* User control and freedom:
  + The user has full control to go to any other page just like the home page. The user could use the back buttons to do so. The user also has access to multiple hyperlinks for specific inquiries and the option to look at the FAQ if the user is not satisfied. Upon using the hyperlinks, the user could also back out of those if they wish.
* Consistency and standards:
  + Overall the language used in this consistent and easy to understand. There is no technical jargon and the multiple hyperlinks correspond to different things and that is clearly highlighted.
* Error prevention:
  + If the user got to this page by accident, the user has the option to use the browser back button to back out of the page and go to the page before. The hyperlinks to the other information pages are not close to each other, so it is highly unlikely that the user would click one hyperlink thinking it was the other and if that was the case, the user could also use the back browser button.
* Recognition rather than recall:
  + The information is laid out so that it is easy for the user to take in. The website specifies the page is the most frequent questions on the page and uses large and smaller text as well. The bullet points (smaller text) highlight the questions and the larger text denotes what area of question it is trying to answer.
* Flexibility and efficiency of use:
  + The page is good in that it does not try to answer too many questions at once and is flexible in that it has links leading to other pages that can answer more specific questions. More experienced users can also call in or e-mail if they have a very specific question or prefer interacting with a customer service representative. Methods of communication include e-mail, phone, direct mail and FAX.
* Help users recognize, diagnose, and recover from errors:
  + Whatever the user is seeing this page from, the native browser/client has a back button that can help the user recover if they click on a wrong page. This page is also outlined and clear to see the text to denote what type of information the user is currently seeing.
* Help and documentation:
  + This page is the very essence of help and documentation. Included are multiple mediums to get information: from sending in an e-mail to calling to self-diagnosing for help. This page also leads to other pages that also answer more specific questions as well.

**Product Discovery, Visibility, and Listings (8/10)**

* Visibility of system status:
  + The cart shows the value of all the items at the present moment. The page clearly states 1) the number of results and 2) specifically what the user typed in to amass the results. The product is aside important information such as price, product details such as manufacturer and others. It also shows whether or not the item is in stock. The page also shows a scroller for new releases and what is popular right now.
* Match between system and the real world:
  + The page has a lot of the similar phrasing as any other e-commerce website. A virtual shopping cart, “new releases” and “popular right now” are all terms that first-hand shoppers would even recognize. “Back in stock” and “best sellers” are also phrases that consumers are aware of. Overall, none of the page has any difficult jargon that consumers would struggle with.
* User control and freedom:
  + The user has the option to scroll up and down the listings on the page. If for some reason the user is looking at a particular product on new releases and loses track because the user clicked on the left/right arrow, the user has the option to click the opposite arrow and get back to the product the user was looking at. If the user accidentally clicks on a product and wishes to go back, the user can use the browser back button.
* Consistency and standards:
  + This is indeed consistent. There are no words that mean something else in a different area of the page. The BLT item numbers would have different numbers as well. The formatting is easy to understand is consistent but none of the words would throw the user off at all.
* Error prevention:
  + Users will have no trouble accidentally adding anything and if they do, they can take it out later. When looking at the slider for some of the products, if a user accidentally clicks right or left, they could do the opposite and get back to the panel they were looking at before. The back button is important if the user clicks on something they did not want to do. Users cannot also add out of stock items and that is clearly displayed.
* Recognition rather than recall: \*\*\*\*\*
  + The items presented are mainly pictures and some text, users do not have to remember anything or have any sort of memory load on them. Everything on the page is clearly outlined. *Perhaps we should add a page number as well so that the user could know.* Aside from the page number, everything else is mostly present.
* Flexibility and efficiency of use:
  + There is good flexibility and users also have the option to further sort their items out if they want to see certain brands and the manufacturer. If the user wishes to see other products that they did not specifically seek out, the could check in multiple areas such as “back in stock”, “best sellers”, “new releases”, and “popular right now”.
* Help users recognize, diagnose, and recover from errors: \*\*\*\*\*
  + Users have the back bottom and nothing they do here is permanent. It is best to have a page number just in case users divert from the page they were looking at. Aside from that, the page clearly shows if an item is out of stock and will not allow users to add such items.
* Help and documentation:
  + There is a help button right there at the top in the middle but mostly everything is self-explanatory. If the user is having trouble navigating such page even though the page is clearly laid out. The user could click the help button and talk to a representative who would help the user expedite the process and help them find whatever it is they were looking for.

**Product Filtering (9/10)**

* Visibility of system status:
  + Yes, the radio buttons show what is selected. The checkboxes show what is checked or not checked. The prices, “min” and “max” would have numbers if the user had typed them in. Also to add to all of this, the page would update as soon as the user made any changes to this.
* Match between system and the real world:
  + Aside from using very simple abbreviations that most people understand (i.e. “min” for “minimum” & “max” for “maximum”), the language is very easy to understand. This section would require the user to understand exactly what a “peripheral” or “mousepad” is, aside from that, this language is as easy as it can get.
* User control and freedom:
  + Users can select and unselect options. The user has the ability to put in a minimum and maximum price, the option to sort it by reviews, the option to see categories, sort it by ascending or descending price, the option to select by manufacturer, and the option to see relevant categories based on what the user has been looking at.
* Consistency and standards: \*\*\*\*\*
  + Apart from everything on the page being unique (i.e. the ability to sort by prices, customer reviews, categories, relevant categories, and manufacturers). The outline is consistent except the radio button to select ascending from descending and using checkboxes. Selection by price should be a radio button rather than a checkbox because it wouldn’t make sense to have a listing that is both ascending and descending at the same time.
* Error prevention:
  + The page would load as soon as an option is selected so the user gets instant feedback and if the user does not like it, the user can select something else or revert back to what the previous options were. The errors that would come up with this page could be easily fixed by doing the opposite. The sections of how the user could sort it by are distanced far enough so that the user would most likely not make an error that way.
* Recognition rather than recall:
  + Everything here is laid out for the user and does not have to spend time remembering anything. The user can see what is selected and what is not selected. Quite practically, the user does not have to remember much on this page.
* Flexibility and efficiency of use:
  + The user does not have to further break down the search, the user can just see all of the items without any preferences. The checkboxes at a first instance are all unchecked and the user may have the option to select some of the checkboxes. The radio buttons are always going to have a default option. The users have the option to play around with all these settings until they have the options that they want.
* Help users recognize, diagnose, and recover from errors:
  + There is very little to worry about when it comes to errors. If the user selects something that they did not want in the first place, they may be able to simply just unselect it. The settings clearly display what is currently selected and the user is notified since the page changes based on the selection.
* Help and documentation:
  + The filters for the page searches are self-explanatory. None of the filters would be confusing for most consumers. Since the product filters would be on the search pages, the user has access to the help button at the top middle of the page.

**Product Check Out: (7/10)**

* Visibility of system status: \*\*\*\*\*\*\*
  + The user is shown the item (including the name, the manufacturer, the BLT item number, the quantity, the image, the price, and the subtotal). All these details help the user know what is in their cart at the moment. The billing and shipping info is also detailed and laid out so that the user can type in the respective details. As the user progresses into the checkout, the user is shown which stage of the checkout process he is in EXCEPT for the cart page. While all of these are present throughout, the right side of the page, the user is shown all the product information. Lastly, the page with the ability to place order houses all the details, from billing info, payment info, shipping info so the user can see all of it in a glance before commiting to the order.
* Match between system and the real world:
  + This matches the real world in the sense that everything displayed is like any other checkout process. Most users would understand the virtual shopping cart, the billing info, the payment info, shipping and order review. It displays subtotal, shipping and total which are all things users are familiar with when shopping.
* User control and freedom:
  + This is done well. At any point of the checkout process, the user can opt out of the checkout process by going to any other page by clicking on the tab or the hamburger menu. The user can also click on on any step of the checkout process to return to that step.
* Consistency and standards: \*\*\*\*
  + Most of the checkout process is as standard as one would find on any other e-commerce website. The one thing that could be better is that the billing info and the payment info can be consolidated into one.
* Error prevention:
  + During the checkout process, the user has to go through several pages to place the order. The user has multiple chances to back out and correct their information before finally placing their order. The order review page is the final page which encompasses all the information the user has put in and the user can glance before placing an order.
* Recognition rather than recall:
  + The order review page (the final page) serves for the user in that the user can glance at all the information the user put before and can finally decide if all of that is correct before finalizing the order.
* Flexibility and efficiency of use:
  + The “back” button that is built-in in the checkout process can be used to access previous sections of the checkout process that the user’s info that they can edit. The easier and more intuitive option that users can also do is to select the specific process of the checkout process and edit.
* Help users recognize, diagnose, and recover from errors: \*\*\*\*
  + Users at the end of the checkout process are presented with the order review. The information that the user has inputted up to that point the user can see, and if need be, they can edit by selecting the pages. One thing that should be added is the check for non-existing addresses and wrong credit card information.
* Help and documentation:
  + The text boxes that the user utilizes to fill in information are all labeled. It is all intuitive.

**Search Bar (9/10)**

* Visibility of system status:
  + The search bar would also try to guess the most common items based off of what is typed into the search bar. This popups instantly and if the user types in something that is not common or has no relevance, that would show up as non-existent as well.
* Match between system and the real world:
  + The search bar algorithm is based off of what the user inputs. If the user knows what to put into the search bar, the system would respond accordingly by showing the suggestions.
* User control and freedom:
  + The user can type and delete as the user wishes. If the user submits a search that does not turn out the desired result. The user has the option to type in another one. If the user would like to go back to previous searches, he can use the back button (given browser history is available).
* Consistency and standards:
  + This search bar works like any other search bar, meaning that users can type in anything and the search bar algorithm will correspond accordingly.
* Error prevention:
  + If the user misspells a word, then the user will be presented with a suggestion that has the correct query (given that the misspelling is not too far off from the desired query). If the user types a query that is not necessarily misspelled but does not correspond to BLT’s queries. Then it will also be corrected, for instance, “computer monitor” would trigger “pc monitor”.
* Recognition rather than recall: \*\*\*\*
  + The search bar will keep all the text that the user has currently inputted. One thing that could be added is that previous queries that the user put, the system could save.
* Flexibility and efficiency of use:
  + The user could type in the entire query or have the option to select the suggestions that pop up. The user could also just type in the full query and click search.
* Help users recognize, diagnose, and recover from errors:
  + Upon clicking search, the user can see how many results come up with the query. It will display how many results or none at all.
* Help and documentation:
  + The help button is at the top of the page but the search bar is intuitive because it is like most other search bars.

***Matt’s Heuristic Evaluation***

**Customer Support and Contact Information (8/10)**

* Visibility of system status:
  + The site provides static pages with text-based content providing instructions for finding information regarding the service and product orders. When a resource is found and used to navigate to information, it is clear to the user that new content is presented. There is a visible transition that re-orients the user’s position within the sitemap of customer support information.
* Match between system and the real world:
  + The labels for information were not changed from their initial state. The terminology used within the current system is accessible to users from a non-technical background, as the purpose of the customer information page is to provide clear and direct access to relevant content to the customer (order based information).
* User control and freedom:
  + The redesign restructures the navigation tools provided to the user in the form of hyperlinks. Clear signals are provided in a consistent format to indicate action can be taken that will direct the user to another page. All of the links are clearly labelled and the context surrounding each link gives the users clues as to where the link will take them.
* Consistency and standards:
  + For the page that we redesigned, and consequently all related pages, we used the same hyperlink framing for text as most other systems. All links are labelled with terms such as “here” (as in “click here”) and are outlined in blue text with an underline. This follows the same textual formatting to indicate to the user that a link is available to use to navigate to more information.
* Error prevention:
  + We did not decide on implementation for error prevention. The initial design of the site does not establish a dialogue with the user nor does the redesign. Error prevention could be implemented in the form of a “sanity-check” when a user clicks on a link (in the form of a confirmation box). This would give the user a chance to stop and confirm whether the user would like to navigate away from the current page or stay where they are.
* Recognition rather than recall:
  + There are several kinds of information in the customer service section of the site, the redesign organizes the information present into relevant categories pertaining to orders that have already been made, and orders that have yet to be made (or information for before you order).
* Flexibility and efficiency of use:
  + Hyperlinks are provided to help streamline the navigation process, clearly indicating the intended destination for each link. The context of each link gives the user some clue as to what to expect should a user follow through. Shortcuts and macros are not available, nor does the site provide tools to expert users to allow for greater scale and efficiency of use.
* Help users recognize, diagnose, and recover from errors:
  + The design is already responsive in terms of displaying information to communicate the current state of the system. Although there is no error prevention, there is not many opportunities for the user to encounter an error, other navigating away from their current page by mistake. In such a case, the user’s browser possesses tools that allow recovery from such mistakes.
* Help and documentation:
  + The site provides comprehensive documentation regarding resources for information pertaining to the company’s service. Although the system is not complex, there is very little in the way of documentation or help for technical issues or tips for the tools provided.

**Product Discovery, Visibility, and Listings (7/10)**

* Visibility of system status:
  + When a search is made, a clear transition via page refresh is made and product listings are displayed in the form of a linear set of products that run down the page. The images provided for all products can be interacted with. When an image is clicked on, it is expanded, and the user can observe the shift in size relative to the rest of the page. Tools used in product discovery such as side scrolling discovery feeds update the list of products displayed each time a user cycles through the list.
* Match between system and the real world:
  + The product listings use familiar wording to refer to objects relevant to the user’s experience. Actions like “add to cart” and “view cart” are familiar to users who have used other systems developed by shopBLT’s competitors. The product discovery feed runs from left to right which follows the same reading pattern for those who live in the United States (where most of shopBLT’s user traffic originates).
* User control and freedom:
  + The user is free to sort and organize product listings, expand and minimize images, and scan through and view information on products in the product discovery feed. Elements contained in these sections of the design target do not provide much in the way of interactivity.
* Consistency and standards:
  + Standard terms are used to describe different types of objects the system uses to convey information to the user/customer. Words like “shopping cart” and “price” are consistent with the user’s mental model of a marketplace, indicating the purpose of certain tools and icons. A shopping cart is used to represent the customer’s purchasing inventory, and product information reads left to right beginning with the image, followed by the description, and ended with the price which is consistent with most system models in the competitive domain.
* Error prevention:
  + Confirmation messages were not implemented in the redesign nor were they present in the initial design. There is no error prevention for the current state of this design target.
* Recognition rather than recall:
  + Users recognize products and product related information. Additionally, information pertaining to the tools used to manipulate product listings and visibility are provided in a standard interactive manner (clicking to enlarge and sorting results).
* Flexibility and efficiency of use:
  + Additional tools and functionality were not implemented to allow the customer streamlined use. We could have implemented a “popular for you section” that would cater to the user’s activity. A “single click checkout” option for faster check out processing.
* Help users recognize, diagnose, and recover from errors:
  + Signals are not provided for recognizing when errors occur. The opportunity to perform an action that results in an error is minimal. Most of the information pertaining to this design target was purely aesthetic, and does not pertain to an real functionality.
* Help and documentation:
  + There is no documentation for the redesign in terms of product discovery or product visibility. What we could have done was provided alternative text for images provided after a search, in the product listings.

**Product Filtering (8/10)**

* Visibility of system status:
  + Similar to most other pages on shopBLT’s website, product listings, before filtering functions have been initiated, are static. Once the user has applied the desired filters, the page refreshes and new, more narrow listings are presented. The system makes visible the system state before and after and a clear distinction is made during the transition from one set of listings to another.
* Match between system and the real world:
  + The system uses standard terms and labels that most users of e-commerce websites, or web-based ordering services would be familiar with.
* User control and freedom:
  + The user is free to use individual filtering functions as well as a combination of functions to display a desired set of product listings. What we failed to include was a “clear all” function that returns the (initial) standard set of product listings that appear as a result of a search query. The design restricts the user to following through with the filtered products, and forces the user to perform a new query, or navigate back to a previous page to clear filters.
* Consistency and standards:
  + The filtering functions have clear affordances, signaling what a particular filter will do. These functions are labelled with standard names. Users of competitor websites will be able to predict the behavior of the system if price-based filtering were to occur (or manufacturer based, customer review based, etc.). Furthermore, other signals are provided. The icons used to demonstrate the range of customer reviews for a particular product are consistent with competitors (the use of stars is used in other industries aside from e-commerce, such as hotel or boarding services).
* Error prevention:
  + The redesign of the filtering mechanisms does not provide preventative measures to reduce errors. Should the user use an invalid input for the price-based filtering function the system will redirect the user to an empty page with no search results.
* Recognition rather than recall:
  + Keywords regarding the purpose of each button (or filter) are easily recognized given the consistency with standard presentation. Signals like text-entry boxes are used to provide hints as to what action needs to be performed in order to complete the requirements for specific filters such as filtering by price. Users may recognize the consistency with a competitor’s interface (such as Amazon), as our redesign is heavily influenced on other kinds of systems.
* Flexibility and efficiency of use:
  + Multiple filters can be applied to further reduce and narrow the search results per the user’s specifications. Filter functions follow the free-flowing page as the user scrolls through product listings to improve efficiency of use.
* Help users recognize, diagnose, and recover from errors:
  + The redesign does not account for invalid input for the price-based filtering function. What we could have done is provide feedback to the user before the filter is applied so they recognize that letters are not accepted as valid input. This would help the user recover from receiving an empty page with no search results. Alternatively, a page that is presented as a result of invalid input could be displayed communicating that the input was invalid, explaining the empty search results.
* Help and documentation:
  + The assumption our team worked under while redesigning the filtering functions was such that the consistency of standard organization and structure of the filtering functions would be familiar to most users who shop online. This falls in-line with the user research we conducted and thusly our redesign catered to this population. Documentation was not found to be necessary for these tools as we assumed they would be straight forward.

**Product Check Out: (9/10)**

* Visibility of system status:
  + The checkout process consists of three pages. Each page consists of fields that must be completed in order to progress through the checkout process. If inadequate information is provided the system will not transition into the next state, rather it will indicate that the user has not progressed and there are steps that need to be taken in order for the user to move on.
* Match between system and the real world:
  + Each page during the checkout process outlines a simplistic process for information to be provided by the user in order for the system to successfully process an order. Terms like, “billing” and “shipping” are user-oriented and are accessible to those who are familiar to the e-commerce layout.
* User control and freedom:
  + While the system navigates the user to the next step in the sequence of pages throughout the checkout process, the user is free to navigate back to any previous page to change, order information, billing information, shipping, information, and payment information. Having these pages available for the user to navigate to gives the user control over the type of information they want to provide to the system.
* Consistency and standards:
  + The pages that make up the checkout process use standard text entry fields that receive relevant customer information and consolidate them to successfully process the user’s request for a purchase order. These text fields are used by many other competitors in the e-commerce marketplace (such as: Amazon, eBay, and NewEgg).
* Error prevention:
  + Signals are used during the checkout process to indicate whether a user has entered adequate or complete valid information. If the requirements are not met, the entry boxes are highlighted in red and the user is prompted with a note explaining what is considered valid input.
* Recognition rather than recall:
  + The similar and consistent layout of the text entry fields on each page resemble that of similar others in the e-commerce domain. Users will recognize these pages as having a specific purpose (to acquire customer information to place an order). Instructions for this process are not needed but are provided. User’s can clearly identify what the appropriate actions are to complete the checkout process.
* Flexibility and efficiency of use:
  + A check box is provided to streamline this checkout process. The checkbox’s purpose is to use the same billing address information for the shipping, eliminating the need for the user to enter that information in twice. Additionally, what we could have done was adopted Amazon’s “one click checkout” which uses information saved from previous purchases to improve the efficiency of this system.
* Help users recognize, diagnose, and recover from errors:
  + Signals are used during the checkout process to indicate whether a user has entered adequate or complete valid information. If the requirements are not met, the entry boxes are highlighted in red and the user is prompted with a note explaining what is considered valid input.
* Help and documentation:
  + Information pertaining to question about the checkout process, or post-checkout process is located in the customer service section of the website, and the F.A.Q. section as well. Using both pages will provide a comprehensive set of information to answer any relevant customer inquiries. Additionally, the customers can always contact the business directly.

**Search Bar (10/10)**

* Visibility of system status:
  + The redesign improves the visibility of system status while the search bar is in use. While the initial system design and our team’s redesign both incorporate an indication of transitioning from a complete query to a set of product listings, the redesign also informs the user of live text processing to show the system’s interpretation of the query.
* Match between system and the real world:
  + The magnifying glass give the user an idea of the purpose of the search bar, as magnifying glasses are used to look through finer grained details, the search bar narrows down the site’s inventory to display a small subset of the products for a user to focus on.
* User control and freedom:
  + Although typeahead and reinterpretation of misspelled queries provides the user with additional error prevention the user is free to ignore these tools and enter a query that they have come up with. Perhaps the system has not been programmed to interpret a particular kind of query, yet the user would still like to perform it, they have that opportunity.
* Consistency and standards:
  + The search bar’s positioning and icon are consistent with the standards of other e-commerce services (see Amazon, eBay, NewEgg, etc.).
* Error prevention:
  + Misspelled and broad ambiguous queries are now parsed correctly by the system. This feature in the redesign prevents false negatives (stating that a product is not available when it actually is) from occurring. The system can now interpret a broader range of queries which improves the user experience because it is now more inclusive of individuals shopping for electronics who do not enough domain knowledge to form a coherent/specific query.
* Recognition rather than recall:
  + The search bar’s positioning at the top of the page is familiar to users from an online shopping background. The magnifying glass icon in the search bar indicates the text field is special and accepts search queries to fetch product listings.
* Flexibility and efficiency of use:
  + When a user performs a search query, the system shows the user a drop-down menu with typeahead predictions of the complete query based on its interpretation of the user’s partial query.
* Help users recognize, diagnose, and recover from errors:
  + The redesign of the search bar includes improved text processing and query interpretation that accounts for misspelled and ambiguous queries. An approach to misspelled queries that we took was using the “did you mean X?” prompt subsequent to a misspelled query. This accounts for user error and helps the user recover by providing an accurate interpretation of the query, reducing the need for users to perform spell checks, backtracking, and searching for domain terminology for product descriptions.
* Help and documentation:
  + While tools for improving the usability of the search a have now been implemented in the redesign, no documentation was provided for the redesign, nor is there documentation to help the user through the searching process.

***Juwan’s Heuristic Evaluation***

**Customer Support and Contact Information (9/10)**

* Visibility of system status:
  + With this new redesign users should be able to quickly and easily find out the information they need from customer support and will have quick access to contact information in case they have to ask a more specific question about their order.
* Match between system and the real world:
  + The redesign does a good job of this since the main part of information in this page is the FAQ which shows the most asked questions immediately. This is good since it can solve a majority of the users problems. At the same time if it does not appear there are links to the comprehensive FAQ page and the contact information just in case their question does not exist already.
* User control and freedom:
  + The user should never get trapped at a single page since this section is just an information giving section. If a link is accidently pressed or they are redirected by any other means they will easily be able to use the back button on the browser to go back to where they were.
* Consistency and standards:
  + The redesigned page stays consistent with all other parts of the website. The main layout of everything is the same and easy to navigate so if the user is able to navigate through one part of the site then this section should be no trouble to them at all.
* Error prevention:
  + There should be no room for error here since this part of the site is just for information display of the contact information and customer support
* Recognition rather than recall:
  + Any information that may be relevant to the user is easily available and there should be no page scrolling necessary when looking for information. If a reader is going through the FAQ or contact information then it will be easy for them to find the information and will not have to recall anything.
* Flexibility and efficiency of use:
  + Novice users will be able to find out the most important questions that get asked while the more advanced users will be able to go to the more comprehensive FAQ or just directly contact the sellers through a phone call or email. This means that whether the user is new or old they will be able to use what they need without issue
* Help users recognize, diagnose, and recover from errors:
  + This part of the website is just for information display for the users so it should not be possible for them to make any mistakes regarding the website.
* Help and documentation:
  + The page is intuitive to use and most users should not need much help or documentation to navigate through it. Although if they do want to go through a specific page then it is clear and obvious where they need to go.

**Product Discovery, Visibility, and Listings (8/10)**

* Visibility of system status:
  + Based off the new redesign whenever the user tries to navigate to a new page then the browser will have a short loading screen and the objects on the screen will change. On top of this the user should have an indication about what page their on and what you can do on the page based off the title at the top.
* Match between system and the real world:
  + The system for the most part uses familiar layouts based off of the other popular ecommerce sites. This is done in the forms of side scrolling menus, categories, and search bars. Product visibility and identification was also made easier but there are a couple new features that may not be as popular to most users. The first one is hovering over the product description for a more detailed layout of what the item is about. The second is having a check mark or a cancel out sign to signify whether the product is in stock or not. Aside from this the new format is easy to ready and should be intuitive for users to use.
* User control and freedom:
  + Even if the user goes through a state in the product browsing page they will easily be able to exit out of it simply by moving their mouse away from the dialogue. However, when it comes to adding to the shopping cart they will have to go to their actual shopping cart and remove the item themselves which will take at least a few pages of dialogue not taking into account going back to the original page they were browsing through. In the landing page this should not be a problem though since the home page is meant for just browsing and there is no way for them to accidently place something into their carts.
* Consistency and standards:
  + Everything that is listed will be in a consistent and similar format to all of the other ones. This way the user can easily recognize what the items for sale are and what is just an advertisement or link to a completely different page. Aside from this navigation should be relatively easy.
* Error prevention:
  + When it comes to browsing items there should be no problem discovering items however there is a problem that arises when it comes to adding a product into your cart. There is no dialogue to confirm with a user if they want to add it into their cart so they may run into the issue of clicking into the add a cart button but not being certain they wanted the item so they may have to remove it when it comes to the checkout process.
* Recognition rather than recall:
  + Users will have to remember where they found each item and do not really have a wish list where they can keep track of items they are interested in but do not want to buy yet. However with the added addition of pictures there will be more recognition than recall since they just have to recognize what the item looks like and look at the brand without having to remember exactly what the brand and item looked like.
* Flexibility and efficiency of use:
  + The system should be relatively simple for both older and newer users however newer users may have trouble navigating through the product browsing section at first. Once a user becomes more in tune with a website then there should be easy and quick navigation so they can easily find what they are looking for without having to put much thought into the design of the site.
* Help users recognize, diagnose, and recover from errors:
  + When it comes to product discovery there should not be too many issues that should arise since it is just an information giving page. However, when it comes to product listings the main problem that can be seen is accidentally adding something into a cart. The user will be notified when an item is added in though so at the very least they will be able to remove the item as soon as they see it drop into their shopping cart.
* Help and documentation:
  + There is not much help provided on this section since the design follows a sort of universal standard that most ecommerce sites use. However, the only big issue may be the product in stock or out of stock symbols. Aside from this users should not have much trouble figuring out what to do on the site and how to find their desired items.

**Product Filtering (9/10)**

* Visibility of system status:
  + The product filtering or in other words advanced search function should be relatively easy to see what is going on. Everything involves either a checkbox, radio button, or fill in option so the users can easily see what is being used or not. On top of this once the product filtering section is filled out they can apply the changes and see it happen right in front of their eyes. The page they are browsing should now meet their criteria and many items that were originally there will most likely be taken out so they will only see the ones they are interested in.
* Match between system and the real world:
  + The product filtering bar gives the users options to filter for what seems to be the most important parts to the users based off of the research that was done. In this case two of the biggest things emphasized was price and customer reviews which is made sure to be included in the product filtering section.
* User control and freedom:
  + Since this section is made up of boxes that can be checked or filled out it will be relatively easy for a user to change the options. This means that users have full control and freedom to change what types of items appear in their listing and should not have any frustrations changing the settings.
* Consistency and standards:
  + The design of this is a bit different than many other traditional sites however it is relatively short and the items that it does include are easy to understand and will not leave a user guessing. Once the user reads the options that are available they should easily be able to figure out which ones they want and fill out the information that they desire.
* Error prevention:
  + There is not a lot of room for error here but when the user does make an error they will be able to revert it relatively easily. Aside from this there should be no way to break this function as everything is a checkbox or radio box and makes it easy for users to use.
* Recognition rather than recall:
  + Users should recognize many of the terms that are included so it should not take them much time to remember what all of them means. Many of the terms and options are used on many other sites so there is mostly recognition rather than recall.
* Flexibility and efficiency of use:
  + Both novice and expert users of this function should have a relatively easy and quick time using this. The exact numbers that are used may differ and the ranges may be different than what new users are used to but aside from this this function is relatively simple and should improve the users shopping experience since they can find exactly what they want.
* Help users recognize, diagnose, and recover from errors:
  + This function is option based so it is really up to the user to filter for what they want. However, if they inputted a wrong price range that they wanted then they would have to realize through the listings that the price they inputted was wrong which means they would have to go back to the function to fix it. Once they do figure out what was wrong then they should have an easy time recovering from this issue and fixing the info to what they desire.
* Help and documentation:
  + There is not much help or documentation included for this function but many users should recognize this filtering system based off of other sites that they have used. If they do not the wording of the function is simple and should be intuitive for most users so even if they have not used an advanced search function before they should still be able to easily figure it out and use it to improve their experience.

**Product Check Out: (10/10)**

* Visibility of system status:
  + The checkout process provides clear visibility of what step they are on. Once they complete each step then a new page with a new layout and different information is provided to them. Additionally they will have access to a summary of their order on a majority of their pages to ensure they know what they are buying. This shows the user that nothing additional is being added on to their price tag while at the same time they will have a sense of progression throughout their process.
* Match between system and the real world:
  + Many other ecommerce sites use this checkout system where every step is on a new page so that they are not overloaded with information. On top of this there is an option to put billing the same as shipping to further expedite the process making it easier for the users so that they do not have to fill out the same information twice. On top of this they are given a summary at the end of their purchase so they know that they made the exact right order just like most other ecommerce sites.
* User control and freedom:
  + Users will be able to go freely forward and back through pages as long as it is to their most current step. This way they can not progress to a page that may break the checkout process but if they figured out that they accidently filled something out wrong then they can go back and fix the information. The users are also not forced into doing anything unnecessary so the entire control of the process is in their hands whether they want to add more stuff, remove some items, or just change some of the filled out information.
* Consistency and standards:
  + This checkout process again follows how most other websites do their checkout processes so that it is easy for most users to understand what to do throughout each step. Even if they are not familiar with the standard checkout process the steps are relatively simple and each text box that needs to be filled out is appropriately labeled. This gives the user the easiest and smoothest process that can be provided.
* Error prevention:
  + In order to prevent users from breaking the checkout process they are not allowed to progress to any further steps until they have filled out the previous step first. This is the first line of defense when preventing errors. The next way to prevent them from creating errors is to making sure all of the text boxes are filled with the correct information. This means that if an email address or credit card number was wrong the page would be reloaded and keep only the non sensitive information but the user would need to fill out the sensitive information again and any other checkboxes that were incorrectly filled out.
* Recognition rather than recall:
  + Most of the information is listed out for the user so that they never have to remember everything. When they fill out their basic information then each one is labeled so that they do not need to remember what needs to go where and just have to fill out information that they most likely know by heart already. On top of this the summary section of their items will allow them to see what they are buying at all times which will make sure they do not buy something they do not want or if they forgot something they will be able to see it from there too.
* Flexibility and efficiency of use:
  + Both novice and expert users of this system should not have too much trouble navigating through this part of the website. Everything is relatively straight forward and options such as billing being the same as shipping help to expedite the process so that the user does not have to fill out any redundant information.
* Help users recognize, diagnose, and recover from errors:
  + The system will try its best to prevent any errors from happening in the first place but in the case of an error then the user will just have to fill out information again. The sensitive boxes that are refreshed will clearly be blank to the user and using the standard of red text the user will be told which parts of the forms that were filled out were incorrect. This way the user knows obviously what is wrong and can easily identify what they need to fill out again.
* Help and documentation:
  + The help that is provided in this function is the labels that come with the checkboxes. This way the order doesn't really matter as long as the user can identify which labels go to which checkboxes. Also the order summary and final confirmation page lets the user know exactly what they have filled out and can double check if anything was correct or incorrect before they actually proceed and pay for their items. This gives the user confidence in what they are doing and allows them to accurately purchase and confirm what they want.

**Search Bar** **(10/10)**

* Visibility of system status:
  + There is a clear indication for the user if the search bar is being used since with the new redesign it will feature an autofill function to try and figure out what the user is trying to search for. On top of this once a search is performed a new listing page will be shown along with some suggestions that may come up just in case the key words were off.
* Match between system and the real world:
  + Many modern day search engines provide exactly what the new search engine provides. In search engines such as google it is common for the users entry to be auto filled or autocorrected which is what this new search engine is trying to achieve. This gives the users the most ease of use so that they do not have to worry exactly how to spell a word or group of items.
* User control and freedom:
  + Although the search bar includes an autofill and autocorrect function the user is still in full control of the search engine. This means that if the user wanted to spell a word a certain way they will not be forced into fixing it and will still be able to type their intended word. Even if the word is spelled wrong or incorrect results should still show up so regardless of how a user wants to spell something the results should be accurate and the user should still feel in control.
* Consistency and standards:
  + The way the search engine works is in line with many other popular search engines such as google. Most users of an ecommerce site has mostly likely used big search engines such as google so it will be easy for them to transfer this knowledge to this website.
* Error prevention:
  + With the autofill and autocorrect feature the users should still be able to find accurate results even without knowing how to exactly spell or word or even knowing exactly what something is called. This way users can rely on having a vague memory instead of having to remember exactly what they are looking for.
* Recognition rather than recall:
  + The users should easily be able to recognize the different categories or types of items they are trying to find with the autofill feature. This takes the burden off of the user since often times it can be difficult to remember the complicated names of electronics. With these new added features users just need a general idea of what an item is called and will be easily able to find what they need with minimal effort.
* Flexibility and efficiency of use:
  + Both novice and expert users of the website should have an easy time using the new search bar. There are not really any nuances that exist in this feature so as long as they have experience with at least one other search bar the redesigned sites search bar will be easy to use.
* Help users recognize, diagnose, and recover from errors:
  + If a user makes an error in the search bar it will be easy to fix since they can see it through the autofill feature or if they have already searched for an undesired item then they can just use the search bar again on the top of the screen to fix their issues. Aside from this there should not be any permanent errors that can be made which is a positive thing in both the user and designers perspective.
* Help and documentation:
  + There is not much help provided on how to use the search bar. There is a magnifying glass icon to signify that it is a search bar but aside from this it is assumed that all the users of the site have an idea of how to use a search bar. It is not expected for anyone to need much help or documentation on how to use a search bar that is able to autofill, autocorrect, and use advanced search functions to find related items that they need.

***JT’s Heuristic Evaluation***

**Customer Support and Contact Information (8/10)**

* Visibility of system status:
  + The redesign is significantly easier to view in terms of visibility. The information is well laid out with use of color, sizing, and boxes to denote different hierarchies of information. It is much easier to see the important necessary information.
* Match between system and the real world:
  + The system is very reminiscent of FAQs and other contact information pages found on other websites. The layout is simple and orthodox.
* User control and freedom:
  + The page gives users the freedom to access different points of information by hyperlinking access points for the user. It also displays alternative ways of contacting BLT if needed.
* Consistency and standards:
  + The design is straightforward and no-nonsense. Compared to what it was before, the amount of typed copy has been significantly lowered, as well as condensed into one single page.
* Error prevention:
  + The usage of large text, colors, and segments allows for a user to understand the information more easily. A user would be less likely to make a mistake with all these larger and organized components in play.
* Recognition rather than recall:
  + This is definitely recognition over recall since all the information is displayed in one block. Rather than having to remember where everything is, users will be able to recognize the difference between the left FAQ section and the right contact section.
* Flexibility and efficiency of use:
  + It is very efficient as all the information is displayed here. If you need to find more info, you click the selected hyperlink; nothing is necessarily hidden, yet it is more organized than before.
* Help users recognize, diagnose, and recover from errors:
  + The page is easy to find so if a user accidentally clicks the wrong link, they can always backtrack or click the help button to get back.
* Help and documentation:
  + The page is all documentation and help - this is redundant.

**Product Discovery, Visibility, and Listings (10/10)**

* Visibility of system status:
  + Visibility is much improved. After a search, the page would update showing a change in progress of search. The visibility also improves in terms of image visibility (when dealing with products).
* Match between system and the real world:
  + The system is familiar and reminiscent of other ecommerce websites.
* User control and freedom:
  + The user is given many different ways to interact with the results. They can Add to Cart, view more info via the hover option, or click and go into the product result.
* Consistency and standards:
  + The new search postings have a clean layout, consisting of a picture, text, BLT #, and manufacturer. They are laid out symmetrically and are easy to read and interact with. They also match what the site has already been used to.
* Error prevention:
  + The new posting list has more readable text, spaced out products, and clear signifiers of price and actions to take on each listing. These elements help prevent errors.
* Recognition rather than recall:
  + Each product listing is now more recognizable than before. In the last design, you would need to remember the exact name of the product in order to find it. Now, an image and clear “Manufacturer” tags help with this recognition process.
* Flexibility and efficiency of use:
  + The scrollable listing now is able to show less results with more detail. This allows for paginated listings so users can be more efficient with their choice of product.
* Help users recognize, diagnose, and recover from errors:
  + The page includes “out of stock” listings so users can see what BLT is selling, but not selling right now. The listings also will indicate when a user has added something to their cart by signaling with color and the “Added” mark after a click.
* Help and documentation:
  + Help and documentation comes from the hover feature, which at this point, helps display a recent review from a user to help gain an understanding of who just bought the item.

**Product Filtering (8/10)**

* Visibility of system status:
  + Visibility is improved here, as the filter is now on the side and VISIBLE.
* Match between system and the real world:
  + The filter is very reminiscent of what you would find on Amazon and Newegg. The levels of change make sense and users would be able to use it more easily than before.
* User control and freedom:
  + These filters are all about control and freedom. The users can now adjust their product listings and have the listings update instantly.
* Consistency and standards:
  + The filters are easy to find, legible, and ordered in a hierarchical fashion. They are consistent in design as well.
* Error prevention:
  + The filters are semi filled out already, showing the user an example of interaction before actual user interaction. This is an example of error prevention.
* Recognition rather than recall:
  + The filters update after each selection to show progress. This is recognition rather than recall, as the user can look back and see which filters they have just toggled.
* Flexibility and efficiency of use:
  + The user is given several options for filtering. Not very many other options are necessarily needed
* Help users recognize, diagnose, and recover from errors:
  + Each filter is uncheckable and refreshing the page would result in the filters being reset to normal. A reset button could have been implemented, however.
* Help and documentation:
  + No help or documentation of this feature is found.

**Product Check Out: (9/10)**

* Visibility of system status:
  + Each step of the process is neatly displayed at the top or top left of the page. The search bar is removed in order to show a change in system status.
* Match between system and the real world:
  + Our cart system is actually cleaner than other ecommerce websites. Our process is similar, but without a poor use of space.
* User control and freedom:
  + Users are able to use a series of text boxes and sliders to fill out their own information as well as a choice of shipping and a memo box for additional information.
* Consistency and standards:
  + Pagination and clear buttons for progress advancement are found throughout. The pages are ordered logically and are easy to find and large.
* Error prevention:
  + There is a consistent summary of the order that updates in real time that would allow users to know what they are buying and exactly how much they are buying. There is also a final review page in order to make the user know what they just did, without error.
* Recognition rather than recall:
  + The order page will keep info filled if a user needs to look back at each piece of information. The user will also be able to locate whatever they need by clicking the hyperlinked menu options under the title to revert back to wherever they need to go.
* Flexibility and efficiency of use:
  + The check out should be easier to use than the last iteration. Pagination and error checking will help with the progression of the checkout.
* Help users recognize, diagnose, and recover from errors:
  + Error checking (as in field checking) will help with identifying issues with form fill out. If a user tries to advance to the next page, the page will not refresh, but show which forms need attention and a reason why the form needs attention.
* Help and documentation:
  + Each text box is labelled and will move to the top of each box after filling the box out.

**Search Bar (8/10)**

* Visibility of system status:
  + The search bar is now larger and centered for user convenience. It also is colored with text inside to denote use.
* Match between system and the real world:
  + The new design now meets with real world expectations for a search bar. Features like autocorrect and suggestions are ubiquitous throughout real world examples.
* User control and freedom:
  + The user directly types into the box. It gives them the option to delete their query and click out as well for backtracking. The user can search or click whatever they need.
* Consistency and standards:
  + The search bar has a signifier (search for anything text) and a colored search bar to denote an interactive nature. It fits standards of modern design.
* Error prevention:
  + The search bar autocorrects the user’s query with a suggestion.
* Recognition rather than recall:
  + Each search displays the same results when given the same query. For example, the query “mouse” would always display the same suggestions for recognition over recall.
* Flexibility and efficiency of use:
  + The search bar displays different results based on query. It is flexible per user query and is efficient based on the user using it.
* Help users recognize, diagnose, and recover from errors:
  + Users will be met with an autocorrected suggestion under their original query if the search bar has identified the query as a typo.
* Help and documentation:
  + There is not documentation or help for this feature.

***Alonso’s Heuristic Evaluation***

**Customer Support and Contact Information (9/10)**

* Visibility of system status:
  + Our redesign does good in giving the user feedback on the status of the system. When a user clicks on the “Help” link, they get redirected to a new page that’s titled “Contact Information.”
* Match between system and the real world:
  + We made an improvement on the language provided in the customer support page, where the user can feel more welcomed and inviting. The previous language made it seem like providing help to the customer was a tedious task they didn’t want to deal with.
* User control and freedom:
  + The system already did a good job of making sure the user had the option of undoing their actions. The back button is provided on the page, allowing the user to undo their mistake if necessary.
* Consistency and standards:
  + Our redesign does very well in following regular standards, such as headers, bullet points, English language reading from left to right, and clickable links for more information.
* Error prevention:
  + Our redesign did good at not creating errors for the users in the first place. The help tab will take them straight to the “Contact Information” page and the user will be able to get the assistance they need.
* Recognition rather than recall:
  + Our redesign focused on condensing the information the original version provided, and making the context more readable and friendly. Thus our redesign did good at allowing the user to read with ease and not have an overload of information, allowing them to recognize more than to recall.
* Flexibility and efficiency of use:
  + The accelerator for this redesign, in this case, can be the fact that there’s a help tab easily reachable from any page. It’s accessible to both experienced and novice users.
* Help users recognize, diagnose, and recover from errors:
  + Our redesign didn’t really focus on this aspect of the system, but in the case that it did, it would follow the protocol of the other system aspects and display clear error messages when needed.
* Help and documentation:
  + The help documentation is this page, therefore I would say our redesign did a good job of providing the help users need.

**Product Discovery, Visibility, and Listings (7.5/10)**

* Visibility of system status:
  + The system does good in displaying feedback to the user, as far as actions done by the user goes. When a user clicks a tab the system responds with a menu, when a user clicks an item the system loads a new page with the product information; it does good at keeping the user informed about the system status.
* Match between system and the real world:
  + As far as typical terms, like “Add to Cart” and “Check Out” go, the website does a decent job to allow the user to purchase an item. And the website does good by providing the information in English, reading from left to right. The actual content of the website, however, has technical jargon that only some people will understand and know what they’re looking for.
* User control and freedom:
  + As far as undoing a mistake, the website does good by supporting the back button of the webpage and reversing user mistakes. Users are able to go back and forth between different product listings.
* Consistency and standards:
  + Although some terminology about the product categories can be unorthodox, the consistency and standards it follows compared to other e-commerce sites is good. The layout of elements on the website, such as the category tabs, the shopping cart, the search bar, etc., allows for users to be familiar with the site. They know to find the shopping cart at the top right corner of the page, or to find the category tabs along the top/left side of the page.
* Error prevention:
  + Product discovery through the logic of the search bar, has been improved so that a user can’t easily make a mistake and not find what they’re looking for. When it comes to product listings, the system already did a good job of displaying options and having that list error-free.
* Recognition rather than recall:
  + The system already does good at making objects visible for the user, and not having the user remember a lot of information. Recognition has been even further improved by making more information visible to the user.
* Flexibility and efficiency of use:
  + An accelerator from our redesign can be the quick access of product information when a user clicks the product link; this can be catered by both novice and experienced users. There aren’t any accelerators that are explicitly for experienced users only.
* Help users recognize, diagnose, and recover from errors:
  + The system already does well in helping users recognize errors, with good error messages that are in English and to the point. It also lets them know what they need to do in order to continue.
* Help and documentation:
  + Our redesign didn’t really focus on the aspect of providing help documentation to users, but in general the website has its own help documentation that is extensively informative.

**Product Filtering (9/10)**

* Visibility of system status:
  + Our redesign of the product filtering menu does a good job of providing feedback to the user when they click on an option. Everything from checkboxes to radio buttons, the user will know an action has occurred because the system will send feedback by showing a check mark in the selection they made.
* Match between system and the real world:
  + The language we use on our redesign is a huge improvement from the previous one. Users are now more familiar with the filtering options and the phrases used are more common.
* User control and freedom:
  + The redesign does good with allowing the user to pick and choose any options they desire to have. With this any option a user didn’t wish to select, a mistake, can easily be undone by simply checking the option. Users have the freedom to choose as they please.
* Consistency and standards:
  + Our redesign does well in staying with the standards that other e-commerce websites have. Users are familiar with the rectangular box, split up into different sections, for the users to select options from.
* Error prevention:
  + Our redesign focused on the layout and wording of the menu, in order to move away from the original design that caused errors. The logic and confusion behind the original has now been improved to reduce the amount of errors it had in the first place.
* Recognition rather than recall:
  + Our redesign does well in providing information that’s recognizable for the user, such as categories and manufacturer names. The user simply has to know what they’re looking for, and the menu will provide it for them; they don’t have to recall specific information.
* Flexibility and efficiency of use:
  + The filtering menu itself is an accelerator for both novice and experienced users, that allows for quicker searching within the site. Instead of having to do extensive searching within the site, the filtering menu can condense information for the user to select from.
* Help users recognize, diagnose, and recover from errors:
  + Although our redesign didn’t really focus on this aspect of the system, in the case an error did happen in the filtering menu, the menu would prompt the user with a message on what they should do to fix the issue.
* Help and documentation:
  + Our redesign didn’t focus on this aspect of the system that much, but its implementation is pretty straightforward. In the case the user can’t figure something out, they can go to the help document provided by the system already.

**Product Check Out: (9/10)**

* Visibility of system status:
  + The system already did a good job of providing feedback to the user, but our redesign made sure the feedback was much more visible; from clicking text fields to clicking buttons, every action was certified with some sort of feedback for the user to be sure their actions did something.
* Match between system and the real world:
  + Our redesign did good on making sure the information provided to the user is readable and understandable. It uses language that users are familiar with, such as big headers and phrases that are commonly used in other e-commerce sites.
* User control and freedom:
  + Our redesign, like the original, supports the back button on the page just in case a user makes a mistake. They can go back a page if they change their mind about a product or choose to leave the page entirely and go to the main menu.
* Consistency and standards:
  + We improved the system by making the placement of information follow standards more closely. Users are accustomed to having clear signifers on the price of a product, as well as the subtotal of the product. The placement of shipping and payment info also follows standard placement, as if users were handwriting the information.
* Error prevention:
  + When a user mistakenly adds a product to their cart, the system clearly shows a “Remove” button that will allow the user to delete the product from their shopping cart. They can also use the back button if they wish to fix information previously inputted on the other pages.
* Recognition rather than recall:
  + Our redesign focused on making sure the user never had to doubt how much the subtotal of a product would be. On every page, the product information follows the user, until they’re ready to pay. Hints in the text fields also allow the user to know what information is required in the box.
* Flexibility and efficiency of use:
  + Our redesign didn’t really provide accelerators in the sense that it will make processes go faster. It was meant to help users fill out everything necessary as efficient as possible, by providing text fields that are easy to follow. I believe it did good on catering for both novice and experienced users.
* Help users recognize, diagnose, and recover from errors:
  + Our redesign has required text fields, so if the user makes a mistake there will be pop up messages notifying the user of what missing information they need to input in order continue. Our redesign did good in this aspect.
* Help and documentation:
  + Our redesign didn’t really focus on this aspect of the system. Much of the redesign is meant to be straightforward for the user to know what they need to do. But just in case a user needs help they can seek the original website’s help documentation.

**Search Bar (9/10)**

* Visibility of system status:
  + Our redesign did a huge improvement on providing the user feedback by allowing the user to see recommendations made by the search bar. When a user is giving input in the text field of the search bar, the search bar responds with a drop down menu of plausible items the user might be looking for. This allows the user to verify their actions on the system.
* Match between system and the real world:
  + Our redesign does well in providing language that users can understand. This is part of the design aspect we were aiming for, where we help users figure out what they are looking for with suggestions and corrected phrases on the inputted search queries.
* User control and freedom:
  + Our redesign, like the original version provides the back button for the user to press when they have made a mistake. They can also choose to delete the original search query and input a different one if they wish to.
* Consistency and standards:
  + Our improved logic of the search bar now follows closer standards to that of other e-commerce websites. Users recognize the long text field at the top of the webpage, and the search bar icon (magnifying glass) next to the text field. Users also recognize the suggestions/auto-correct phrases from the drop down menu.
* Error prevention:
  + The logic of the search bar has been improved so that a user can’t easily make a mistake and not find what they’re looking for. Before, a user can make an incorrect search query and have to believe that the website didn’t carry that product, now the website provides word-corrections and asks the user to verify if that’s what they were looking for.
* Recognition rather than recall:
  + Once again, our redesign improved on the logic of the search bar by providing users suggestion and auto-corrections on search queries, therefore improving the recognition of product results. Users don’t have to spend too much time recalling information they can’t remember.
* Flexibility and efficiency of use:
  + Our redesign of the search bar does good in efficiency by providing the user the suggestions and auto-corrections. This makes it the accelerator of the system, since it’s meant to help both novice and experienced users of the website.
* Help users recognize, diagnose, and recover from errors:
  + In the case that the user does not input a search query, the system will provide an error message letting the user know that they need to input a search query in order to get results. Our redesign does well at handling this situation.
* Help and documentation:
  + Our redesign didn’t really focus on the help documentation of this aspect of the system, but rather improve the logic through presentation. The user can look for guidance through the help tab on the original website.

***Team Heuristic Evaluation***

**Customer Support and Contact Information (8.8/10)**

* We laid out the information much better for the users. It was simplified and condensed for better visibility to the user and users can now access the information much quicker; there’s no information overload. On top of that, we changed the language of the page and created a more friendly/welcoming environment for users; since it is a customer support page, the system should wish and seek to help its users as much as possible.

**Product Discovery, Visibility, and Listings (7.9/10)**

* Although we did a redesign to help visualize products, we didn’t consider other factors that could affect the system as a whole. The couple new features we implemented are not as popular as other features users are accustomed to seeing. The first one is hovering over the product description for a more detailed layout of what the item is about. The second is having a check mark or a cancel out sign to signify whether the product is in stock or not; these might require some training in order for users to understand their function. Also, when a user adds something to their cart and wish to remove it, they’re required to go to their actual shopping cart in order to remove it; it might take at least a few pages of dialogue not taking into account going back to the original page they were browsing through. Still better than before though.

**Product Filtering (8.2/10)**

* We updated the filter to fit more modern filtering menus that users are familiar with. With this new filtering menu, the user is free to use individual filtering functions as well as a combination of functions to display a desired set of product listings. However, we failed to include a “clear all” function that returns the (initial) standard set of product listings that appear as a result of a search query. The design restricts the user to following through with the filtered products, and forces the user to perform a new query, or navigate back to a previous page to clear filters.

**Product Check Out: (9.2/10)**

* This checkout process follows how most other websites do their checkout processes, so it’s easy for most users to understand what to do in each step. Each page during the checkout process outlines a simplistic process. The user must input information in order for the system to successfully process an order. The user is free to navigate back to any previous page to change: order information, billing information, shipping information, and payment information. Having these pages available for the user to navigate through, gives them control over the type of information they want to provide in the system. On top of that, the order page will keep information filled out in case a user needs to look back at each piece of information.

**Search Bar (9.2/10)**

* The concerning issue with the search bar was specifically the logic behind it. The UI aspect of the search bar had no faults since many users are familiar with a search bar, but the UX aspect did since its algorithm was disrupting user experience. The added logic of the search bar was a good addition as it would help users find products faster. For instance, the search bar will now accommodate for misspellings of search queries by offering a suggestion of “did you mean X?”, and would also autofill with suggestions as users were typing the queries. The search bar would also register similar search queries, like “pc monitor” and “computer monitor” to prevent false negatives (stating that a product is not available when it actually is). One member also mentioned that to further help users it would be ideal to save past search queries, in order to assist users in terms of the heuristic “recognition rather than recall.”