PULASKIZON

Team Pulaski

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ENSE 374 Fall 2022

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INTRODUCTION:

The goal of this project was to explore the software project management process and create a viable project that could realistically be implemented for public use. Some secondary goals were to learn the technology stack, HTML/CSS, JavaScript, Ejs, Mongoose and utilize it to complete this project.

PROJECT STORY:

We begun with the intention in mind to create a marketplace similar to other currently commercially available stores but with added features to distinguish ourselves to the users, which would be buyers and sellers. But the obvious barrier was that would have been too great of a scope, after evaluating the core functionality of those sites we began by listing by user stories in on our Kanban board available at https://github.com/users/Rsa149/projects/3/views/1 and also pictured below in Figure 1. As one can see there are several cards that state various features and if one were to view the details of the card they would see a user story for example the search user story is along the lines of as a buyer I want to be able to search through products to find what I'm looking for quicker. The user stories were then split into what we believed should make up our initial MVP. Our core user stories included the ability to view products. The Kanban board also guided our project documentation, for example the project requirements document pictured in Figure 2 is directly influenced from the user stories in MVP # 1. From there we did a rough sketch of what the marketplace should look like drawing from pervious user interface design guidelines, initially the menu was in the top bar but was later moved to the side as seen in Figure 3. The Hi fidelity prototype created in Figma available at and pictured in figure 4 took into consideration how the navigation would flow and the overall aesthetics of the final design. The

hi fidelity prototype allowed us to mock user interactions and check to see if all of our core user stories were being met. It also provided a template for when we began to code the project.

Figure 1: Screenshot of Kanban Board

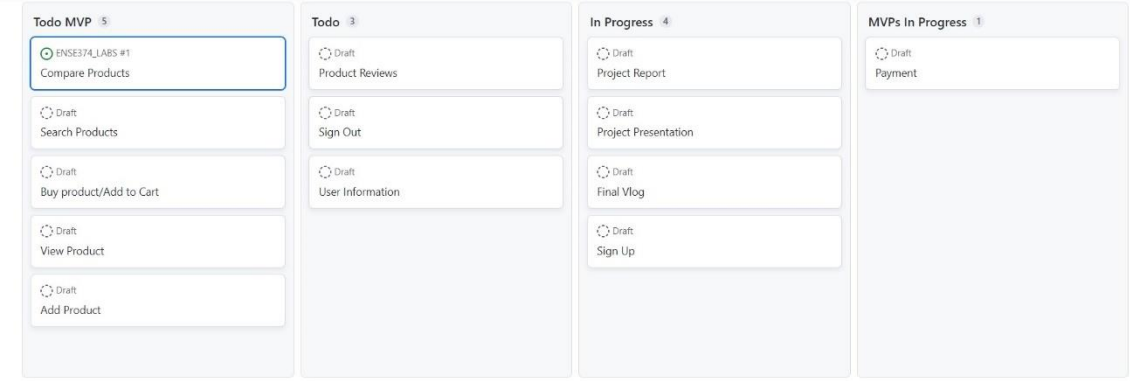


Figure 2: Screenshot of project Requirements document

PROJECT REQUIREMENTS DOCUMENT	
Project Name	ENSE 374 Project - Team Pulaski
Functional Requirements	
- Must be a small/medium sized web based software application following the Model, View, Controller Architecture - Must be completed by the project deadline around the end of the Fall 2022 term - Users must be able to view products - Users must be able to create new products - Users should be able to browse and search for products - Users should be able to contact sellers in order to make a purchase - Users should be able to view product details	
Technical/Performance Requirements	
This project must be completed using technologies learned in class such as HTML/CSS JavaScript and it's libraries alongside MySQL, Mongoose alongside others that may have learned. Minimum response time is on average 200 milliseconds to 1 second, for this project we will aim for an upper limit of 1 second. As well as, GitHub will be used for the storage of all project files and documentation.	

Figure 3: Screenshots of Lo- Fi prototype

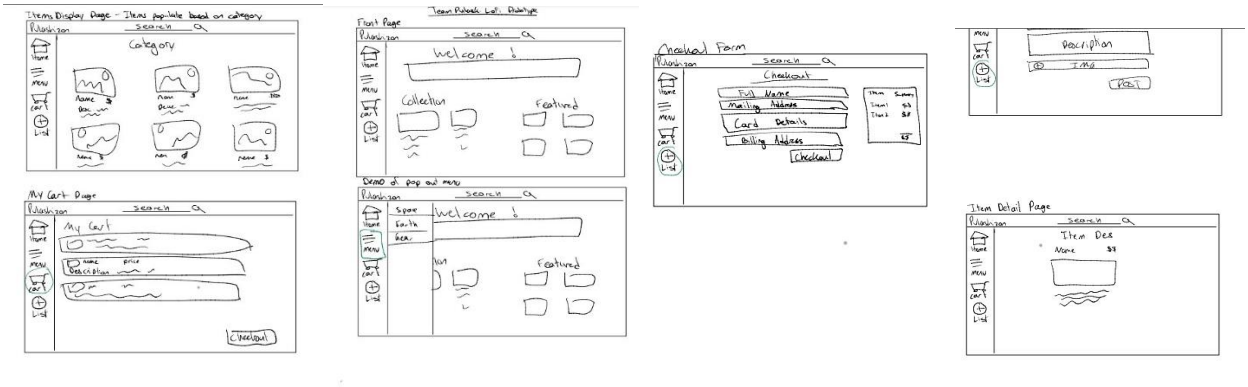
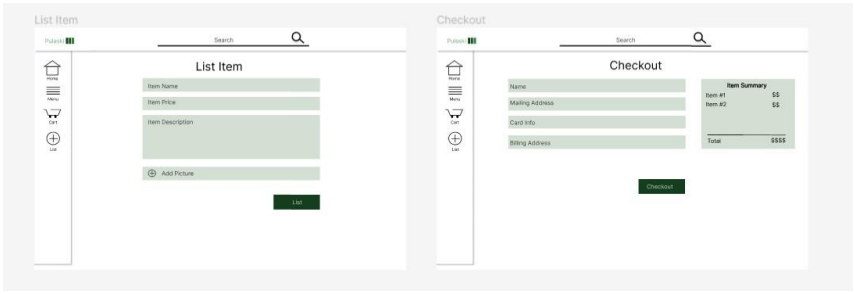
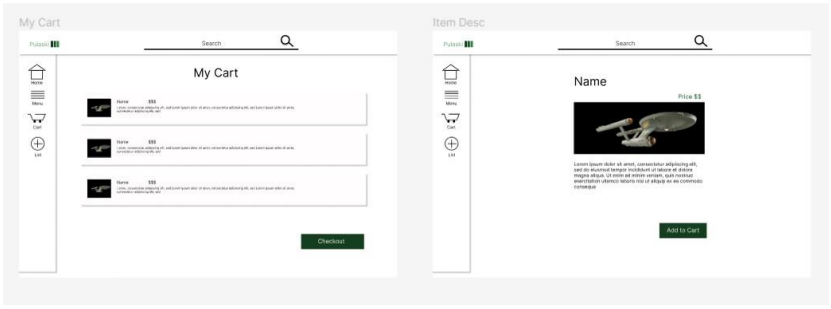
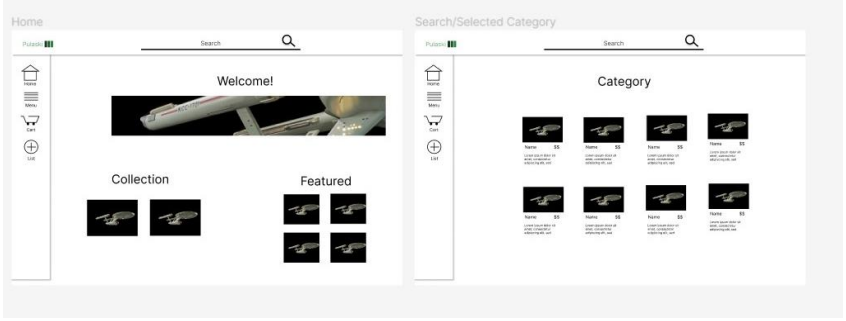


Figure 4: Screenshots of Hi-Fi Prototype







FEEDBACK:

After the initial project planning phase, we received quite a bit of feedback that we implemented into our project or after deliberation we pushed to future MVP's. The largest pieces of feedback was regarding the cart and checkout functionality. Initially, for buyers to facilitate a purchase they would add items to their cart and then fill out a checkout form where their shipping and payment information would be gathered. The main issue was in terms of security, for example what assurance would the buyer have that the seller would actually provide the product listed after payment and how we would ensure that the actual payment process would be. So after considering several alternatives such as a live chat on the message board or listing the sellers contact details within the post but ultimately landed on a contact form to replace the add to cart function and a message board to replace the cart. This allows for buyers to only offer their info to sellers they choose and then sellers can initiate contact with people they know is interested. This also allows sellers to build a greater connection with their customer base as they are being contacted individually. The other piece of feedback we received was to add a login and logout functionality, initially we had user accounts in MVP # 1 but pushed them to MVP # 2 as the functionality did not require user accounts except to post items for sale, after we decided on adding the message board we decide to also include user accounts and a logout button as it would increase the ability to customize the user experience. A few prices of feedback that were pushed to MVP # 2 due to time and resource constraints, were adding a proximity to item feature on each post, and differentiating features on sellers and buyers user accounts. Overall, the feedback the we received through out the process was very valuable and pushed the project in the right direction.

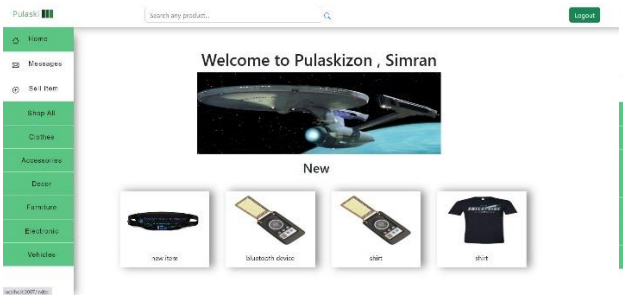
EVALUATION:

There are two parts to meeting our goal the fist is whether the goal of using the project planning tools available to us to successfully plan the project an the other is the actual execution of the project. For the first goal we feel as if we have met the expectations of this goal, we utilized several documents such as a project charter, stakeholder register alongside GitHub and Figma to successfully create a realistic protype and project guidelines/limitations.

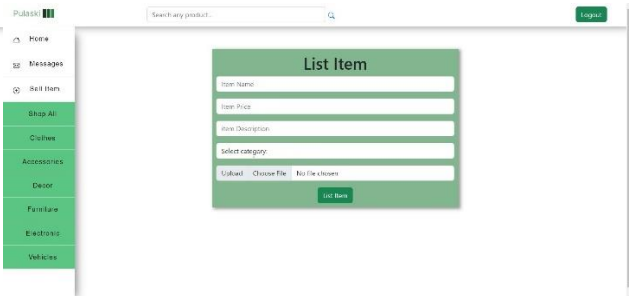
The second goal was to code the MVP # 1 of this project which was also successfully completed sample pictures are given in Figure 5. We utilized the technologies and languages used in class to create this project. For the front end and main body of the web documents HTML and CSS were used. The CSS is only usable in a desktop, mobile implementation will come in a later MVP. For the controller EJS was used alongside several extension packages such as express, and passport. The model was a MongoDB database which is manipulated through mongoose. The functions within app.js either read or write from the database and then render the correct information retrieved from the database into the partial file associated with that path. Overall, all of our user stories in the first MVP were implemented within the code below are pictures of the completed MVP running in the local host.

Figure 5: Screenshots of MVP #1

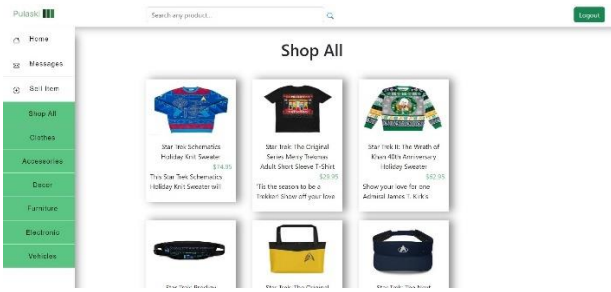
Home Page



Item List Form

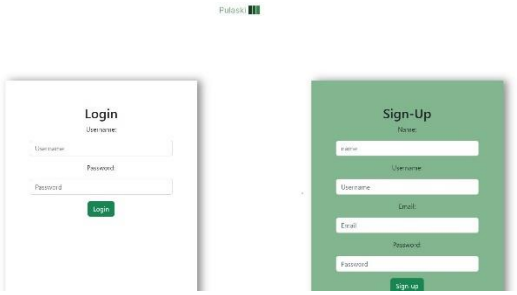


Shop All Categories Page

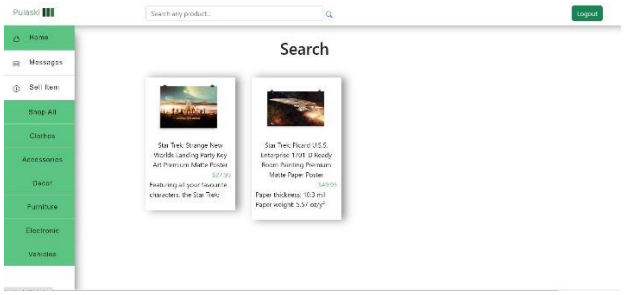


Item Detail Page

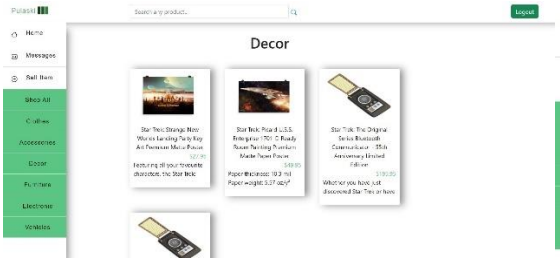
Login/ Register Page



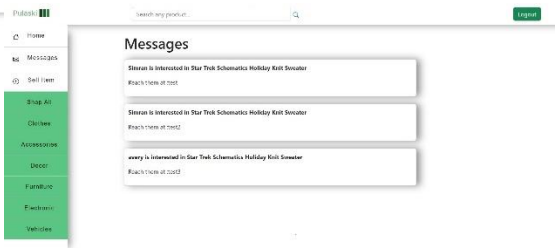
Search Results page



Category Results page



Message Board Page



REFLECTIONS:

Simran- Despite some of the challenges I really enjoyed working on this project and many of the lessons I have learned will reflect in my future work. Initially, I was overwhelmed by the amount of work the project seemed to be as I was new to any type of web-based development. But as I learned about software management and different web-based technologies the workload seemed more manageable. I am very proud of our MVP as it has shown that I am able to create a usable and useful application from beginning to end. On a personal level I learned that breaking the work down over the amount of time we have to complete it, is very important to me and when the work starts to pile up do to not working on it a few days created unnecessary stress. I will definitely be using scrum approach within my future projects as it clicked very well with me over the duration of this project. I would like more help with learning how to manage a team workload more specifically how to delegate tasks effectively moving forward. I really enjoyed the process from beginning to end and am looking forward to similar projects in the future.

Basheer- I felt really excited to do this project. I feel like I learned a lot of new things and I certainly believe I would be able to use them in the future. The thing I disliked about the project was the scope given since two months isn't that long to explore all the ideas we had, which is why I'm looking forward to the Capstone project where teams can work more efficiently and possibly have more MVPs. I was very proud of how our team decided to pick itself up even though our first demo received quite a few obstacles. I'm very proud that our team appreciated the feedback and came across those obstacles to produce a usable working web based application. I learned that I'm not that good at picking up tasks in a project myself, instead I found out I worked more efficiently when tasks were assigned to me. I hope to improve myself in choosing different tasks in a project on my own since one day I might be responsible for a

team and if I can’t even assign tasks for myself, how would I assign tasks for the other project members. I will definitely adopt different project management techniques such as agile and also I would really like to use sprints since our team couldn’t use that in this project. I would like the opportunity to try different project management techniques in future projects as I found out that these techniques seemed very useful in this project. I really liked working on this project and hopefully I get to work on more fun and innovative projects in the future.

CONCLUSION:

Overall, our team worked well together to utilize the software management process to create the MVP for our project. We achieved the goals we set out at the beginning and learned some valuable lessons not only about the software management process but also abut the limitations and strengths of certain technologies and of ourselves individually.

SOURCES

Mock items were referenced from real items available at https://startrekshop.ca/