ITWS 1100 - Final Project Paper
Team 2
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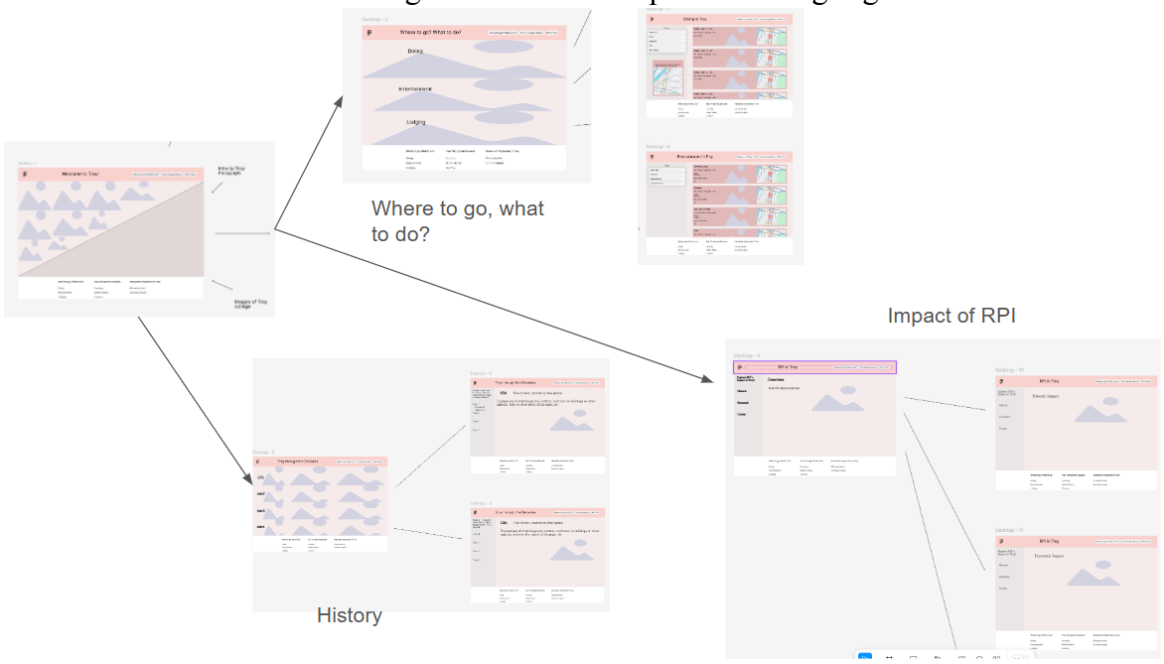
12/07/2024

Our web application, “Explore Troy”, functions as a tour guide for Troy, providing information about where to stay, eat, shop, local attractions, and the history of the city. It’s aimed at prospective visitors and new residents who are unfamiliar with the area and want to explore what Troy has to offer. Unlike the city government website, which focuses mainly on services and news, our site dives deeper into the city's culture and history, offering a more engaging experience. This is especially important as Troy is growing quickly and more people are interested in living or visiting the area, especially with RPI located in the city.

Internally, the site uses HTML, CSS, JavaScript, and JSON data files to create a welcoming user interface and simple functionality. One section, “Things to Do,” covers entertainment, events, shopping, dining, and lodging options. A filter was added to help users find accommodations based on the type or place, or ratings, for example. Another section, “Troy Through the Decades”, shares the city’s history and significance, including its early settlers. Finally, there is a section dedicated to RPI, its economic impact on the city, and its contributions nationwide.

The initial architecture and design of the site were planned using Figma:



To keep track of our progress, we used one Kanban chart for the whole team, and had one chart for each member. For the overall team Kanban chart, the tasks are generalized, such as “main page functionality/functionality”, which ensures that there are no errors in our website overall. In our individual Kanban charts, on the other hand, there are sticky notes that are more specific to the task of the member. For example, Morwen’s Kanban chart, in the finished section, includes “change/alter images so that they match the web application”. This is very specific to Morwen’s tasks as one of her main tasks is to be responsible for all design aspects of the web application. To fulfill this task, she made images into collages for the main page and many others and toned down the general brightness so that words can be seen over the collages. The following are screenshots of each Kanban chart during the later stages of our site’s development:

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For our welcome page, we decided to style it so that it is split diagonally: the top half with pictures of Troy, and the bottom half an overview of our objective. We decided to set it up

this way so that it looks enticing for the users. Referencing the Glutenberg diagram, our high fallow area would mostly consist of the fun places to go in Troy, which would leave a positive impression on the city. Afterward, in the low fallow area, they could read our objective statement and have a better idea of what this web application is about.

For our Where to go, What to do subpage, we decided to split the page up into 3 sections: dining, entertainment, and lodging. Each section has background images of what dining, entertainment, or lodging looks like in Troy to give the user a good idea of what life is like. When the user clicks on a section, it takes them to a page of either places to eat, sleep, or be entertained with filters such as check boxes and sliders to find exactly what they may want.

Similar to the "Where to go" section, the historical section has a main navigation page with three parts: 1700's, 1800's, and 1900's. Each subsection has a picture representing it, and a button to bring the user to each respective page. Those pages each have information on key events and people during that time period with their own pictures.

The RPI in Troy section also contains its own navigation page, divided into sections for a short history of Rensselaer, its impact in Troy, and its economic impact. Each section is formatted similarly to the general history section, with information on key events and people, and images as visual aides.

Each page was designed with a global header and footer, and maintained a common color scheme. This was done to keep consistency. The footer provided an extra way to navigate between the subpages. The Where to go sections each had their own general layout with the filter on the left, and generating simple flexboxes on the right. The style was made to be minimalistic and easy to use, while still being aesthetically pleasing to users. The other main sections were styled the same to keep simplicity, while still providing the user information clearly and elegantly.

For site functionality, we chose to use javascript, jquery, and json to load information over php and a mysql database. Our main reasons for this was having no need for inputting or deleting data frequently, and not needing users to input data of their own. Though having the data in the front-end of the site can be considered unsafe, the altering of the data wouldn't pose any security risks for the site itself, and it would only harm the experience of the user who wanted to alter the data.

Using javascript, there were 2 main challenges. First, the method and layout of the script had been designed, however the json data had to be changed multiple times as we developed what places would be filtered by (rating, removing the price range attribute initially proposed, and simplifying the types). The second problem was simply designing how the information would be generated for the user. Before work could begin on functionality, we had to design a

uniform format for the information to be stored, and how the information for each place would be organized and styled.

From our initial Figma mockup, the RPI impacts page looked different from the Where to go page and History page. While our Where to go page and History page was split up into sections with collages of images with test over it that are linked to a subpage, our RPI impacts page had a sidebar with linking and an overview. In our actual web application, we changed the RPI impacts page so that it matches with the Where to go and History page. This is so that the website could be more organized and navigable for users.

After the completion of the project, we all felt we gained a better understanding of not only the languages we used to make the site, but the methods used to plan and execute a full development process. We also felt that we learned how to work more effectively as a team, how to communicate our goals and issues with each other, and ways to work together to help accomplish each of those goals.

Though the project is complete relative to our initial plan, there are some steps we can take to update it. First, we want to get feedback from a broad range of users, ideally prospective residents, students and/or parents of students looking to come to Rensselaer, and some people already living in Troy. An idea we already have is to implement a map system to show the routes of public transportation. This would allow users who may not have been able to visit places they saw in the site to go, or people traveling to better plan their trips.