

Our UI vs AI Generated UI

Using AI for doing different kind of tasks is getting popular nowadays, and some people are afraid of them not for the AI's taking life and trying to conquer humanity, no, they are afraid because they can replace us at working. Recently, a lot of AIs are becoming popular for making amazing draws based on simple natural text, which is very impressive. Other example of this is the text generating AI's that can do efficient research on the web and synthesize the important information on seconds.

The main topic of this activity is to evaluate and compare the capacity of a popular text generating AI (Chat-GPT) to create a prototype for the user interface of our project. We are aware that the best existent AI today to make this exercise is Galileo AI, that can generate prototype interfaces based on natural text; but unfortunately, it is still not available for public access and anyone of the members could get access to it. So, the AI that we are using for this activity is ChatGPT. As its name says, it's a chat interface based AI where you can ask for something that you need and you will get an immediate answer to that. Obviously, it can fail so, you need to understand how to make the questions and formulate in an efficient and understandable way so the bot can interpret the thing you want successfully. Although ChatGPT is not capable of generating the explicit images of what we wanted, the AI is capable of generating the HTML and CSS code for the interface that we asked.

After trying a lot of times, this was the best question that we formulated for the AI, this criteria is based on the answer that we got. Our answer was the following:

"I need to build a webpage with HTML and CSS, could you generate the code? The project is about an informative webpage that contains different types of help for students, like scholarships, students exclusive discounts and other types of benefits. The webpage needs to include a navbar with the most important elements on the webpage and a search engine to filter keywords. Also, the following software requirements should be reflected on the code. They divide on functional and non functional.




The functional are:


- 1. The system must present outstanding information about the system's features.*
- 2. The system must be able to filter the benefits and scholarships by their Category and Availability*
- 3. The system will show a link to the page of each search result*
- 4. Selecting the selection displays a list of items with a name, item description, and image.*

And the nonfunctional are:


- 1. The system shall load in no more than 10 seconds.*
- 2. User-friendly design that enables easy navigation and a seamless user experience.*
- 3. The system shall provide accurate information.*
- 4. The user will be able to reach the required information in a maximum of 5 clicks.*
- 5. The colors used will not hurt the user's vision with prolonged use."*

Here is a screenshot of the answer to that question:

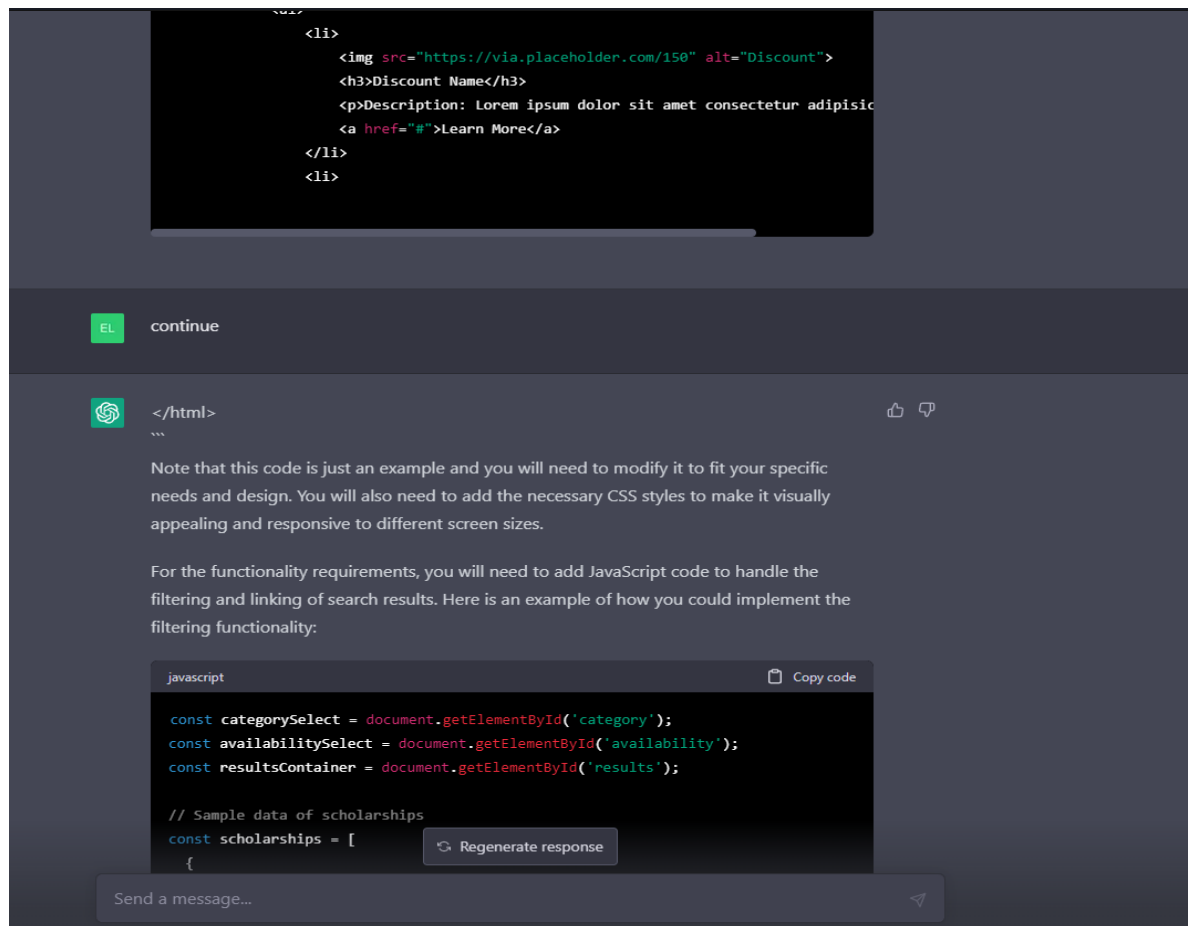
 Certainly! Here's an example code for a webpage with HTML and CSS that meets the requirements you specified:  

```
html  Copy code

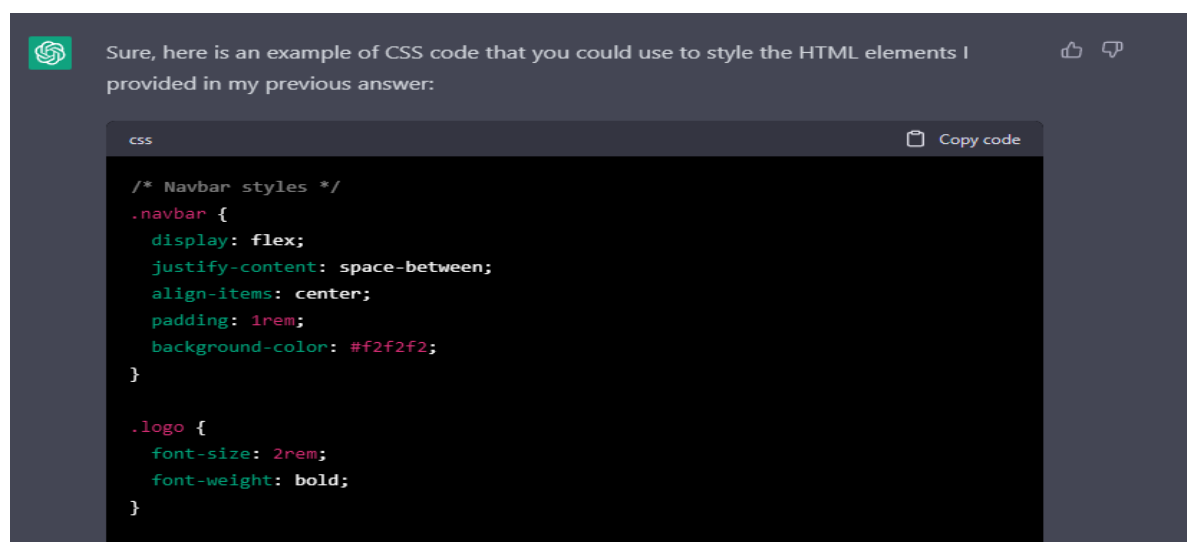
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Student Benefits</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <header>
    <nav>
      <h1>Student Benefits</h1>
      <form>
        <input type="text" placeholder="Search...">
        <button type="submit">Search</button>
      </form>
      <ul>
        <li><a href="#">Scholarships</a></li>
        <li><a href="#">Exclusive Discounts</a></li>
        <li><a href="#">Other Benefits</a></li>
      </ul>
    </nav>
  </header>
  <main>
    <section>
      <h2>Scholarships</h2>
      <form>
        <label for="category">Category:</label>
        <select id="category">
          <option value="all">All</option>
          <option value="tuition">Tuition</option>
          <option value="books">Books</option>
          <option value="housing">Housing</option>
          <option value="transportation">Transportation</option>
          <option value="other">Other</option>
        </select>
      </form>
    </section>
  </main>
</body>
</html>
```

 Regenerate response

We want to show how the AI stopped generating the code almost at the end of the HTML code, we don't know if this is related to the complexity of the question we asked, but, it's very impressive that the AI can resume the code and the CSS part by just asking it to do.

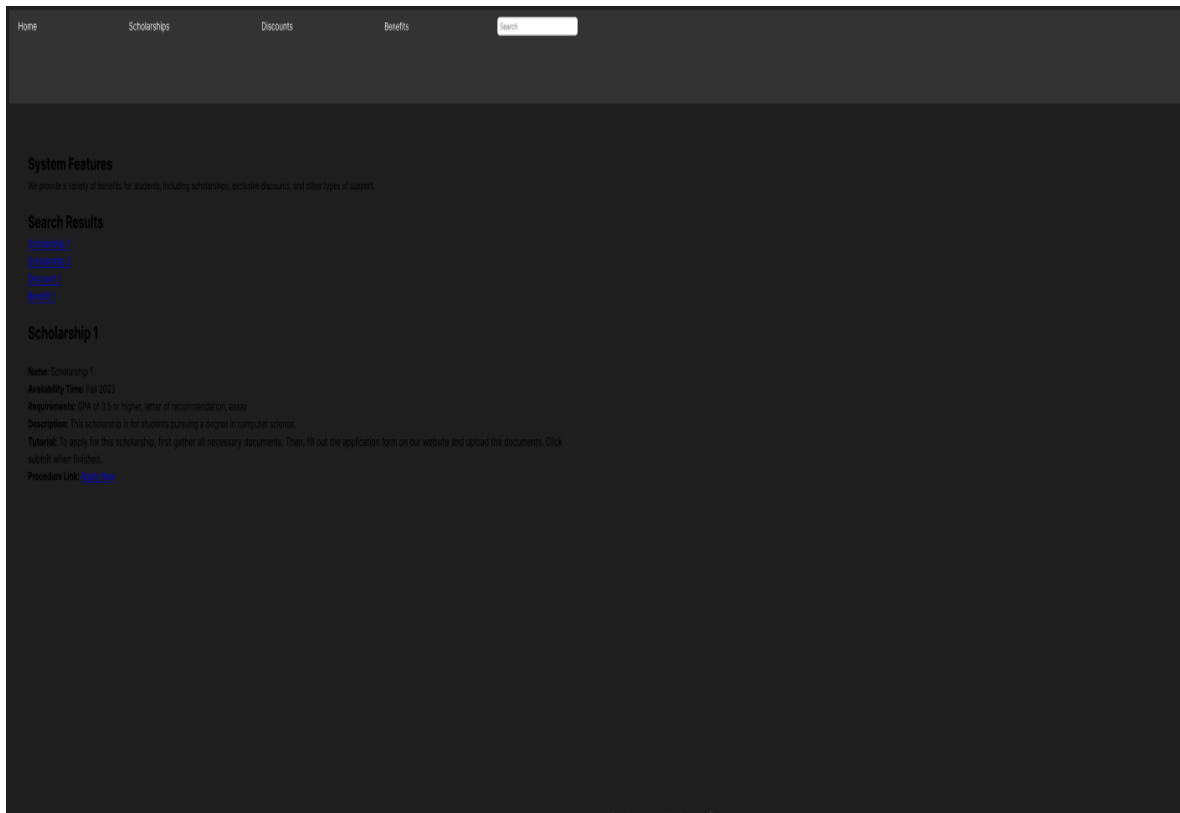


The AI missed the CSS petition and generated a javascript code to complement the previous code, and explicit said that we can add the CSS code if we want, but we asked the AI to do it for us:



To get a more accurate answer, we tried to make the question again specifying to only create the HTML and CSS code, and finally, we get a result.

For making this activity with even less interferences from human actions, we used a plugin for Figma called “code.to.design”, which takes code snippets and turn them into a prototype. The result of this is the following interface:

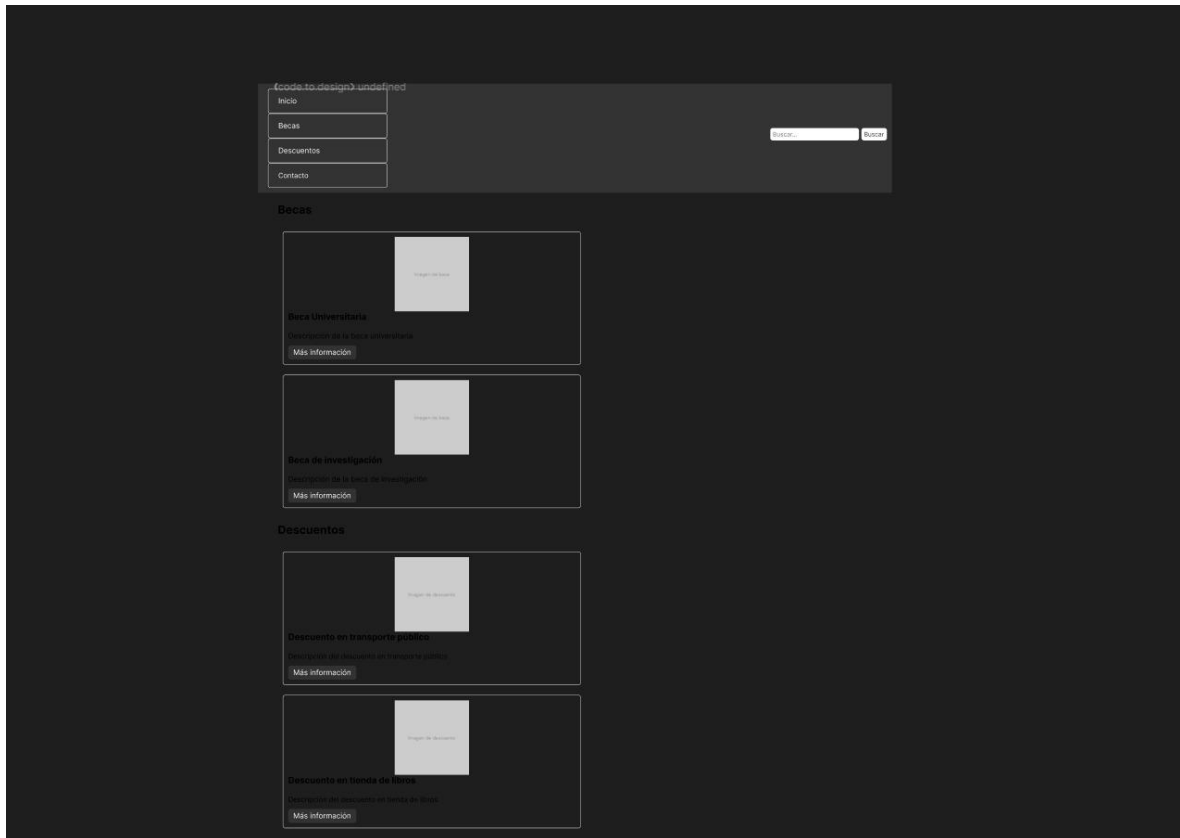


Our first impressions are:

- It's impressive that this is generated by an AI in almost nothing.
- The design looks very simple.
- Looks like the project of a beginner.

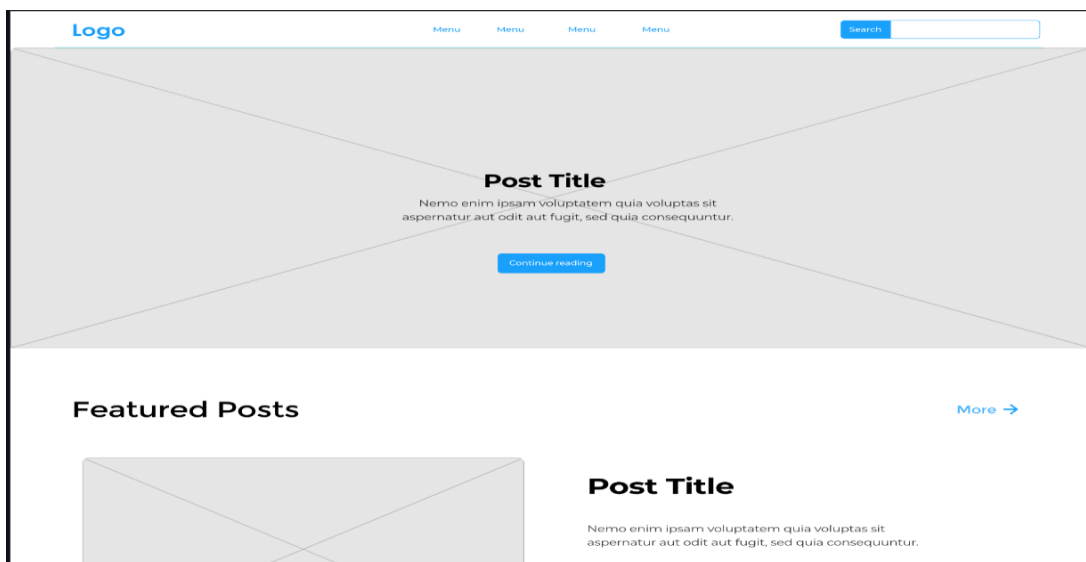
In depth look, we can observe that the AI made a very literal interpretation of the requirements by putting them as “System Features”. The AI did not interpreted the requeriments so well, there are no images, and the colors are not totally accurate, they are friendly to the human eye, but not everything is too readable.

We even asked the AI to make some changes and the we also get mixed results:



Now we can see that there are images and we have a more suitable structure overall, but the navbar messed up.

If we compare it with the design that we have, we can assure that it is a better choice, not only for have a more aesthetic look, but it sticking to the requeriments:



To complement, we asked the AI to generate the code for a single post, with the following question:

“According to your previous answers, generate the HTML and CSS code for a single post of a benefit”

This is the graphic result of the previous question:



We can see that has a nice look, but the AI didn't follow the same scheme of colors, and did not follow the requirements of use images and other direct links.

So we can already tell that using ChatGPT for design an UI is not the best choice nowadays. But maybe it's only matter of time that this could change. Maybe if we used other AI focused in design like GalileoAI could be a better choice, but we couldn't due to different situations.

Working on this activity was interesting because we tested the capacities of ChatGPT to generate code. Doing designs for that AI is not the best part of it, but it can even generate functional PHP code for different modules of a webpage, like simple calculators. We don't think that this could replace us, we think that this AI's will be a great tool to improve our productivity and we are excited to see what this AI's are capable to do in a couple years.