CSCI 4970/6970 Front-End Web Development CLASS PROJECT FALL 2022 (Total Points: 100)

Recreation of CS Dept. Website

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Oct 29, 2022

Abstract

Non-fungible token (NFT) has become the fastest-growing decentralized application after decentralized fiance (DeFi) on the blockchain market. Bored Ape Yacht Club (BAYC) and Azuki are two of the most successful NFT projects.

Just like other physical merchandise, it also requires a marketplace (e.g., Amazon and Walmart.com) to sell the NFTs. Opensea.io is the biggest marketplace on the NFT market now. Your goal in this project is also to create your own marketplace for an NFT project.

1 Objectives

In this project, students are supposed to learn:

1. How to design a website
2. How to use HTML5 + CSS3 to fulfill the requirement of your design
3. How to use JavaScript and jQuery

2 Guideline and Steps

2.1 Draft Your Website (20 Points)

In this phase, you are going to make a sketch or wireframe for your website. Examples could be found in Figure 1 and Figure 2. When you are designing your website, please follow the guideline presented in Chapter 17 of textbook.

2.1.1 Requirements

1. Every page of your website should contain a CONSISTENT HEADER and FOOTER.
    - Your header should contain a logo, a title and a navigation bar. You can either use the one in the existing CS website or create one by yourself.

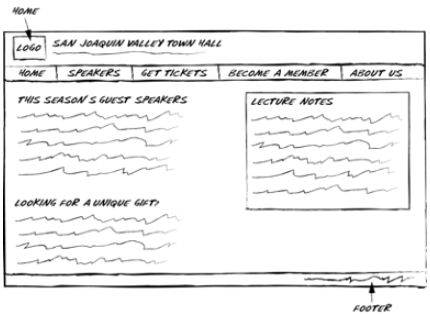

Figure 1: Sketch

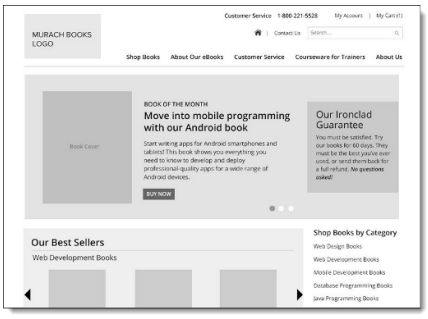

Figure 2: Wireframe

- Your footer should contain some extra information like your name, copyright, contact etc.
- You can consider to add more items to header or footer. like a Google search bar. But keep in mind that, simpler is better.

2. Required Pages:

   i) Home page. Put all content that you think the users might want to learn quickly here. You can refer to Appendix A.1 and find useful information to show on the website.

   ii) NFT gallery page.

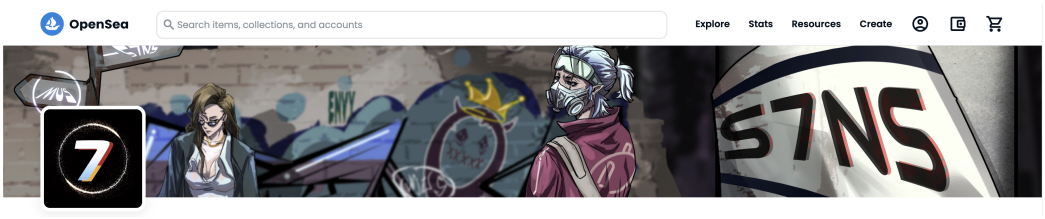

Figure 3: Logo and Banner

   - A banner shows the major content or theme of the NFT collection. (See Figure 3, provided in nft.zip file)
   - A logo of the collection (provided in nft.zip file).
   - When users click a picture, open a new page (NFT Detail Page, see below).
   - Filter the pictures by properties/traits. (See Figure 4) Hint: Reset "innerHTML" based on the filter.

   iii) NFT Detail Page (10 pts). It shows the properties/traits of the picture (See Figure 5. You don't need to show the percentage numbers). You should reorganize the layout to make it look better. And add a button at the bottom of this scene and it will navigate the user to the official website.

3. Optional Pages - You can create any page that you want to. You have 2.5 points bonus for each optional page and totally up to 5 points for this bonus.

2.1.2 Submission

Compress all design images together in zip or 7z format (Due: Nov 6, 2022).

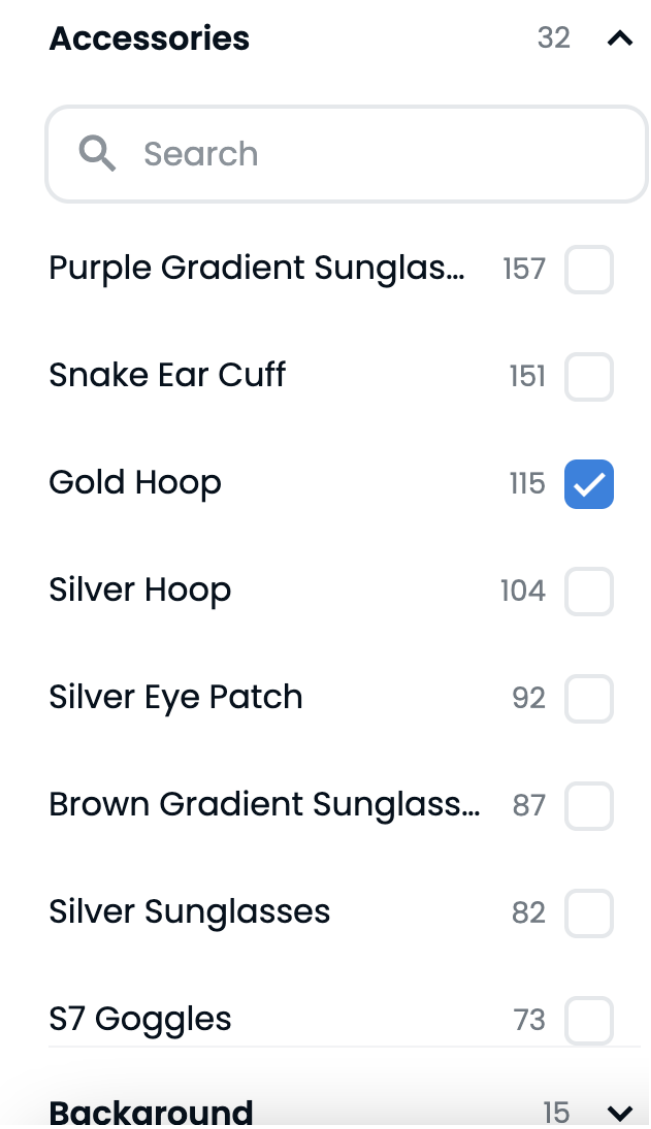

Figure 4: Filter

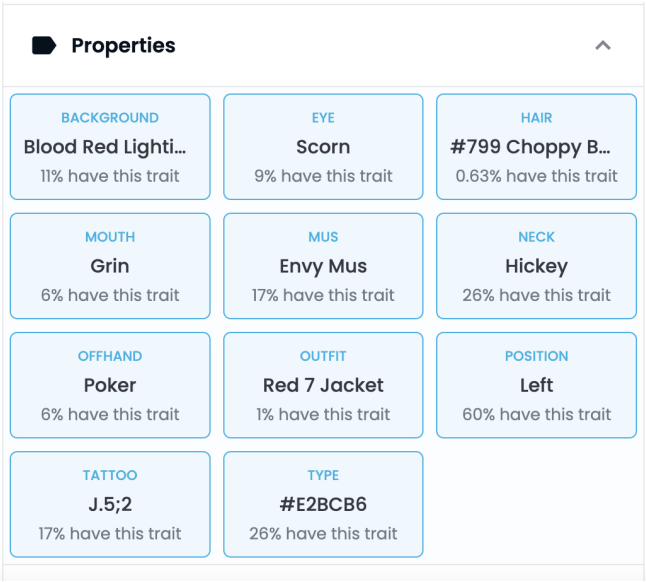

Figure 5: Logo and Banner

2.2 Implement Your Website (80 Points)

In this phase, you will implement the website with all skills that you learn in this course. Here are the requirements. Note that you don't need to fulfill the all requirements in a single page. As long as some pages satisfies the requirements then it's fine.

2.2.1 Requirements

1. Use HTML forms.
2. Use HTML tables.
3. Use Images.
4. Use CSS3 with external style sheet.
5. Use two column layout somewhere.

2.2.2 Grading Scheme

1. Homepage (20 pts)
2. NFT Gallery (50 pts)
3. NFT Detail Page (10 pts)

2.3 The JSON Data

You can find the metadata of every NFT in the json.zip file.

To access the data for a NFT picture, just add the picture ID after the base URL. For example, to get the first picture: "1.json".

Here is the example:

```
{
    "name": "S7NER #1",
    "image": "QmWXGwFKN7C1Uco6teN2tcxchj7XhGzQQjEc1kASYqmnjR",
    "attributes": [
        {
            "trait_type": "Background",
            "value": "Gluttony Fruit"
        },
        {
            "trait_type": "Offhand",
            "value": "Sake"
        },
        ...
        {
            "trait_type": "Position",
            "value": "Left"
        }
    ]
}
```

2.3.1 Property: name

The name of the NFT picture.

2.3.2 Property: image

The url of the picture. We just need the CID:
QmWXGwFKN7C1Uco6teN2tcxchj7XhGzQQjEc1kASYqmnjR.
And use this url format to get the picture:
https://s7nspfp.mypinata.cloud/ipfs/CID
For example:
https://s7nspfp.mypinata.cloud/ipfs/QmWXGwFKN7C1Uco6teN2tcxchj7XhGzQQjEc1kASYqmnjR

2.3.3 Property: attributes

The traits of the NFT picture. Each one is a key-value pair. For example, in Figure **??**, we see the trait "Background" and its value "Dark Blue". In this case, "Background" is the "trait_type" and "Dark Blue" is the "value".
NOTE: We only need to show the first 50 pictures.
We will discuss more about the API and JSON in the class.

2.3.4 Submission

Host your website somewhere (GitHub Page, Vercel, etc.) and submit the URL to your website. (Due: Dec 4, 2022 - No extension).

Appendices

A Supported Materials

Note: The following content is just for your reference.

A.1 Home Page Content

A.1.1 Name of the NFT Collection

S7NS STATION

A.1.2 Creator

S7NS

Items	3333
Created	Aug 2022
Creator Royalty Fee	6%
Blockchain	Ethereum

Table 1: Information

A.1.3 Description

A collection of S7NS STATION Genesis NFTs that give you ticket access to The Station Of Sins. With Stakeholder System, the first dynamic minting smart contract: ERC721-S7, and an innovative airdropping smart contract, S7NS STATION will provide passengers with utilities from various sources. The seven deadly sins - pride, envy, anger, sloth, greed, gluttony, and lust are the inspirations for the artwork. The boundaries between the digital and biblical worlds are becoming hazier, and new regulations are emerging.