

**HACETTEPE UNIVERSITY
ENGINEERING FACULTY
DEPARTMENT OF COMPUTER ENGINEERING**

**BBM 325
INTERNSHIP REPORT**

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**Performed at
Hacı Ömer Sabancı Foundation**

**01/07/2021 - 19/08/2021
30 days**

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1 Introduction

I did my internship in the IT department of the Hacı Ömer Sabancı Foundation.
I worked in the front-end field in the department.

2 Company Information

2.1 About the company

Hacı Omer Sabancı Foundation (abbreviated as Sabancı Foundation) is established on March 22, 1974 by Sabancı brothers, led by late Sakip Sabancı, with an aim to institutionalize the Family's philanthropic tradition.

Main target areas:

- Education
- Culture Arts
- Social Change

2.2 About your department

I did my internship at Sabancı Foundation Information Technologies Department.

Topics of interest to the department:

- Front-end development
- Mailing
- Back-end development

I worked on front-end and mailing among these subjects in the department.

2.3 About the hardware and software systems

HTML, CSS and JavaScript are used for front-end.

PHP is used for the back-end.

Apart from these, many tools such as Google Analytics, Related RMC, CSM are used, but I will give detailed information about them in the details of my work in the 3rd topic(Work Done).

2.4 About your supervisor

- Name and surname: Ahmet Hakkı Karaçanlı
- Address: İstanbul
- Telephone number: 0533 810 79 76
- Email address: ahmethakki@sabancivakfi.org
- Kadir Has University Computer Engineering (2014)

3 Work Done

3.1 Updates on the Sabancı Website

3.1.1 Introduction

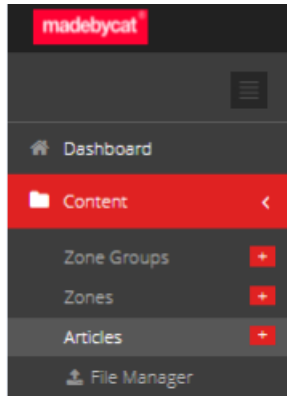
We had to make some updates to the Sabancı website. These were sent to us as word files. I made these updates with “madebycat CSM”.

I made changes on 7 pages and made 14 new pages during my internship.

Tool I used during this work:

madebycat CSM:

Thanks to this tool, we can easily make the necessary updates and additions to the Sabancı website. When a task comes, all we have to do is write the html code of the relevant place using CSM.



Each html page is called article.

3.1.2 Making Updates With CSM

The first 3 weeks of my internship were focused on this job.

Here is one of the tasks I did:

Sabancı Foundation organizes grant programs and competitions every year. In this process, I need to update the grant programs of the last year and add the information of the new grant programs to the website.

First, I choose the html page I want to change as an article via CSM.

Then I make the updates that I need to do in the HTML code of the article. This completes the update.

When I need to add a new html page, I select the article of the page to be added. then I write my HTML code via CSM. After doing the same for the English version of the website, I connect the English and Turkish pages to each other via CSM.

The screenshot displays the madetycat CMS interface. On the left is a dark sidebar with a menu containing 'Dashboard', 'Content', 'Zone Groups', 'Zones', 'Articles', and 'File Manager'. The 'Content' menu item is highlighted in red. The main area has a top navigation bar with 'All Sites' and 'File Manager' links. Below this is a 'Search' header and a breadcrumb trail: 'Home > Content > Articles > Search'. A blue 'Article Create' button is visible. The central part of the page is titled 'Article Search' and contains a form with the following fields: 'Keyword:', 'Choose Zone:' (with a 'Select Zone' dropdown), 'Search In:' (with an 'Articles' dropdown), 'Status:' (with checkboxes for 'Active', 'Passive', and 'Deleted'), 'Language:' (with a 'Select Language' dropdown), 'Article ID(s):' (with a text input and a note 'Multiple article IDs separated by commas, '), 'Article Alias:', 'Classification:' (with a 'Select Classification' dropdown), 'User:' (with a 'Select User' dropdown), 'Choose Tag:' (with a 'Select Tag' dropdown), and 'File Types:' (with a 'Select File Type' dropdown).

Create / Edit Article

Home > Content > Articles > Search

Send To Approve

Basic | Advanced | SEO | Revision History

Status: **ACTIVE** | PASSIVE | DELETED

Classification: Not Classified

Language: Please Select

Zones*: Select a Zone

Article Type: Internal Article

Navigation Display: Display as Item

Sub Zone: No Sub Zone

Menu Text:

Headline:*

Article Content:

(Due to the company's privacy policies, I cannot share any more pictures or details about CSM.)

Being A Woman in Yüksekova 2

Project Summary

Grantee : Association of Supporting Women and Culture in Yüksekova

Purpose : In order to combat violence and discrimination against women in Yüksekova, developing gender equality awareness of women, informing them in the focus of fundamental rights and services and supporting their access to services

Location : Hakkâri

Grant Amount : 180.732 TL

Project Partner : Violence Prevention and Monitoring Center Directorate, Hakkari Bar Association, Yüksekova Directorate of Social Service Center, District Health Directorate, Yüksekova District Governorship

Period : 13 July 2020 - 12 July 2021

Ongoing Projects

Alphabetically A-Z

Being A Woman in Yüksekova 2

Grantee: Association of Supporting Women and Culture in Yüksekova
Grant Amount: **180.732 TL**
Location: Hakkâri
Year / Status: 2020 - **Continues**

Bilingual Reading Development Applications for Turkish Sign Language Knowing Deaf Children 2

Grantee: Association of People with Hearing Impairment of Turkey
Grant Amount: **262.400 TL**
Location: Turkey
Year / Status: 2021 - **Starting**

Deaf and Hearing Impaired Women's Rights Education Platform

Grantee: Dem Association
Grant Amount: **293.550 TL**
Location: Turkey
Year / Status: 2021 - **Starting**

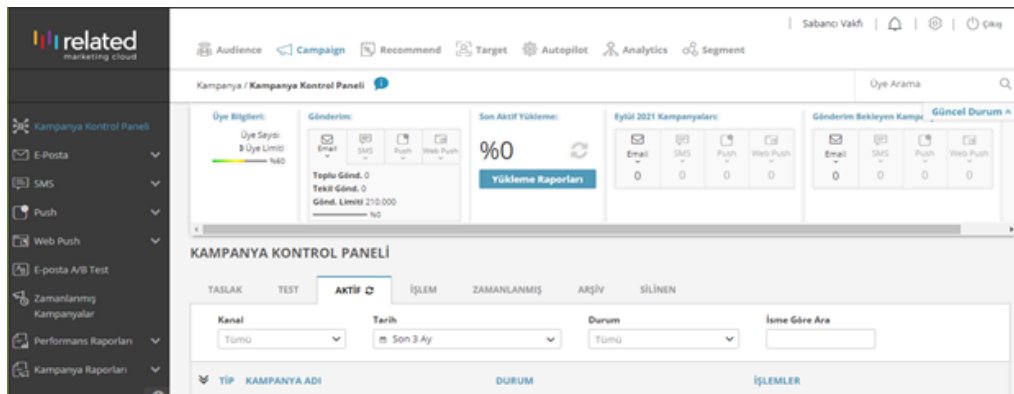
3.2 Mailing

3.2.1 Introduction

Sometimes I was given the task of mail to be sent to various groups (Scholars, students, etc.).

Tools:

Related RMC:



3.2.2 Mailing Task

The names and e-mails of the group to be mailed are sent as an excel folder.

After uploading this excel file to Related RMC and specifying the e-mail and name columns, the group to which the e-mail will be sent is prepared.

Then The content of the e-mail to be sent, such as pictures, voice messages, links, etc. is prepared using HTML.

[illegible]

After the e-mail is prepared, it first goes through the spam test, and then it is forwarded to the test group that includes the company employees. If there is no problem at these stages, it is forwarded to the prepared group and the task is completed.

3.3 Web Project

3.3.1 Introduction

During my internship, I was making changes to the web pages of the Sabancı Web Site in general, but I had never coded a site by myself. They gave me an individual web development project to see this side of the business and improve my CSS and JavaScript knowledge.

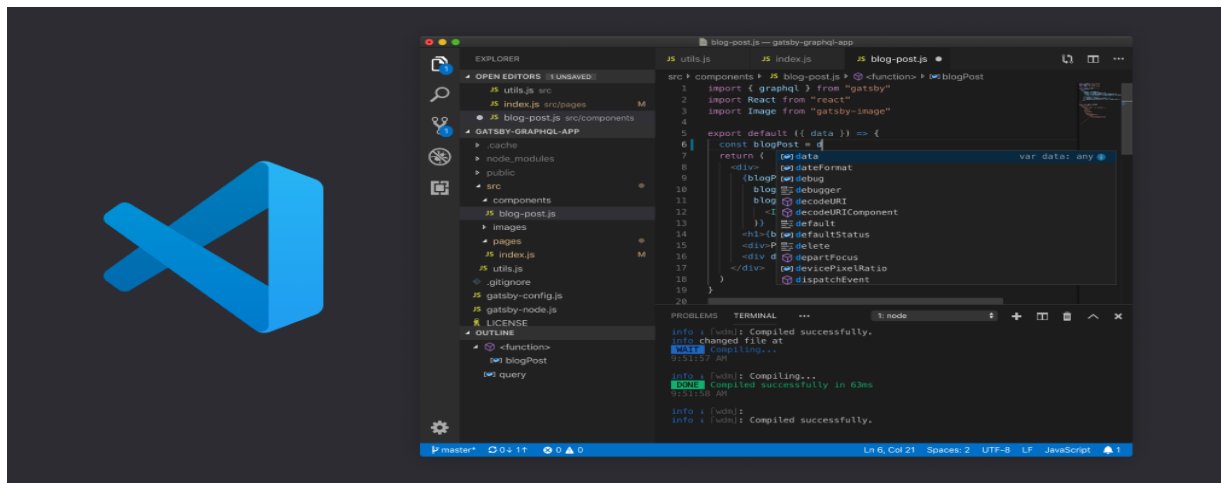
Things must be coded for this project:

- 1- Home page, News Page, Products Page etc.
 - a. Navigation bar
 - b. Banner Slide
 - c. News section with “read more” button
 - d. Footer
- 2- 3 filter for products
- 3- A search bar
- 4- Comparison for products

I made a **Graphics processing unit (gpu) benchmark website** for this project. So, in this report I will use “gpu” word for products on the website.

Tools and Programming Languages I Used:

Visual Studio Code:



Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control. It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDEs, such as Visual Studio IDE.

HTML:



HyperText Markup Language (HTML) is the set of markup symbols or codes inserted into a file intended for display on the Internet. The markup tells web browsers how to display a web page's words and images.

JavaScript:



JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.

CSS:



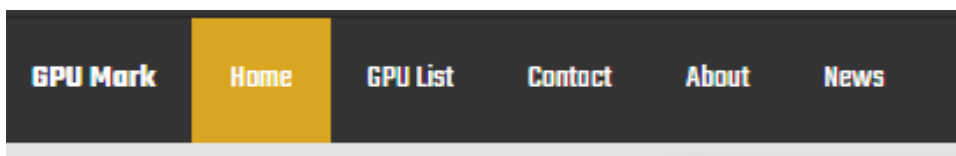
CSS stands for Cascading Style Sheets. It is the language for describing the presentation of Web pages, including colours, layout, and fonts, thus making our web pages presentable to the users. It is independent of HTML and can be used with any XML-based markup language.

3.3.2 HTML Pages & CSS

First, I included bootstrap5 and google font in my html. I coded a CSS class “home-body” for home page design. Then I made a navigation bar for the whole website and fixed its position. I used a “active” class for nav-bar buttons.

```
25 <body class="home-body teko-style">
26 <!--home sayfası için class ve font style için class-->
27 <!--navbar-->
28 <div class="navbar-items">
29 <a href="#" class="navbar-item brand"><b>GPU Mark</b> </a>
30 <a href="home.html" class="navbar-item active">Home</a>
31 <a href="gpulist.html" class="navbar-item">GPU List</a>
32 <a href="#footer" class="navbar-item">Contact</a>
33 <a href="#footer" class="navbar-item">About</a>
34 <a href="news.html" class="navbar-item">News</a>
35 </div>
36 <br>
37 <br>
38 <br>
```

Navbar Code



Navbar

I prepared a slide that will show pictures and news that are suitable for the topic of the website. For this I used the "carousel" class from bootstrap. I also used columns and rows from bootstrap for shape of page.

```
41 <div class="row">
42
43   <div class="col">
44
45   </div>
46   <div class="col-9">
47     <!--banner slide-->
48     <br>
49     <div id="carouselExampleIndicators" class="carousel slide shadowbox" data-bs-ride="carousel">
50       <div class="carousel-indicators">
51         <!--banner slide sayfa butonları-->
52         <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0" class="active"
53           aria-current="true" aria-label="Slide 1"></button>
54         <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="1"
55           aria-label="Slide 2"></button>
56         <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="2"
57           aria-label="Slide 3"></button>
58         <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="3"
59           aria-label="Slide 4"></button>
60         <button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="4"
61           aria-label="Slide 5"></button>
62       </div>
63       <!--banner slide resimler-->
64       <div class="carousel-inner">
65         <div class="carousel-item active">
66           
67         </div>
68         <div class="carousel-item">
69           
70         </div>
71         <div class="carousel-item">
72           
73         </div>
74         <div class="carousel-item">
75           
76         </div>
77         <div class="carousel-item">
78           
```

Slide Code #1

```
77   <div class="carousel-item">
78     
79   </div>
80 </div>
81 <!--banner slide next-pre butonları-->
82 <button class="carousel-control-prev" type="button" data-bs-target="#carouselExampleIndicators"
83   data-bs-slide="prev">
84   <span class="carousel-control-prev-icon" aria-hidden="true"></span>
85   <span class="visually-hidden">Previous</span>
86 </button>
87 <button class="carousel-control-next" type="button" data-bs-target="#carouselExampleIndicators"
88   data-bs-slide="next">
89   <span class="carousel-control-next-icon" aria-hidden="true"></span>
90   <span class="visually-hidden">Next</span>
91 </button>
92 </div>
93
```

Slide Code #2



Slide

I made a footer to use on all pages. I got the social media icons from font-awesome and added effects to the icons using CSS.

I also designed responsive with row and column classes from bootstrap.

```
155 <!-- footer -->
156 <div class="container-fluid footer" id="footer">
157   <div class="row">
158     <div class="col col-10 col-sm-10 col-md-7 col-lg-7">
159       <span style="font-size: 8rem; float: left;">GPU MARK</span>
160     </div>
161     <div class="col col-2 col-sm-2 col-md-2 col-lg-2">
162       <br>
163       <span style="font-size: 1.2rem;"><b>Contact Us</b></span>
164       <ul style="text-align: left;">
165         <li><i class="fab fa-facebook-square footer-icon"></i></li>
166         <li><i class="fab fa-instagram footer-icon"></i></li>
167         <li><i class="fab fa-twitter footer-icon"></i></li>
168       </ul>
169     </div>
170     <div class="col col-12 col-sm-12 col-md-3 col-lg-3">
171       <br>
172       <span style="font-size: 1.2rem;"><b>About Us</b></span>
173       <p style="text-align: left;">Lorem ipsum dolor sit, amet consectetur adipisicing elit. Similique, natus repudiandae non consequatur
174       repellendus veritatis officia provident amet, facere magni hic inventore distinctio saepe eum repellat, sint
175       assumenda. Quaerat repellat molestiae dolorem fugit cupiditate esse, nihil quia obcaecati. Aut itaque
176       voluptatem amet beatae soluta eos esse nisi quis saepe distinctio!
177     </p>
178   </div>
179 </div>
180 </div>
181 </div>
```

Footer Code



Footer

I created html pages that look the same for each gpu. Each page contains picture, the gpu's information and recommendation score. I used rows and columns from bootstrap while making these. I also created "shadowbox" class for shadow effect.

```

39 <div class="container-fluid shadowbox">
40 <div class="row justify-content-between shadowbox bg-warning">
41 <div class="col col-12 col-sm-12 col-md-6 col-lg-6">
42 <div id="img">
43 <!--img-700 classı boyut ayarlı-->
44 </div>
45 </div>
46 </div>
47 <div class="col col-12 col-sm-12 col-md-5 col-lg-5 align-self-center">
48 <br>
49 <br>
50 <table class="table table-dark table-striped" id="table">
51 <thead>
52 </thead>
53 <tbody>
54 <tr>
55 <td>Core Clock(s):</td>
56 <td>1500 MHz</td>
57 </tr>
58 <tr>
59 <td>DirectX:</td>
60 <td>12</td>
61 </tr>
62 <tr>
63 <td>Max Memory Size:</td>
64 <td>12288 MB</td>
65 </tr>
66 <tr>
67 <td>Bus Interface:</td>
68 <td>PCIe 4.0 x16</td>
69 </tr>
70 <tr>
71 <td>Max TDP:</td>
72 <td>220 W</td>
73 </tr>
74 <tr>
75 <td>Process Size:</td>
76 <td>8 nm</td>
77 </tr>
78 </tbody>
79 </table>
80

```

Gpu Page Code #1


```

80 </table>
81
82
83
84 </div>
85 </div>
86 <br>
87 <br>
88 <br>
89
90 <div class="row justify-content-between shadowbox bg-dark">
91 <div class="col col-12 col-sm-12 col-md-9 col-lg-9 align-self-center">
92 <div class="">
93 <p style="font-size: 1.1rem; color: ■white;"><b style="font-size: 1.6rem; color: ■goldenrod;">The GeForce RTX 3080 Ti is an enthusiast-class graphics card by
94 Built on the 8 nm process, and based on the GA102 graphics processor, in its GA102-225-A1 variant,
95 the card supports DirectX 12 Ultimate. This ensures that all modern games will run on GeForce RTX
96 3080 Ti. Additionally, the DirectX 12 Ultimate capability guarantees support for
97 hardware-raytracing, variable-rate shading and more, in upcoming video games. The GA102 graphics
98 processor is a large chip with a die area of 628 mm² and 28,300 million transistors. Unlike the
99 fully unlocked GeForce RTX 3090, which uses the same GPU but has all 10496 shaders enabled, NVIDIA
100 has disabled some shading units on the GeForce RTX 3080 Ti to reach the product's target shader
101 count. It features 10240 shading units, 320 texture mapping units, and 112 ROPs. Also included are
102 320 tensor cores which help improve the speed of machine learning applications. The card also has 80
103 raytracing acceleration cores. NVIDIA has paired 12 GB GDDR6X memory with the GeForce RTX 3080 Ti,
104 which are connected using a 384-bit memory interface. The GPU is operating at a frequency of 1365
105 MHz, which can be boosted up to 1665 MHz, memory is running at 1188 MHz (19 Gbps effective).</p>
106 </div>
107
108 </div>
109
110

```

Gpu Page Code #2

[GPU Mark](#)
[Home](#)
[GPU List](#)
[Contact](#)
[About](#)
[News](#)



Core Clock(s):	1370 MHz
DirectX:	12
Max Memory Size:	12288 MB
Bus Interface:	PCIe 4.0 x16
Max TDP:	350 W
Process Size:	8 nm

The GeForce RTX 3080 Ti is an enthusiast class graphics card by NVIDIA, launched on May 21st, 2021. Built on the 8 nm process, and based on the GA102 graphics processor, in its GA102-255-A1 variant, the card supports DirectX 12 Ultimate. This ensures that all modern games will run on GeForce RTX 3080 Ti. Additionally, the DirectX 12 Ultimate capability guarantees support for hardware raytracing, variable rate shading and more. In upcoming video games, the GA102 graphics processor is a large chip with a die area of 620 mm² and 76,300 million transistors. Unlike the fully unlocked GeForce RTX 3080, which uses the same GPU but has all 10496 shaders enabled, NVIDIA has disabled some shading units on the GeForce RTX 3080 Ti to reach the product's target shader count. It features 10240 shading units, 320 texture mapping units, and 112 ROPs. Also included are 320 tensor cores which help improve the speed of machine learning applications. The card also has 10 raytracing acceleration cores. NVIDIA has paired 12 GB GDDR6X memory with the GeForce RTX 3080 Ti, which are connected using a 288-bit memory interface. The GPU is operating at a frequency of 1365 MHz, which can be boosted up to 1665 MHz, memory is running at 1100 MHz (10 Gbps effective).

Score
95





Gpu Page

I created an “ul” for listing products. I gave each list element a class "d-flex" from bootstrap. This way I was able to properly display the elements of the element such as picture, name and score. Then I add a button called “compare”. This way I added 10 gpu to the list.

```

106 <!--ekran kartları listesi-->
107 <ul class="gpu-list" style="list-style: none;">
108 <li>
109 <li class="list-item d-flex"><a href="rtx3080ti.html" class="N"></a>
111 <p class="align-self-center" style="margin-right: 0.5rem;">Nvidia</p>
112 <p class="align-self-center">RTX 3080 ti</p><button type="button"
113 class="btn btn-secondary align-self-center ms-auto compare-check">compare</button><span
114 class="badge bg-success ms-auto align-self-center" title="95"> <b>Score </b>
115 <hr> 95
116 </span>
117 </li>
118 <li class="list-item d-flex"><a href="rtx3070.html" class="N"></a>
120 <p class="align-self-center" style="margin-right: 0.5rem;">Nvidia</p>
121 <p class="align-self-center">RTX 3070</p><button type="button"
122 class="btn btn-secondary align-self-center ms-auto compare-check">compare</button><span
123 class="badge bg-success ms-auto align-self-center" title="91"> <b>Score </b>
124 <hr> 91
125 </span>
126 </li>
127 <li class="list-item d-flex"><a href="gtx750ti.html" class="N"></a>
129 <p class="align-self-center" style="margin-right: 0.5rem;">Nvidia</p>
130 <p class="align-self-center">GTX 750 ti</p><button type="button"
131 class="btn btn-secondary align-self-center ms-auto compare-check">compare</button><span
132 class="badge bg-danger ms-auto align-self-center" title="40"> <b>Score </b>
133 <hr> 40
134 </span>
135 </li>
136 <li class="list-item d-flex"><a href="rtx2060.html" class="N"></a>
138 <p class="align-self-center" style="margin-right: 0.5rem;">Nvidia</p>
139 <p class="align-self-center">RTX 2060</p><button type="button"
140 class="btn btn-secondary align-self-center ms-auto compare-check">compare</button><span
141 class="badge bg-success ms-auto align-self-center" title="80"> <b>Score </b>
142 <hr> 80
143 </span>
144 </li>

```

	Nvidia RTX 3080 ti	<button>compare</button>	Score 86
	Nvidia RTX 3070	<button>compare</button>	Score 81
	Nvidia GTX 750 ti	<button>compare</button>	Score 40
	Nvidia RTX 2060	<button>compare</button>	Score 80

Gpu List

For comparison, I added a compare button to navbar in gpulist.html. This button contains a “span” for displaying number of elements which select for comparison. I used bootstrap for its design.

```

<!--compare butonu-->
<button type="button" class="btn btn-warning ms-auto align-self-center position-relative" id="compare"
  style="margin-right: 2rem;">
  Compare
  <span
    class="position-absolute top-20 start-100 translate-middle p-2 bg-danger border border-light rounded-circle">
    0
  </span>
</button>

```

Compare Button Code

I used “select” tag for filtering the elements. There are three filter for brand, category, and order.
 Brand: Nvidia, Amd.
 Category: high end, low end, mid range.
 Order: Decreasing Score, Increasing Score.
 Each has an “onchange” attribute.

```

53 <div class="row">
54
55   <div class="col-12 bg-secondary d-flex justify-content-evenly">
56     <!--filter column-->
57
58     <span style="float: left; font-size: 5rem;" id="gpu-list-brand" class="align-self-center"><b><span
59       style="color: #goldenrod;">G</span>PU List</b></span>
60     <br>
61     <br>
62     <br>
63     <br>
64     <br>
65     <!--filtreler-->
66     <div class="filter align-self-center">
67       <select name="brand" id="brand" class="filter-select" onchange="itemFilter()">
68         <option value="all" selected>Brand</option>
69         <option value="N">Nvidia</option>
70         <option value="A">Amd</option>
71       </select>
72     </div>
73     <br>
74     <br>
75     <div class="filter align-self-center">
76       <select name="category" id="category" class="filter-select" onchange="itemFilter()">
77         <option value="all" selected="selected" class="filter-btn">Category</option>
78         <option value="High" class="filter-btn">High End</option>
79         <option value="Mid" class="filter-btn">Mid Range</option>
80         <option value="Low" class="filter-btn">Low End</option>
81       </select>
82     </div>
83     <br>
84     <br>
85     <div class="filter align-self-center">
86       <select name="order" id="order" class="filter-select" onchange="orderByScore()">
87         <option value="all" selected="selected" class="filter-btn">Order</option>
88         <option value="first" class="filter-btn">Decreasing Score </option>
89         <option value="second" class="filter-btn">Increasing Score</option>
90       </select>
91     </div>
92     <br>
93   </div>

```

I create a “form” tag. Then I added an “input” tag and a button in it for searching. Also, this “form” tag has “onsubmit = return false;” attribute to prevent refreshing the page.

```

96 <div class="col-12 bg-light">
97   <!--search kısmı-->
98
99   <form class="d-flex" id="search2" onsubmit="return false;">
100     <!--return false; ile sayfanın yenilenmesi önleniyor-->
101     <input class="form-control me-2" type="text" placeholder="Search" aria-label="Search">
102     <button class="btn btn-outline-warning" type="submit" id="search-btn-2"
103       onclick="searchFunc2()">Search</button>
104   </form>

```

Search Bar

Finally, I made a news page. Each new in this page has a picture, an introductory text and a read more button. While coding read more button I used “collapse” class from bootstrap. I also added a YouTube video for each news.

```

45 <div class="container-fluid">
46   <div class="row shadowbox bg-dark">
47     <div class="col col-12 col-sm-12 col-md-12 col-lg-3 bg-warning">
48       
49       <!--img-news class1 resim boyutunu ayarliyor-->
50     </div>
51     <div class="col col-10 col-sm-10 col-md-10 col-lg-8 align-self-center">
52       <p class="p-news"><b style="color: ■goldenrod; font-size: 1.6rem;">J</b>ust over 3 weeks ago we unleashed
53       upon the world AMD FidelityFX Super Resolution [1], probably one
54       of our most anticipated technologies ever. On June 22, we announced that FSR was available in 7
55       games on the day of launch, with 12 more games coming with FSR in the future, and we are delighted
56       with the positive reception everyone has given FSR. Today, we have some more exciting news, with
57       more games getting FSR support, the release of FSR for developers on GPUOpen, and FSR support in
58       Unity and Unreal® Engine.</p>
59     </div>
60     <div class="col col-1 col-sm-1 col-md-1 col-lg-1 align-self-end">
61       <!--read more butonu-->
62       <button class="btn btn-dark" type="button" data-bs-toggle="collapse" data-bs-target="#new1"
63         aria-expanded="false" aria-controls="new1">
64         Read more <i class="fas fa-arrow-down"></i>
65       </button>
66     </div>
67   <!--read more butonu hedefi-->
68   <div class="collapse" id="new1">
69     <br>
70     <br>
71     <br>
72     <br>
73     <p class="p-news">More Games Available with FSR
74     We know that many of you are loving our cutting-edge spatial upscaling technology and using it to
75     boost your framerates while still enjoying high-quality, high-resolution experiences in games like
76     Anno 1800, Godfall, and DOTA 2, and today we're super excited to announce that even more games are
77     getting FSR starting tomorrow, July 16.</p>
78     <br>
79     <iframe width="720" height="540" src="https://www.youtube.com/embed/WoqvJWNaUqI"
80       title="YouTube video player" frameborder="0"
81       allow="accelerometer; clipboard-write; encrypted-media; gyroscope; picture-in-picture"
82       allowfullscreen></iframe>
83     <br>
84     <h4 style="color: ■white;">FSR is Here for Developers</h4>
85     <hr style="color: ■white;">
86     <p class="p-news">If you are a game developer, since our announcement on June 22, you've probably been
87     counting the

```

3.3.3 JavaScript Functions

getScores(): Function that gets the scores from gpu list and returns.

Pseudo Code:

Create an empty list

For each item in gpulist

Get score of item in to a string

Push the string to list

Return list

```

265 //tüm ürünlerin skorlarını alan fonksiyon
266 function getScores(){
267     let scores = [];
268     itemlist.forEach(function(item){
269         let score = item.lastElementChild.getAttribute("title");
270         scores.push(score);
271     })
272     return scores;
273 }
274

```

getScores() Code

orderByScore(): Function that works by changing the select option of the order filter from the filters section.

Pseudo Code:

Get the option value from “select” in to a string

Get the scores in to a list

If option value is different than “all”

sort the score list

If option value is “Increasing”

reverse the score list

For i in 0 to lenght of score list

For item in gpu list

If item is equal to list[i]

Insert item to gpulist[i]

End this loop

```

277 function orderByScore(){
278     let order = document.getElementById("order").value; //sıralama türünü belirleme
279     let scorelist = getScores(); //tüm skorların listesi
280
281     //sıralamanın belirlenmesi
282     if (order !== "all"){
283         scorelist.sort();
284     }
285     if (order === "first"){
286         scorelist.reverse();
287     }
288
289
290
291     for (let i = 0; i < scorelist.length; i++){
292         itemlist.forEach(function(item){
293             if(item.lastElementChild.getAttribute("title") === scorelist[i]){
294                 item.parentNode.insertBefore(item,item.parentNode.querySelectorAll[i]);
295                 return;
296             }
297         })
298     }
299 }

```

orderByScore() Code

itemFilter(): This function work when select option of brand or category filter is changed. It filters items in the gpulist according to brand and category filter.

Pseudo Code:

```
String brand = Get the value of brand select option
String cat = Get the value of category select option
Boolean hideByBrand = True
Boolean hideByCat = True
For item in gpulist
    Get integer score of item
    String title = "Low"
    If score is bigger than 74
        title = "Mid"
    If score is bigger than 84
        title = "High"
    If title is equal to cat
        hideByCat = False    (don't hide the item according to category filter)
    If brand is equal to "all"    (if brand filter didn't change)
        hideByBrand = False    (don't hide the item according to brand filter)
    If hideByCat is equal to False
        Display item
    Else
        Hide item
    If cat is equal to "all"    (if category filter didn't change)
        hideByCat = False    (don't hide the item according to category filter)
    If hideByBrand is equal to False
        Display item
    Else
        Hide item
    If cat is not equal to "all" and brand is not equal to "all"
        (if both brand and category filter has changed)
        If hideByBrand is equal to True or hideByCat is equal to True
            Hide item
        Else
            Display item
hideByBrand = True
hideByCat = True
```

```

196 //filtreleme fonksiyonu (brand ve category için)
197 function itemFilter(){
198
199     let brand = document.getElementById("brand").value;
200     let cat = document.getElementById("category").value;
201
202     let hideByBrand = true; //brand e göre gizle
203     let hideByCat = true; //category e göre gizle
204
205
206     itemlist.forEach(function(item){

```

```

206         itemlist.forEach(function(item){
207             //skor a göre kategori belirleme-----
208             let score = parseInt(item.lastElementChild.getAttribute("title")); //score u int e çevir
209             let title = "Low";
210             if (score > 74){
211                 title = "Mid";
212             }
213             if (score > 84){
214                 title = "High";
215             }
216             //-----
217             if (title === cat){
218                 hideByCat = false;
219             }
220
221             if (brand === "all"){
222                 hideByBrand = false;
223                 if (hideByCat === false) {
224                     item.className = "list-item d-flex";
225                 }
226                 else {
227                     item.className = "list-item hidden";
228                 }
229             }
230             if (cat === "all"){
231                 hideByCat = false;
232                 if (hideByBrand === false) {
233                     item.className = "list-item d-flex";
234                 }
235                 else {
236                     item.className = "list-item hidden";
237                 }
238             }
239             if (brand !== "all" && cat !== "all"){
240                 if(hideByCat || hideByBrand === true){
241                     item.className = "list-item hidden";
242                 }
243                 else {
244                     item.className = "list-item d-flex";
245                 }
246             }
247
248             hideByBrand = true;
249             hideByCat = true;
250
251         })
252     }
253 }

```

itemFilter() Code

searchFunc2(): This function works when search button is clicked.

Pseudo Code:

```

String searchtxt = Get search value
For item in gpulist
String name = Get name of item
If name includes searchtxt

```

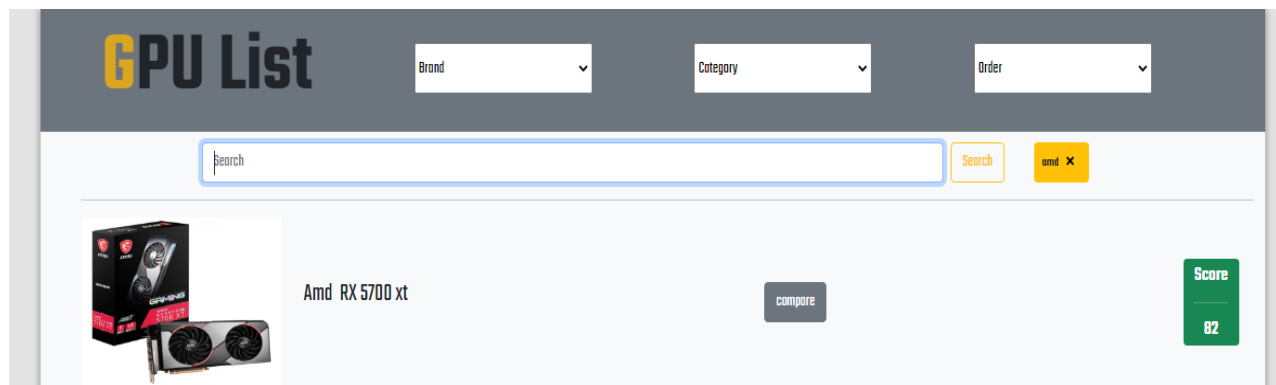
Display item
 Else
 Hide item
 If this function executed before
 Remove the old search filter
 Create a span (for displaying the which word searched)
 Create an icon
 Create a button (close button for closing the current search filter)
 Set icon attributes ("X" icon from font-awesome)
 Set button attributes (onclick = closeSearchFilter)
 Add icon to button
 Set span's textcontet to searchtxt
 Add button to span
 Add span to page
 searchtxt = ""
 If there is no results for searching word
 Show an alert

```

129 //search fonksiyonu
130 function searchFunc2(){
131   let searchtxt = search2.firstElementChild.value.toLowerCase();
132   searchtxt = removeSpaces(searchtxt);
133   itemList.forEach(function(item){
134     let name1 = item. (method) Element.getElementsByTagName("<p>(qualifiedName: "p"); HTMLCollectionOfHTMLParagraphElement> (+2 overloads)
135     let name2 = item.getElementsByTagName("<p>")[1].textContent.toLowerCase();
136     name1 = removeSpaces(name1);
137     name2 = removeSpaces(name2);
138     let name = name1.concat(name2);
139     if (name.includes(searchtxt)){
140       item.className = "list-item d-flex";//aramayla uyusuyorsa ürünü göster
141     }
142     else {
143       item.className = "list-item hidden";//aramayla uyusmuyorsa ürünü gizle
144     }
145   })
146
147
148   //aranan kelime filtresini ekranda gösterme -----
149   if(search2.lastElementChild.tagName === "SPAN"){
150     search2.removeChild(search2.lastElementChild);
151   } //<span class="badge bg-warning text-dark">Warning</span>
152
153   let badge = document.createElement("span");
154   let icon = document.createElement("i");
155   let closebtn = document.createElement("button"); //filteyi kapatma butonu
156
157   closebtn.className = "close-btn"; // .close-btn { border-style: none; margin: 0; padding: 0; background-color: #FFC107;}
158   closebtn.setAttribute("onclick", "closeSearchFilter()"); //filteyi kapatma butonu için fonksiyon
159
160   icon.className = "fas fa-times close-icon"; //filteyi kapatma butonu için icon
161   icon.setAttribute("style", "margin: 0.5rem;");
162   closebtn.appendChild(icon);
163   badge.className = "badge bg-warning text-dark";
164   badge.appendChild(document.createTextNode(searchtxt));
165   badge.appendChild(closebtn);
166
167
168
169   search2.appendChild(badge);
170   search2.firstElementChild.value = "";
171   noResult();
172
173

```

searchFunc2() Code



noResult(): This function show an alert if there is no result for searching

Pseudo Code:

If there is already a no result alert on page

 Remove alert

Count = 0

For item in qpulist

 If item is hidden

 Count ++

If count is equal to gpulist length

 Create list item (li)

 Create div

 Set classes and attributes of list item

 Set div's text content to "No Result"

 Add div to list item

 Add list item to qpulist

```

25 function noResult(){
26     if (list.lastElementChild.firstElementChild.textContent === "No Result"){
27         list.removeChild(list.lastElementChild);
28     }
29     let count = 0;
30     for (i = 0; i<itemlist.length ; i++){
31         if (itemlist[i].className.includes("hidden")){
32             count++;
33         }
34     }
35     console.log(count);
36     if (itemlist.length == count){
37         const alertlist = document.createElement("li");
38         const alert1 = document.createElement("div");
39         alertlist.setAttribute("style", "padding-bottom: 2rem;");
40         alert1.className = "alert alert-warning";//bootstrap 5 alert class
41         alert1.textContent = "No Result";
42         alert1.setAttribute("style", "font-size: 1.5rem;");
43         alert1.setAttribute("style", "width: 70%;");
44         alertlist.appendChild(alert1);
45         list.appendChild(alertlist);
46     }
47 }
48 }
49 }
50

```

noResult() Code

closeSearchFilter(): This function execute when search filter close button clicked. It closes current searched word.

Pseudo Code:

Remove search filter from page

For item in gpulist

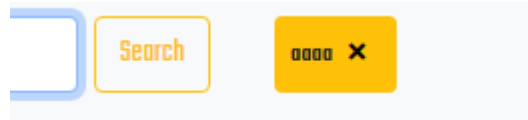
Display item

```

179 //filteyi kapatma butonu için fonksiyon
180 function closeSearchFilter(){
181     search2.removeChild(search2.lastElementChild);//filteyi ekrandan kaldırır
182
183     //tüm ürünleri listele
184     itemlist.forEach(function(item){
185         item.className = "list-item d-flex";
186     })
187 }
188

```

closeSearchFilter() Code



Search Filter

Comparison:

I already added compare check buttons in each gpulist item and a compare button to navigation bar. If the user wants to compare some products, he/she must first select the products he/she wants to compare by clicking the buttons on the product, and then click the button on the navbar. The user must select at least two gpu from the gpulist for comparison.

checkFunc(e): Thanks to this function, check operation can be done from the buttons on the product. When the button is clicked, the name of the product with the button and the address of the html page of the product are added to the local storage.

Pseudo Code:

If button on a gpu is clicked

 If that gpu is already checked (Checked buttons are green and has an icon on it)

 Delete the clicked button's text content

 Set the button class name (Unchecked buttons are grey and has no icon on it)

 Set the button text content

 Reduce the number of checked items by one

Else

 Create an icon

 Set icon's class using font-awesome

 Set the button's text to "Checked"

 Add icon to button

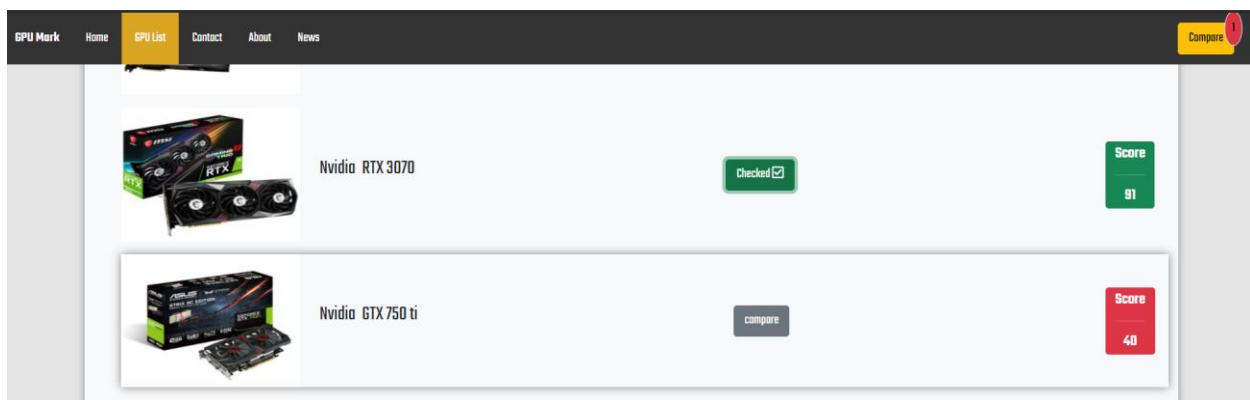
 Increase the number of checked items by one

```

103 function checkFunc(e){
104     if (e.target.tagName === "BUTTON"){
105
106         if(e.target.textContent.includes("Checked")){
107             e.target.removeChild(e.target.lastElementChild);
108             e.target.className = "btn btn-secondary align-self-center ms-auto compare-check";//tekrar gri renk yapma
109             e.target.textContent = "compare";//tik işaretini kaldırma
110             checkNumber = checkNumber - 1;
111             comparebtn.firstElementChild.textContent = checkNumber;//seçilen ürün sayısını güncelle
112
113         }
114     }
115     else { //min 2 ürün seçilebilir
116         //tik ikonu ekleme
117         let checkicon = document.createElement("i");//<i class="far fa-check-square"></i>
118         checkicon.className = "far fa-check-square";
119         e.target.className = "btn btn-success align-self-center ms-auto compare-check";
120         e.target.textContent = "Checked ";
121         e.target.appendChild(checkicon);
122
123         checkNumber = checkNumber + 1;
124         comparebtn.firstElementChild.textContent = checkNumber;//seçilen ürün sayısını güncelle
125     }
126
127 }
128 }

```

checkFunc(e) Code



Check Button

comparePage(): This function works when user click the compare button on navbar. If 2 gpu or more are selected the function makes the comparison. Otherwise this function display an alert.

Pseudo Code:

If the number of checked gpu is less than 2
Show an alert

Else

For item in gpulist

If the button on the item is checked

Get the name of gpu by lowering the letters

Remove spaces from name

Add name to the local storage

Go to compare html page

```
61
62 function comparePage(){
63     if(parseInt(comparebtn.firstElementChild.textContent) < 2 ){//seçilen ürün sayısı 2 değilse hiçbirşey yapma
64         showAlert("danger","You must select at least 2 GPU for comparison !");
65     }
66     else {
67         //ürün listesinden seçili ürünlerin ismini local storage üstüne yazar
68         itemList.forEach(function(item){
69             if (item.getElementsByTagName("button")[0].textContent.includes("checked")){
70                 let name = item.getElementsByTagName("p")[1].textContent.toLowerCase();
71                 name = removeSpaces(name);
72                 addUrlStorage(name);
73             }
74         })
75     }
76 }
77
78 window.location.href = "compare.html";
79 }
80 }
```

comparePage() Code

getUrlsFromStorage(): Function that gets the names of products from local storage.

Pseudo Code:

Create list named “urls”

If the list in the local storage is null

Make “urls” empty

Else

Get list from local storage to “urls”

Return “urls”

```

82 function getUrlsFromStorage(){//url leri local stroge dan alma işlemi
83     let urls;
84     if (localStorage.getItem("urls") === null){
85         urls = [];
86     }
87     else {
88         urls = JSON.parse(localStorage.getItem("urls"));
89     }
90     return urls;
91 }
92 }

```

getUrlsFromStorage() Code

addUrlStorage(url): Adds the name of gpu to local storage.

Pseudo Code:

Get “urls” from local storage in to a list

Push url to list

Set “urls” in the local storage with list

```

93 function addUrlStorage(url){//ürün isimlerini local storager a yazar
94     let urls = getUrlsFromStorage();
95     urls.push(url);
96     localStorage.setItem("urls",JSON.stringify(urls));
97 }
98 }
99 }

```

addUrlStorage(url) Code

There are 3 rows in the compare page. First row is for image, second one is for stat table and the last one is for recommendation score. Each one is getting from html pages of those items. I used jQuery for this.

Selecting rows:

```

143 let urls = getUrlsFromStorage();
144 //satırların seçilmesi
145 const rowimg = document.querySelector("#imgrow");
146 const rowtable = document.querySelector("#tablerow");
147 const rowscore = document.querySelector("#scorerow");
148 const rowname = document.querySelector("#namerow");
149

```

Then I get “urls” from local storage into a list. I created a loop for this list. I create columns for image, score and statistics and set their id's by using “template literal” method and added these columns to rows.

Example for template literal :

```
let tableid = `table${i}`;  
let imgid = `img${i}`;  
let scoreid = `score${i}`;
```

I created the address of the page by combining the name corresponding to each step with ".html". Then, to set the appropriate format for jquery, I added the id of the picture, score and statistics on these pages as strings to the url.

Example: urls[0] = rtx3070

url = urls[0] + “.html” = rtx3070.html (address of the page)

Selecting image from rtx3070.html (jQuery.load format) : “rtx3070.html #imgrow”

```
152     for (let i = 0; i < urls.length; i++){  
153         //karşılaştırma için seçilen her ürünün tablo, resim, isim ve skor sütunları  
154         let tablecol = document.createElement("div");  
155         tablecol.className = "compare-col";  
156         let imgcol = document.createElement("div");  
157         imgcol.className = "compare-col";  
158         let scorecol = document.createElement("div");  
159         scorecol.className = "compare-col";  
160         let namecol = document.createElement("div");  
161         namecol.className = "compare-col";  
162         let url = urls[i];  
163         let name = url;  
164         namecol.textContent = name;  
165  
166         //jquery load için url ve id lerin hazırlanması  
167         url = url.concat(".html");  
168         let table = url.concat(" #table");  
169         let imgUrl = url.concat(" #img");  
170         let scoreUrl = url.concat(" #score");  
171         let tableid = `table${i}`;  
172         let imgid = `img${i}`;  
173         let scoreid = `score${i}`;  
174         tablecol.id = tableid;  
175         imgcol.id = imgid;  
176         scorecol.id = scoreid;
```

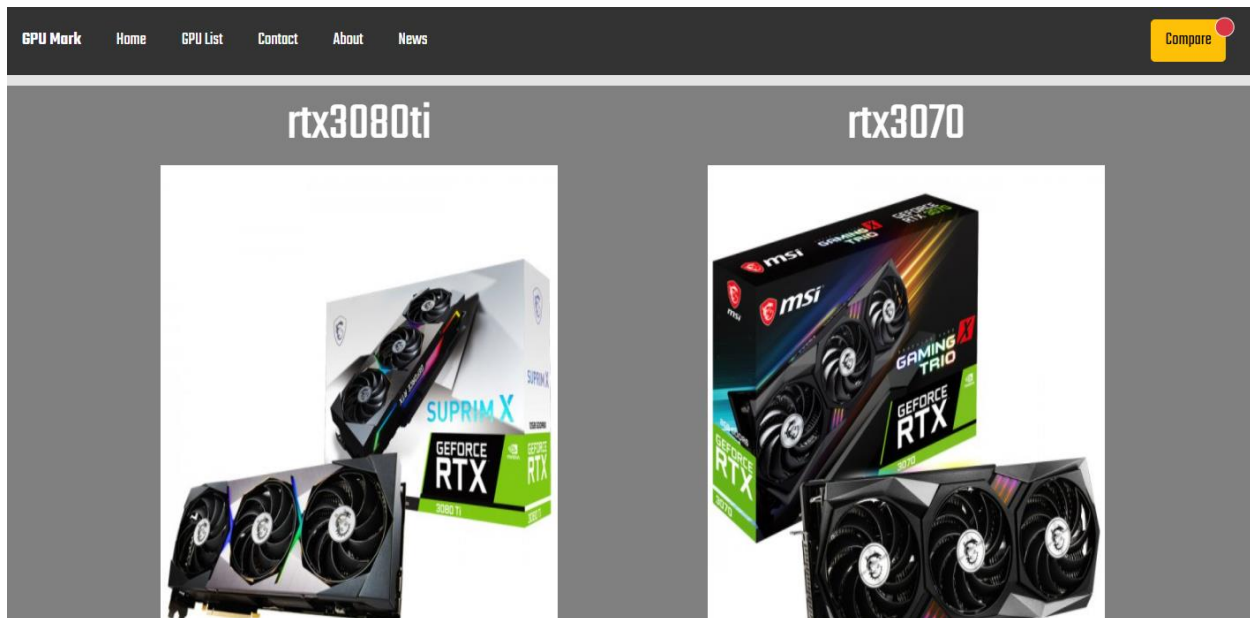
After preparing everything, I add the selected gpu to the compare.html page to compare using the jQuery load function.

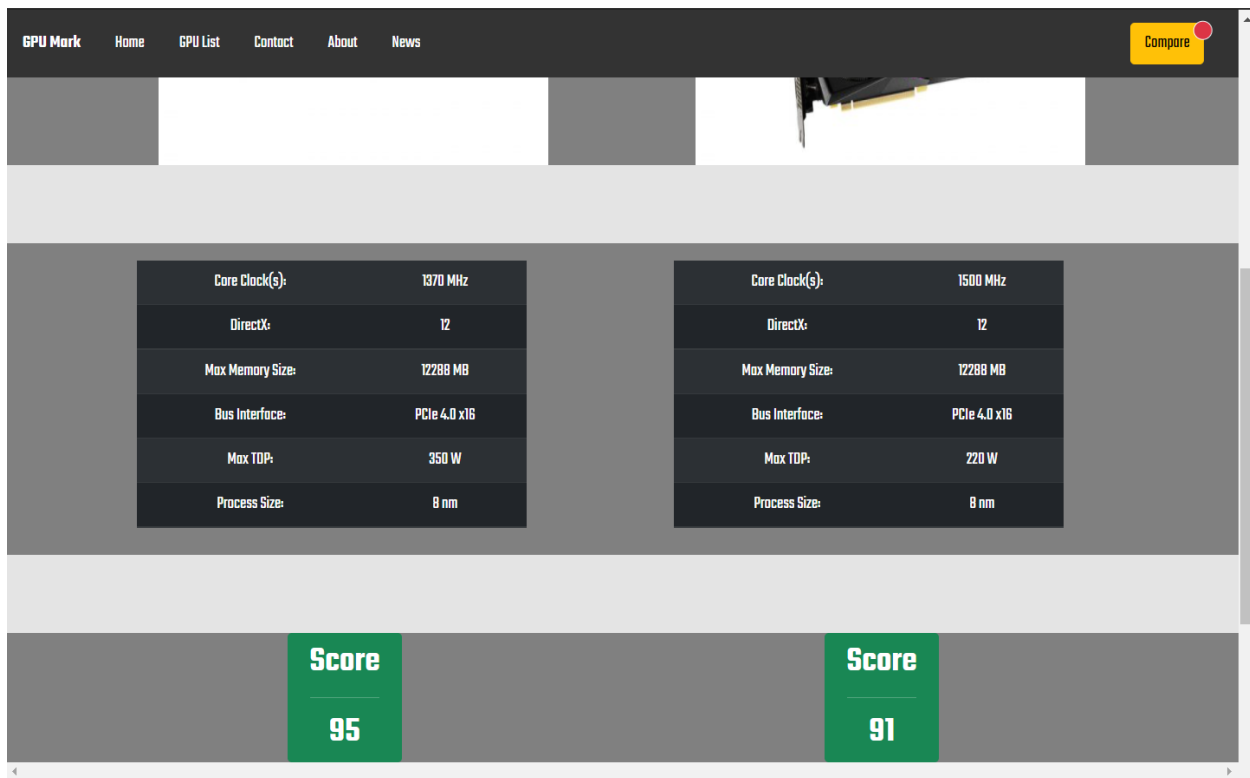
```
186 //jquery, $('#id1').load("url.html #id2")
187 $('#${tableid}`).load(table);
188 $('#${imgid}`).load(imgUrl);
189 $('#${scoreid}`).load(scoreUrl);
190
191
```

When these steps are completed, the loop returns to the beginning and the same operations are applied for the next gpu.

Local storage is cleared when all products are added to the page.

```
200 //local storage temizleme
201 localStorage.removeItem("urls");
202 }
```





4 Performance and Outcomes

4.1 Applying Knowledge and Skills Learned at Hacettepe

The self-learning and algorithm knowledge that Hacettepe gave me greatly contributed to my internship.

4.2 Solving Engineering Problems

The information I needed to add in the task I was updating on the website was sent to me as a word file. Unfortunately, in this word file, the use of "," instead of "." for some grant programs in the part of the grant programs' budgets created a short-term crisis. The error was noticed after 1 day and the necessary changes were made.

4.3 Teamwork

I have not worked on a team-based master project. But there was a division of labor among the employees in the jobs where we needed to make updates on the website. For example, for a competition organized by Sabancı, the information and projects on the website had to be updated. There were 14 pages in total and our team was 2 people. While I was updating the English of the pages, my teammate updated the Turkish part and then we linked these together.

4.4 Multi-Disciplinary Work

I was not a part of a multi-disciplinary work.

4.5 Professional and Ethical Issues

I did not observe such an issue during my internship.

4.6 Impact of Engineering Solutions

Sabancı Foundation is a company that works very actively on social issues. During my internship, I understood that engineering solutions can solve problems in social issues, increase solidarity in society and bring society to a better place.

4.7 Locating Sources and Self-Learning

My internship was focused on frontend. I had neither experience nor much knowledge in this before. I mostly had to use HTML for normal business given by the company. I mostly used “W3Schools.com” to improve my HTML knowledge. My own individual website project required a lot of JavaScript and CSS knowledge. I mostly used “W3Schools.com” and “stackoverflow.com” for the problems I encountered in this web project.

4.8 Using New Tools and Technologies

During my internship, I focused more on coding. But I had to use tools like Related RMC and CSM for some of my work. At the end of my internship, I came to a level where I could use these 2 tools well.

5 Conclusions

When I finished my internship, I came to a good level of knowledge in the field of front-end. I have reached the level of creating a website from scratch using HTML, CSS and JavaScript. I experienced how things work and what kind of tasks are done in an IT department. In addition, I realized how valuable the self-learning that Hacettepe gave me and I improved this aspect of me.

References

- [1] W3Schools. W3Schools: Tutorials. Retrieved from <https://www.w3schools.com/>.
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- [3] related DIGITAL. Retrieved from <https://www.relateddigital.com/>.