

CSE211 Web Programming, Fall Semester 24/25

Assignment 1

GRILLI RESTAURANT

Cs

221100758

2.2:

Part 1: Research

"Background on Web Evolution"

1. Web 2.0:

- Characteristics: User-generated content, social networking, and interactivity. Platforms like Facebook, Twitter, and YouTube emerged, emphasizing user engagement.
- Technologies: HTML5, CSS3, AJAX, and RESTful APIs enabled dynamic content loading and real-time interactions.

2. Web 3.0:

- Characteristics: Semantic web, personalization, and decentralization. Focuses on data interconnectivity and intelligent applications, allowing for better user experiences through AI and machine learning.
- Technologies: RDF (Resource Description Framework), OWL (Web Ontology Language), and various AI frameworks that enhance data processing and content understanding.

3. Web 4.0:

Characteristics: The "Symbiotic Web," emphasizing machine learning, autonomous agents, and seamless integration between digital and physical worlds. It aims to create more intuitive and human-like interactions.

- Technologies: Advanced AI algorithms, IoT (Internet of Things), blockchain for decentralized applications, and natural language processing for better human-computer interaction.

Part 2: website planning:

Aspect

Website Purpose

Target Audience

Content Requirements

Functional Requirements

Design Preferences

Technical Specifications

Budget Considerations

Timeline

Part 3: Website Design

" Design Concepts for "GRILLI RESTAURANT!"

1. Layout:

- Homepage: Hero image of the restaurant with a welcome message, navigation bar, featured dishes, and call-to-action buttons for reservations and menu access.
- Menu Page: Organized layout categorizing appetizers, mains, desserts, and drinks with appetizing images and descriptions.
- About Us Page: A section about the restaurant's history and philosophy with images of the team and the kitchen.

2. Color Scheme:

- Earthy tones (deep greens, browns) that evoke warmth and comfort, combined with accent colors (gold or cream) for elegance.

3. typography:

- Clear, readable fonts (e.g., sans-serif for body text) with stylish fonts for headings to create a modern yet welcoming feel.

4. Imagery:

- High-quality images of dishes, the restaurant environment, and happy customers to create an inviting atmosphere.

5. User Experience (UX):

- Intuitive navigation with a clear structure. Ensure quick access to key areas (menu, reservations, contact).
- Mobile-friendly design with touch-friendly buttons and optimized loading speeds for a seamless experience.

6. Accessibility:

- Implement ARIA (Accessible Rich Internet Applications) landmarks and ensure color contrast is sufficient for readability.
- Use alt text for images and keyboard navigation for users with disabilities.

7. Technical Implementation:

- Use HTML5 for structure, CSS3 for styling, and JavaScript for interactivity (e.g., reservation forms).
- Consider a CMS (Content Management System) like WordPress for easy updates, or custom code using frameworks like React for a more tailored approach.

This should give "GRILLI RESTAURANT" a modern, user-friendly, and accessible website that reflects the quality and atmosphere of the dining experience.

2.3.1

Part 1 research:

The Evolution of the Web: From Web 2.0 to Web 4.0

The evolution of the web has transformed how individuals and organizations interact, share information, and conduct business.

This journey from Web 2.0 to Web 4.0 reflects significant technological advancements and changing user expectations.

Defining Characteristics:

Web 2.0: marked a shift towards user-generated content and social interaction. It introduced features such as blogs, wikis, and social media platforms, enabling users to contribute, collaborate, and share. The rise of platforms like Facebook, Twitter, and YouTube facilitated the creation of vibrant online communities.

Web 3.0: often referred to as the Semantic Web, emphasizes data interconnectivity and machine understanding. This era leverages technologies like artificial intelligence and natural language processing to create a more personalized web experience. It aims to give meaning to data, allowing for smarter applications that can understand and interpret user intent.

Web 4.0: is characterized by the emergence of the Symbiotic Web, where intelligent systems and humans work together seamlessly. This stage is marked by the use of advanced AI, machine learning, and the Internet of Things (IoT), enabling autonomous interactions and decision-making capabilities.

Key Features of Each Web Era:

Web 2.0: The key features include interactivity, user-generated content, and the power of networks. It empowers individuals to connect, share experiences, and collaborate on a global scale. Social networking sites leverage these features, allowing users to build communities and share information rapidly. This has fundamentally changed how businesses market their products, shifting from traditional advertising to engaging directly with customers online.

Web 3.0: Key features of this phase include semantic understanding, personalization, and enhanced data connectivity. This web evolution empowers the meaning of data by linking information in a way that is understandable by machines. The use of metadata

allows for improved search capabilities and content relevance. enhances knowledge connections across platforms. Businesses

can utilize this data to tailor their services, predict customer behavior, and create targeted marketing strategies

Web 4.0: The defining features of Web 4.0 include advanced AI integration, real-time data processing, and enhanced user autonomy. This era empowers intelligent connections, where systems can learn and adapt to user needs. The implementation of blockchain technology also fosters security and transparency in transactions. Businesses can harness these capabilities to create highly personalized experiences, automate processes, and improve operational efficiency.

Importance of Collective Intelligence:

Collective intelligence, social networking, social media, and social bookmarking play crucial roles in today's digital landscape.

These technologies foster collaboration and knowledge sharing, allowing individuals to leverage the wisdom of the crowd

Businesses benefit from this by gaining insights into consumer preferences and trends, enabling them to make informed decisions and stay competitive

Empowering Business Plans:

The advancements from Web 2.0 to Web 4.0 empower current and future business plans by facilitating greater data-driven

decision-making. Companies can harness social media analytics to understand customer sentiment, utilize AI for predictive analytics, and implement IoT solutions for real-time monitoring of operations. This interconnectedness allows businesses to be more agile and responsive to market changes.

Future Technologies in Professional Use:

As a professional in the web development field, I intend to utilize the latest technologies to enhance user experiences and streamline processes. Implementing AI-driven chatbots for customer service, utilizing machine learning algorithms for personalized content delivery, and adopting blockchain for secure transactions are some of the strategies I plan to incorporate. By staying abreast of emerging technologies, I aim to create innovative solutions that meet evolving

user needs and contribute to the digital economy-particularly for businesses like "GRILLI RESTAURANT, where enhanced customer interaction and efficient operations are essential.

2.3.2

Part 2 website planning:

Website Development for "GRILLI RESTAURANT"

1. Define the Purpose of Your intended Website:

The purpose of the "GRILLI RESTAURANT" website is to provide an online platform that showcases the restaurant's menu,

ambiance, and services. It aims to facilitate reservations, share culinary offerings, and engage with customers through blog posts and social media integration.

2. What Would You Like the Website to Accomplish?

The website should accomplish several goals: attract new customers, provide detailed information about the restaurant and its offerings, enable online reservations, and foster a community through social media connections.

3. Who Is Your Intended Audience?

The intended audience includes food enthusiasts, families, couples looking for dining options, and local residents seeking a welcoming place to eat and socialize.

4. What Opportunities, Problems, or Issues Does Your Planned Website Address?

The website addresses the opportunity to enhance visibility and accessibility of the restaurant. It solves the problem of potential customers not being aware of the restaurant's offerings or hours and provides an easy way for them to make reservations.

5. What Kind of Content Could Be Incorporated on Your Website?

Content may include:

- A menu with descriptions and prices
- High-quality images of food and the dining environment
- An about page detailing the restaurant's history and philosophy
- Customer testimonials and reviews
- A blog for culinary tips and updates
- A contact page with a reservation form

6. How Will the Site Serve the Client?

The site will serve the client by providing a digital storefront that promotes the restaurant's offerings, allows for direct customer engagement, and simplifies the reservation process.

7. What's the Best Method for the User to Do What's Wanted?

Users will find it easiest to navigate the website through a clear and intuitive menu that allows them to access the homepage, menu, reservation system, and contact information with just a few clicks.

8. How Will Users Find the Function?

Users will find functions like the reservation system prominently featured on the homepage, with clear call-to-action buttons guiding them through the reservation process.

9. How Will the Results of the Function Be Received?

Upon submission of a reservation request, users will receive a confirmation message on-screen and via email, outlining the details of their reservation.

10. What Will the Receiver Do with the Received Entries?

The restaurant staff will review reservation requests daily and confirm bookings based on availability, ensuring that the system reflects real-time capacity.

11. How Will the Receiver Deal with Results?

The restaurant will maintain a digital log of reservations, allowing staff to manage seating and prepare for customer arrivals.

Effectively.

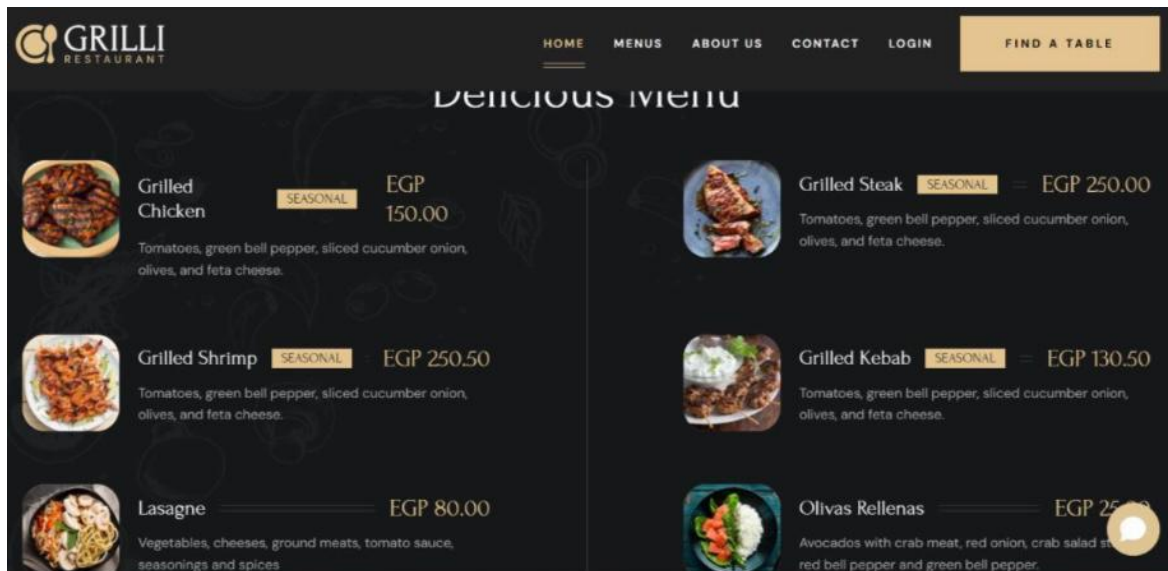
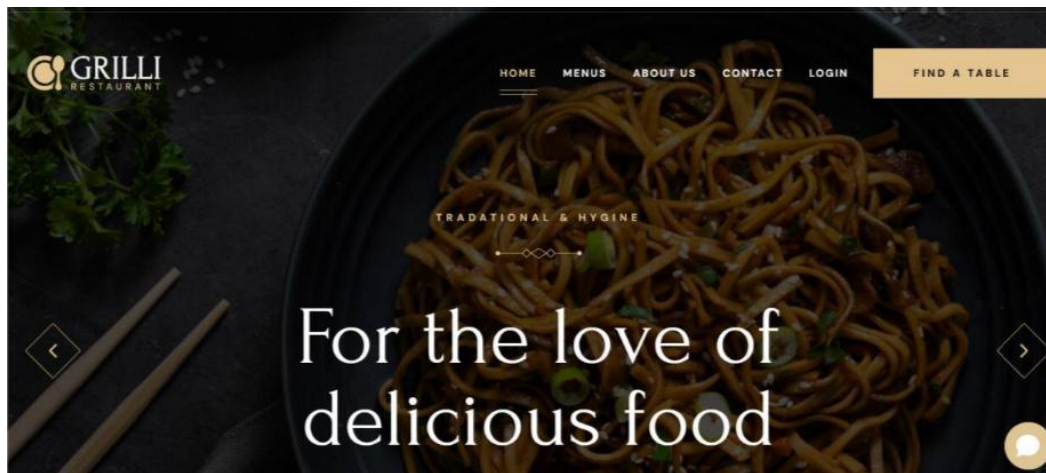
12. What Follow-Up Will Be Needed?


Follow-up communications may include sending reminder emails to customers about their reservations, gathering feedback after their dining experience, and encouraging social media sharing.

13. List at Least Two Related or Similar Sites Found on the Web. Explain Why You Chose Them:

- OpenTable: This site is widely used for restaurant reservations, showcasing a user-friendly interface and extensive restaurant listings. It's chosen for its effective reservation management system.
- Yelp: A platform for restaurant reviews and recommendations, chosen for its community-driven content and user engagement features that could inspire similar functionalities for "GRILLI RESTAURANT."

14.






[HOME](#)
[MENUS](#)
[ABOUT US](#)
[CONTACT](#)
[LOGIN](#)
[FIND A TABLE](#)


Every Flavor Tells a Story

Founded in 1990, Grilli has been the heart of Giza's culinary scene for over three decades. Inspired by a rich family heritage in cooking, our founder John Doe embarked on a journey to bring authentic flavors to the heart of the city.


Book Through Call
+20 1018102203

[READ MORE](#)







[HOME](#)
[MENUS](#)
[ABOUT US](#)
[CONTACT](#)
[LOGIN](#)
[FIND A TABLE](#)




Breakfast





Drinks



[HOME](#)
[MENUS](#)
[ABOUT US](#)
[CONTACT](#)
[LOGIN](#)
[FIND A TABLE](#)

Contact Us

Call Us +20 1018102203 or fill out the order form

Your Name

Phone Number

Message

[SEND MESSAGE](#)

Contact Us

Call Us
+20 1018102203

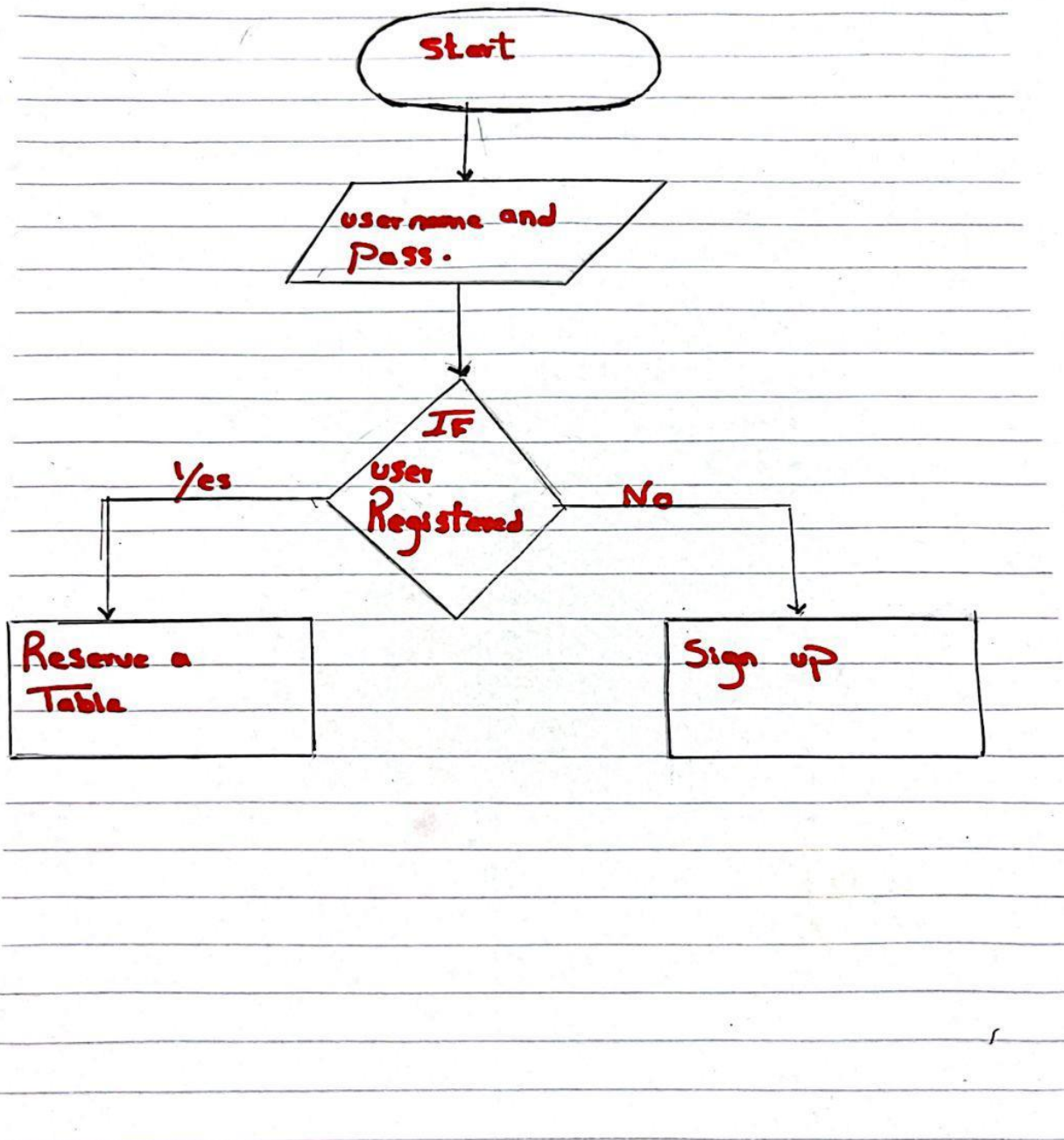
◇

Location
Arkan Plaza, 6th Of October,
Giza

Lunch Time
Monday to Sunday
11.00 am - 2.30pm

Dinner Time

Flow chart:



2.3.3: part 2 website design :

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>

<meta charset="UTF-8" />

<meta http-equiv="X-UA-Compatible" content="IE=edge" />

<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<title>Grilli - Amazing & Delicious Food</title>

<meta name="title" content="Grilli - Amazing & Delicious Food" />

<meta name="description" content="" />

</head>
```

```
<body id="top">

<div class="preload" data-preload>

  <div class="circle"></div>

  <p class="text">Grilli</p>

</div>
```

```
<div class="topbar">

  <div class="container">

    <address class="topbar-item">

      <div class="icon">

        <ion-icon name="location-outline" aria-hidden="true"></ion-icon>

      </div>
```

```
      <span class="span">

        Restaurant St, Delicious City, London 9578, UK

      </span>

    </address>
```

```
<div class="separator"></div>
```

```
<div class="topbar-item item-2">
```

```
  <div class="icon">
```

```
    <ion-icon name="time-outline" aria-hidden="true"></ion-icon>
```

```
  </div>
```

```
    <span class="span">Daily : 8.00 am to 10.00 pm</span>
```

```
</div>
```

```
<a href="tel:+11234567890" class="topbar-item link">
```

```
  <div class="icon">
```

```
    <ion-icon name="call-outline" aria-hidden="true"></ion-icon>
```

```
  </div>
```

```
    <span class="span">+1 123 456 7890</span>
```

```
</a>
```

```
<div class="separator"></div>
```

```
<a href="mailto:booking@restaurant.com" class="topbar-item link">
```

```
  <div class="icon">
```

```
    <ion-icon name="mail-outline" aria-hidden="true"></ion-icon>
```

```
  </div>
```

```
    <span class="span">booking@restaurant.com</span>
```

```
</a>
```

</div>

</div>

<header class="header" data-header></header>

<main>

<article>

<section

class="section testi text-center has-bg-image"

style="background-image: url('./assets/images/testimonial-bg.jpg')"

aria-label="testimonials"

>

<div class="container">

<div class="quote">"</div>

<p class="headline-2 testi-text">

I wanted to thank you for inviting me down for that amazing dinner
the other night. The food was extraordinary.

</p>

<div class="wrapper">

<div class="separator"></div>

<div class="separator"></div>

<div class="separator"></div>

</div>

<div class="profile">

```

```

```
  <p class="label-2 profile-name">Sam Jhonson</p>
</div>
</div>
</section>
```

```
<!--
- #RESERVATION
-->
```

```
<section class="reservation"></section>
```

```
<!--
- #FEATURES
-->
```

```
<section class="section features text-center" aria-label="features">
  <div class="container">
    <p class="section-subtitle label-2">Why Choose Us</p>
```

```
<h2 class="headline-1 section-title">Our Strength</h2>
```

```
<ul class="grid-list">
```

```
<li class="feature-item">
```

```
<div class="feature-card">
```

```
<div class="card-icon">
```

```

```

```
<h3 class="title-2 card-title">Hygienic Food</h3>
```

```
<p class="label-1 card-text">
```

```
  Lorem Ipsum is simply dummy printing and typesetting.
```

```
</p>
```

```
</div>
```

```
</li>
```

```
<li class="feature-item">
```

```
<div class="feature-card">
```

```
<div class="card-icon">
```

```

</div>
```

```
<h3 class="title-2 card-title">Fresh Environment</h3>
```

```
<p class="label-1 card-text">
  Lorem Ipsum is simply dummy printing and typesetting.
</p>
</div>
</li>
```

```
<li class="feature-item">
  <div class="feature-card">
    <div class="card-icon">
      
    </div>
  </div>
</li>
```


</div>

<h3 class="title-2 card-title">Skilled Chefs</h3>

<p class="label-1 card-text">

 Lorem Ipsum is simply dummy printing and typesetting.

</p>

</div>

<li class="feature-item">

 <div class="feature-card">

 <div class="card-icon">

 </div>

<h3 class="title-2 card-title">Event & Party</h3>

<p class="label-1 card-text">

 Lorem Ipsum is simply dummy printing and typesetting.

</p>

```
</div>
```

```
</li>
```

```
</ul>
```

```

```

```
</section>
```

```
<!--
```

```
- #EVENT
```

```
-->
```

```
<section class="section event bg-black-10" aria-label="event"></section>
</article>
</main>
```

```
<!--
- #FOOTER
-->
```

```
<footer
class="footer section has-bg-image text-center"
style="background-image: url('./assets/images/footer-bg.jpg')"
>
```

```
<div class="container">
  <div class="footer-top grid-list">
    <div class="footer-brand has-before has-after">
      <a href="#" class="logo">
        
      </a>
```

```
<address class="body-4">
```

Restaurant St, Delicious City, London 9578, UK

</address>

booking@grilli.com

>

Booking Request : +88-123-123456

>

<p class="body-4">Open : 09:00 am - 01:00 pm</p>

<div class="wrapper">

<div class="separator"></div>

<div class="separator"></div>

<div class="separator"></div>

</div>

<p class="title-1">Get News & Offers</p>

<p class="label-1">

Subscribe us & Get 25% Off.

</p>

<form action="" class="input-wrapper">

<div class="icon-wrapper">

```
<ion-icon name="mail-outline" aria-hidden="true"></ion-icon>
```

```
<input  
  type="email"  
  name="email_address"  
  placeholder="Your email"  
  autocomplete="off"  
  class="input-field"  
>  
</div>
```

```
<button type="submit" class="btn btn-secondary">  
  <span class="text text-1">Subscribe</span>
```

```
  <span class="text text-2" aria-hidden="true">Subscribe</span>
```

```
</button>
```

```
</form>
```

```
</div>
```

```
<ul class="footer-list">
```

```
<li>
```

```
  <a href="#" class="label-2 footer-link hover-underline">Home</a>
```

```
</li>
```

```
<li>
```

```
  <a href="#" class="label-2 footer-link hover-underline">Menus</a>
```

```
</li>
```

```
<li>  
  <a href="#" class="label-2 footer-link hover-underline"  
    >About Us</a  
  >  
</li>
```

```
<li>  
  <a href="#" class="label-2 footer-link hover-underline"  
    >Our Chefs</a  
  >  
</li>
```

```
<li>  
  <a href="#" class="label-2 footer-link hover-underline"  
    >Contact</a  
  >  
</li>  
</ul>
```

```
<ul class="footer-list">  
  <li>  
    <a href="#" class="label-2 footer-link hover-underline"  
      >Facebook</a  
    >  
  </li>
```

```
<li>
  <a href="#" class="label-2 footer-link hover-underline"
    >Instagram</a>
  >
</li>
```

```
<li>
  <a href="#" class="label-2 footer-link hover-underline"
    >Twitter</a>
  >
</li>
```

```
<li>
  <a href="#" class="label-2 footer-link hover-underline"
    >Youtube</a>
  >
</li>
```

```
<li>
  <a href="#" class="label-2 footer-link hover-underline"
    >Google Map</a>
  >
</li>
</ul>
</div>
```

```
<div class="footer-bottom">
```

```
<p class="copyright">
  &copy; 2022 Grilli. All Rights Reserved | Crafted by
  <a
    href="https://github.com/codewithsadee"
    target="_blank"
    class="link"
    >codewithsadee</a
  >
</p>
</div>
</div>
</footer>
</body>
</html>
```