

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**INTERNSHIP REPORT - I**

**on**

**“Web Development Internship”**

*Submitted in partial fulfilment of the requirement for the award of a Degree of*

**Bachelor of Engineering**

**in**

**Computer Science & Engineering**

***Submitted by:***

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**USN : 1NT21CS151**

*Internship carried out at*

Code Clause

**INTERNAL GUIDE:**

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Department of CSE, NMIT

**HEAD OF DEPARTMENT**

Dr. S Meenakshi Sundram

Professor / Head - CSE

**2023 - 2024**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



### CERTIFICATE

This is to certify that the Internship-II entitled “**Web Development Internship**” is a bonafide work carried out by **ROHIT YADAV (1NT21CS151)**, in partial fulfilment for the award of Degree of Bachelor of Engineering in Computer Science and Engineering at Nitte Meenakshi Institute of Technology, during the year **2023-24**. The Internship Report has been approved as it satisfies the academic requirements with respect to the Internship work prescribed for a Bachelor of Engineering Degree.

*Signature of Internal Guide*

Mrs. Sharmila Shanti Sequeria, Assistant Professor  
Ms. Sowmya M R, Assistant Professor  
Department of CSE, NMIT .

*Signature of HOD*

Dr. S Meenakshi Sundram  
Professor and Head - CSE

### Examiners

**Internal Examiner**

**External Examiner**

Name: .....

.....

Signature: .....

.....

## **ACKNOWLEDGEMENT**

I sincerely owe my gratitude to all the people who helped and guided me to carry out the internship. I am thankful to Dr. H. C. Nagaraj, Principal, NMIT Bangalore, for all the support he has rendered. I thank Dr. S Meenakshi Sundaram, Professor and Head, Department of Computer Science and Engineering for his constant support and encouragement throughout the tenure of this seminar work.

I would like to thank Code Clause, for giving me an opportunity to complete my internship in their company. I would like to sincerely thank my guide , Mrs. Sharmila Shanti Sequeria, Associate Professor, Department of Computer Science and Engineering, for providing relevant information, valuable guidance and encouragement to complete this internship work.

I am extremely pleased to thank my parents, family members, and friends for their continuous support, inspiration, and encouragement, for their helping hand and also last but not the least, I thank all the members who supported directly or indirectly in the internship work process.

**ROHIT YADAV**

**(1NT21CS170)**

## Company Certificate



Code Clause

### To Whom So IT May Concern

Date - 05 / 10 / 2023

This is to certify that **ROHIT YADAV**, Cse **NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY** is working as an intern with CodeClause from the period **1-Sep-2023 To 1-Oct-2023**.

During this period he handled **WEB DEVELOPMENT INTERN** position.

During the course of the Internship, **ROHIT YADAV** has shown a great amount of responsibility, sincerity, and a genuine willingness to learn and zeal to take on new assignments and challenges. In particular, his coordination skills and communication skills are par excellence and his attention to details is impressive

*We wish all the very best for your future.*

with regards,  
CodeClause



**MSME**  
MICRO, SMALL & MEDIUM ENTERPRISES  
उद्यम, लघु व मध्यम उद्यम

Certificate No - CC-CL59453

## **ABSTRACT**

This internship report presents the work carried out during the Web Development Internship at Code Clause from 1st September 2023 to 1st October 2023. The report covers the tasks assigned, skills developed, and the contributions made to the projects. Key highlights include the development of web applications, enhancement of communication skills, and learning new web technologies. The internship provided valuable industry experience and practical knowledge in web development.

The primary project was building a basic chat application using Web Sockets and a basic text editor. The report elaborates on the project goals, implementation details, challenges faced, and the outcomes achieved. Additionally, the learning experience and its impact on future career prospects are discussed.

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# **1. COMPANY PROFILE**

## **1.2 About Company**

Code Clause is a leading software development company specializing in innovative web solutions. The company focuses on delivering high-quality software products and services to clients across various industries. The team at Code Clause is known for its expertise in cutting-edge technologies and its commitment to customer satisfaction.

## **1.3 History of Company**

Founded in [2016], CodeClause has grown significantly to become a trusted name in the software development industry. Over the years, the company has undertaken numerous projects that have helped clients achieve their business goals. The company's evolution is marked by its ability to adapt to the latest technological advancements and market demands.

## **1.4 Founders of Company**

Code Clause was founded by Mr. Nilesh Kamble, whose vision was to create a company that leverages technology to solve real-world problems. The founder's extensive experience in the tech industry has been instrumental in guiding the company towards success.

## **1.5 Activities organized by Company**

The company regularly organizes workshops, hackathons, and training sessions to keep the team updated with the latest trends in technology. These activities foster a culture of continuous learning and innovation within the organization.

## **1.6 Services offered by Company**

Code Clause offers a range of services including web development, mobile app development, software consulting, and IT support. Their solutions are tailored to meet the unique needs of each client, ensuring that every project is a success.

## **2. INTRODUCTION**

### **2.1 Objectives**

The primary objective of the internship was to gain practical experience in web development, understand the workflow of a software development company, and enhance technical and soft skills. Specific goals included mastering web technologies, improving problem-solving abilities, and developing project management skills.

### **2.2 Problem Statement**

The challenge was to develop and maintain web applications that meet client requirements while ensuring high performance, security, and usability. The projects aimed to provide practical solutions to real-world problems, enhancing user experience and functionality.

### **2.3 Proposed System**

The proposed system involved using modern web technologies such as HTML, CSS, JavaScript, and frameworks like React.js to create dynamic and responsive web applications. Emphasis was placed on building scalable and maintainable code, integrating backend services, and ensuring cross-browser compatibility.



## Directory and File Explanations

```
Bg-remover/  
|  
├── index.html  
├── style.css  
├── script.js  
└── icons  
````
```

1. **\*\* Bg-remover /\*\***: Root directory of your project.
2. **\*\*icons/\*\***: This directory contains all the icons, images and the video used in the project.
  - **\*\*index.html\*\***: The main HTML file for bg-remover application.
  - **\*\*style.css\*\***: The CSS file for styling your bg-remover application.
  - **\*\*client.js\*\***: The JavaScript file that contains the client-side logic for bg-remover application.

**Here is the code implementation of the said problem:**

## **Index.html file**

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Remove Image Background</title>
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.4.0/css/all.min.css"
    integrity="sha512-
iecdLmask17CVkqkXNQ/ZH/XLlvWZOJyj7Yy7tcenmpD1ypASozpmT/E0iPtmFIB46ZmdtAc9eNBvH0H/ZpiBw="
    crossorigin="anonymous" referrerpolicy="no-referrer" />
  <link rel="icon" type="image/*" href="icons/icon.png">

  <link rel="stylesheet" href="style.css">
</head>

<body>
  <div class="main">

    <div class="content">
      <div class="head">
        <i class="fa-solid fa-camera-retro"></i>
        <h1 class="head-text">Remove Image Background 100% Free automatically
in 5 seconds with one click</h1>
      </div>
      <p>Erase image backgrounds for free and effortlessly </p>
      <form id="imageForm">
        <input type="file" id="imageInput" accept="image/*" />
        <button type="submit" id="btnRmbg">Remove Background</button>
      </form>
    </div>

    <video autoplay loop >SAMPLE VIDEO<source src="/bg.mp4" type="video/mp4">
</video>

    <div id="imageContainer">
      <div class="imgBox">
        <p><h2>Uploaded Image</h2></p>
        
        <button id="preview" class="bottombtn">Preview</button>
      </div>
      <div class="imgBox">
        <p><h2>Result Image</h2></p>
        
        <button id="downLoad" class="bottombtn">Download</button>

</div>

        </div>
    </div>
</div>
</body>
    <script src="script.js"></script>
</body>
</html>

```

## Style.css file

```

* {
    padding: 0;
    margin: 0;
    box-sizing: border-box;
    font-family: 'Trebuchet MS', 'Lucida Sans Unicode', 'Lucida Grande', 'Lucida Sans',
    Arial, sans-serif;
}

body {
    color: #0a0a0a;
    background: url(/icons/bgrm3.jpg);
    width: 100%;
    height: 100%;
    background-size: cover;
    background-repeat: no-repeat;
}

.row{
    margin:100px;
    display:flex;
    justify-content:space-evenly;
}

#icon2{
    margin: 40px 12px 12px 12px;
}

img {
    width: 150px;
    height: 1/1;
    background: url('icons/icon3.jpg');
}

video{
    margin: 20px 20px 20px 20px;
    height: 500px;
    width: 600px;
}

```

```

}

.main {
  height: 100%;
  width: 100%;
  display: flex;
  flex-direction: column;
  align-items: center;
  justify-content: space-evenly;
}

.content {
  /* text-shadow: rgb(169, 241, 245) 0 0 3px; */
  width: 45rem;
  display: flex;
  flex-direction: column;
  height: 20rem;
  align-items: center;
  justify-content: center;
  gap: 30px;
  padding: 16px;
  border-radius: 10px;
  font-size: x-large;

  border: 1px solid rgba(255,255,255,0.1);
}

i {
  font-size: 2rem;
}

.head {
  display: flex;
  gap: 1rem;
}

#imageContainer {
  min-width: 600px;
  min-height: 400px;
  /* background-color: rgba(57, 57, 12, 0.319); */
  display: flex;
  justify-content: space-between;
  align-items: center;

  display: flex;
  justify-content: space-around;
  border-radius: 10px;
}

#uploadedImage,
#resultImage {
  max-width: 150px;
  max-height: 150px;
  border: 2px solid #9dafad;

```

```

    box-shadow: 5px 5px#9dafad;
    object-fit: contain;

border-radius: 5px;
}

button {
    cursor: pointer;

}

/* remove background button */
#btnRmbg {
    color: rgb(255, 255, 255);
    padding: 10px 20px;
    background-color: rgb(4, 31, 34);
    border: 4px solid rgb(23, 132, 146);
    box-shadow: 5px 5px#9dafad;
    border: 4px solid rgb(23, 132, 146);
    border-radius: 40px;
}

.imgBox {
    margin: 5px;
    font-family:cursive;
    color: rgb(11, 21, 33);
    text-shadow: #06426f 0px 0px 12px;
    text-align: center;
    display: flex;
    flex-direction: column;
    gap: 1em;
}

.bottombtn {
    background-image: linear-gradient(to right, rgb(10, 207, 233),rgb(63, 63, 56));
    width: auto;
    height: 30px;
    color: aliceblue;
    text-decoration: none;
    border:none;
    box-shadow: 5px 5px#117d70;
    border-radius: 40px;
}

```

## Script.js file

```
document.addEventListener("DOMContentLoaded", function() {
  const uploadedImg = document.getElementById("imageInput");
  const showUpload = document.getElementById("uploadedImage");
  const resultImage = document.getElementById("resultImage");
  const previewBtn = document.getElementById("preview");
  const removeBg = document.getElementById("btnRmbg");
  const downloadButton = document.getElementById('downLoad');

  uploadedImg.onChange = function() {
    showUpload.src = URL.createObjectURL(uploadedImg.files[0]);
  };

  previewBtn.addEventListener('click', function() {
    window.open(showUpload.src);
  });

  removeBg.addEventListener('click', function(event) {
    event.preventDefault();

    var apiEndpoint = 'https://api.remove.bg/v1.0/removebg';
    var apiKey = 'pGgpGuhT8mxBo8bg4Xj23HMc';
    var formData = new FormData();
    formData.append('image_file', uploadedImg.files[0]);
    formData.append('size', 'auto');

    fetch(apiEndpoint, {
      method: 'POST',
      headers: {
        'X-API-Key': apiKey
      },
      body: formData
    })
    .then(function(response) {
      // Check if the response was successful
      if (response.ok) {
        console.log(response);
        // Convert the response to blob
        return response.blob();
      } else {
        throw new Error('API request failed.');
      }
    })
    .then(function(imageBlob) {
      // Create a temporary URL for the image blob
      var imageUrl = URL.createObjectURL(imageBlob);

      // Set the source of the result image
      resultImage.src = imageUrl;

      // Create a temporary anchor element for download
      var downloadLink = document.createElement('a');
      downloadLink.href = imageUrl;
      downloadLink.setAttribute('download', 'background_removed_image.png');
      downloadLink.style.display = 'none';

      // Append the anchor element to the document body
      document.body.appendChild(downloadLink);
    });
  });
});
```

```
// Simulate a click event to trigger the download
downloadButton.onclick= ()=>{
  downloadLink.click();
}

// Clean up by removing the temporary anchor element
document.body.removeChild(downloadLink);
})
.catch(function(error) {
  console.error('Error:', error);
});
});
});
```

## Output

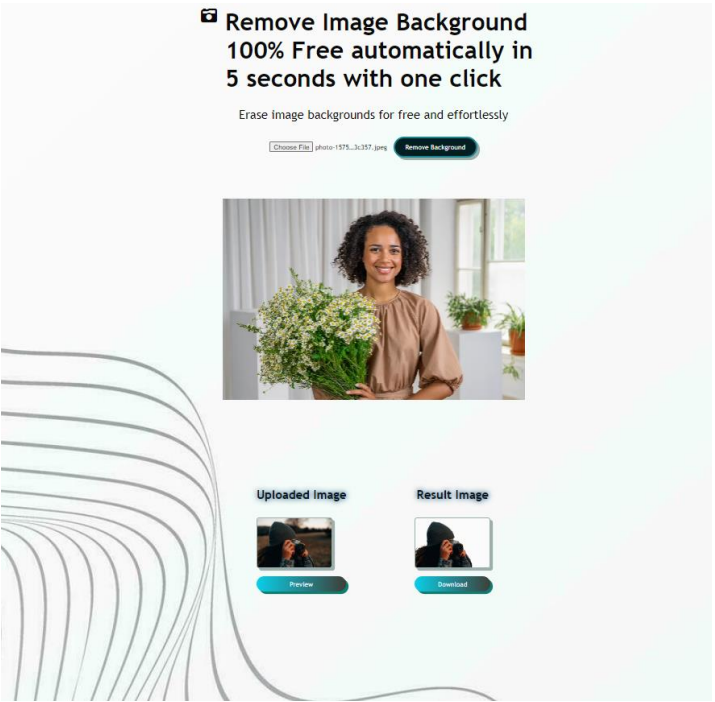
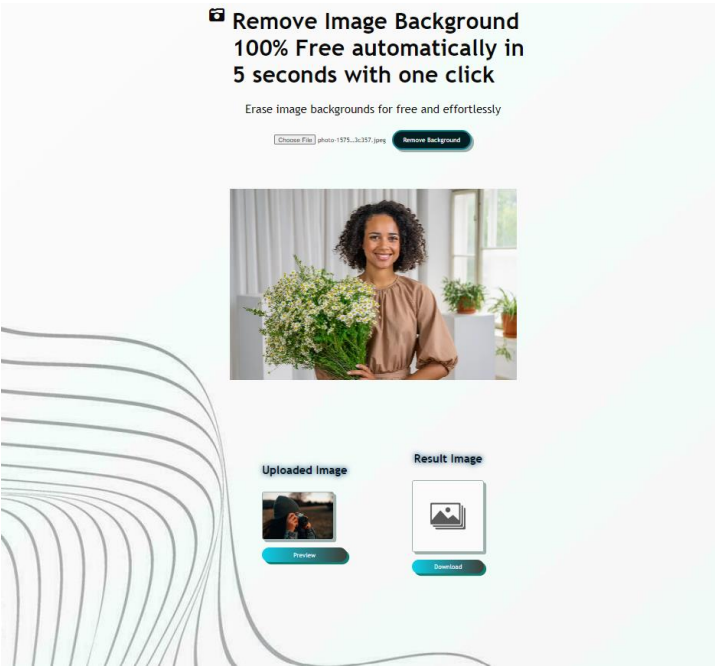


Fig :Input image



Fig: Output Image





### 3. AREAS OF LEARNING

During the internship, the following areas were explored:

- **Web Development:** Hands-on experience with web technologies, frameworks, and tools. Learned how to develop user-friendly interfaces, manage state in applications, and integrate APIs.
- **Project Management:** Understanding project life cycles, Agile methodologies, and task management. Participated in sprint planning, daily stand-ups, and retrospective meetings.
- **Communication Skills:** Enhancing verbal and written communication through client interactions and team collaborations. Delivered presentations, wrote technical documentation, and provided feedback during code reviews.
- **Problem-Solving:** Developing solutions for complex problems encountered during project development. Applied debugging techniques, optimized performance, and ensured security best practices.

## 4. ABOUT THE PROJECT

**Allocated Project:** Image Background remover

**Project Name:** Background Remover App

**Objective:** To develop a web application that allows users to remove the background from images using the remove.bg API.

**Technologies Used:** HTML, CSS, JavaScript, remove.bg API.

**Implementation:** Designed the user interface using HTML and CSS to ensure a clean and intuitive experience. Implemented core functionalities such as image upload, background removal, and image download using JavaScript and the remove.bg API. Ensured smooth interaction and responsiveness.

**Challenges:** Integrating the remove.bg API for seamless background removal, handling image file uploads and downloads efficiently, and ensuring a smooth user experience with real-time feedback.

**Outcome:** Created a functional background remover app that allows users to easily upload images, remove backgrounds with the help of the remove.bg API, and download the edited images. The application is efficient and user-friendly, providing a seamless experience for users looking to edit their images.

## 5. RESULT AND DISCUSSION

The internship resulted in the successful completion of both projects, which were delivered to the client on time. The projects met all the requirements and received positive feedback. Key achievements include:

- **Technical Skills:** Improved coding skills and knowledge of web development frameworks. Gained proficiency in using React.js for front-end development and Node.js for server-side scripting.
- **Teamwork:** Enhanced ability to work in a team and communicate effectively. Collaborated with team members, participated in code reviews, and contributed to project discussions.
- **Industry Standards:** Gained insights into industry standards and best practices. Learned about version control using Git, followed coding standards, and adhered to security guidelines.

### CONCLUSION:

The internship at Code Clause was a valuable learning experience that provided practical exposure to web development. It helped in building technical skills, understanding the workflow of a professional environment, and developing a professional network. The knowledge and experience gained will be instrumental in future career endeavors. The projects undertaken have not only enhanced my technical abilities but also instilled a sense of confidence in handling real-world challenges

### REFERENCES:

- **American Concrete Institute (ACI) Committee 363. (2010). State-of-the-Art Report on High-Strength Concrete (ACI 363R-10):** This report covers factors influencing concrete strength, including mix design and testing methodologies, providing a foundation for understanding concrete technology.
- **ASTM International. (2018). ASTM C39/C39M-18: Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens:** This standard outlines procedures for determining concrete compressive strength, essential for validating experimental results.