

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY



**BELAGAVI – 590018, Karnataka**

## **INTERNSHIP REPORT**

**ON**

### **Voice-Controlled SmartAssistant**

*Submitted in partial fulfilment for the award of degree(21INT68)*

#### **BACHELOR OF ENGINEERING IN COMPUTER SCIENCE**

*Submitted by:*

**NAME : SHAMBHAVI M S**

**USN:4BB21CS039**



**Varcons Technologies Pvt Ltd**

Conducted at

**VARCONS TECHNOLOGIES**



**BAHUBALI COLLEGE OF ENGINEERING**

**Department of COMPUTER SCIENCE**

**Accredited by AICTE, New Delhi**

**SHRAVANABELAGOLA-573135**

# BAHUBALI COLLEGE OF ENGINEERING

Department of Computer Science

Accredited by AICTE, New Delhi

SHRAVANABELAGOLA-573135



## CERTIFICATE

This is to certify that the Internship titled “**Voice-Controlled Smart Assistance**” carried out by **Ms. Shambhavi M S**, a bonafide student of BAHUBALI Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **Computer Science and Engineering** under Visvesvaraya Technological University, Belagavi, during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (21INT68)

Signature of Guide

Signature of HOD

Signature of Principal

External Viva:

Name of the Examiner

Signature with Date

1) \_\_\_\_\_  
\_\_\_\_\_

2) \_\_\_\_\_  
\_\_\_\_\_

## **D E C L A R A T I O N**

I, **Shambhavi M S**, second year student of Branch, Bahubali College of Engineering, declare that the Internship has been successfully completed, in **VARCONS TECHNOLOGY**. This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Computer Science during the academic year 2023-2024.

Date : \_\_\_\_\_ :

Place : Shravanabelgola

USN : 4BB21CS039

NAME : Shambhavi M S

## OFFER LETTER PROVIDED BY THE COMPANY



Date: 26<sup>th</sup> October, 2023

Name: **Shambhavi M S**

USN: **4BB21CS039**

Placement ID: **2310FSWDBONE**

**Dear Student,**

We would like to congratulate you on being selected for the **Full Stack Web Development** Internship position with **Varcons Technologies**, effective Start Date **26<sup>th</sup> October, 2023**, All of us are excited about this opportunity provided to you!

This internship is viewed as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts of **Full Stack Web Development** through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with you!.

Sincerely,

Spoorthi H C

**Director**

Varcons Technologies

213, 2<sup>st</sup> Floor, 18 M G Road, Ulsoor,

Bangalore-560001

# **A C K N O W L E D G E M E N T**

This Internship is a result of accumulated guidance, direction and support of several important persons. We take this opportunity to express our gratitude to all who have helped us to complete the Internship.

We express our sincere thanks to our Principal Dr.Sunilkumar D, for providing usadequate facilities to undertake this Internship.

We would like to thank our Head of Dept – Kavitha C R, for providing us an opportunity to carry out Internship and for his valuable guidance and support.

We would like to thank our Software Services for guiding us during the period of internship.

We express our deep and profound gratitude to our guide, Guide name, Assistant/Associate Prof, for her keen interest and encouragement at every step in completing the Internship.

We would like to thank all the faculty members of our department for the support extended during the course of Internship.

We would like to thank the non-teaching members of our dept, for helping us during the Internship.

Last but not the least, we would like to thank our parents and friends without whose constant help, the completion of Internship would have not been possible.

**NAME: SHAMBHAVI M S**

**USN: 4BB21CS039**

## **ABSTRACT**

As human beings' speech is amongst the most natural way to express ourselves. We depend so much on it that we recognize its importance when resorting to other communication forms like emails and text messages where we often use emojis to express the emotions associated with the messages. As emotions play a vital role in communication, the detection and analysis of the same is of vital importance in today's digital world of remote communication. Emotion detection is a challenging task, because emotions are subjective. There is no common consensus on how to measure or categorize them.

We define a SER system as a collection of methodologies that process and classify speech signals to detect emotions embedded in them. Such a system can find use in a wide variety of application areas like interactive voice based-assistant or caller-agent conversation analysis. In this study we attempt to detect underlying emotions in recorded speech by analyzing the acoustic features of the audio data of recordings.

In the field of speech emotion recognition many techniques have been utilized to extract emotions from signals. including many well-established speech analysis and classification techniques. In the traditional way of speech emotion recognition features are extracted from the speech signals and then the features are selected which is collectively know as selection module and then the emotions are recognized this is a very lengthy and time taking process so this paper gives an overview of the deep learning technique which is based on a simple algorithm based on feature extraction and model creation which recognizes the emotion.

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# **CHAPTER 1**

## **COMPANY PROFILE**



# **1. COMPANY PROFILE**

## **A Brief History of Company**

Varcons Technology, was incorporated with a goal "To provide high quality and optimal Technological Solutions to business requirements of our clients". Every business is a different and has a unique business model and so are the technological requirements. They understand this and hence the solutions provided to these requirements are different as well. They focus on clients requirements and provide them with tailor made technological solutions. They also understand that Reach of their Product to its targeted market or the automation of the existing process into e-client and simple process are the key features that our clients desire from Technological Solution they are looking for and these are the features that we focus on while designing the solutions for their clients.

Sarvamoola Software Services. is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Sarvamoola Software Services. specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements.

Varcons technology, strive to be the front runner in creativity and innovation in software development through their well-researched expertise and establish it as an out of the box software development company in Bangalore, India. As a software development company, they translate this software development expertise into value for their customers through their professional solutions.

They understand that the best desired output can be achieved only by understanding the clients demand better. Company work with their clients and help them to define their exact solution requirement. Sometimes even they wonder that they have completely redefined their solution or new application requirement during the brainstorming session, and here they position themselves as an IT solutions consulting group comprising of high caliber consultants.

They believe that Technology when used properly can help any business to scale and achieve new heights of success. It helps Improve its efficiency, profitability, reliability; to put it in one sentence " Technology helps you to Delight your Customers" and that is what we want to achieve.

## **CHAPTER 2**

### **ABOUT THE COMPANY**

## **2. ABOUT THE COMPANY**

Varcons is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Company specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements. The organization where they have a right mix of professionals as a stakeholders to help us serve our clients with best of our capability and with at par industry standards. They have young, enthusiastic, passionate and creative Professionals to develop technological innovations in the field of Mobile technologies, Web applications as well as Business and Enterprise solution. Motto of our organization is to “Collaborate with our clients to provide them with best Technological solution hence creating Good Present and Better Future for our client which will bring a cascading a positive effect in their business shape as well”. Providing a Complete suite of technical solutions is not just our tag line, it is Our Vision for Our Clients and for Us, We strive hard to achieve it.

### **Products of Company.**

#### **Android Apps**

It is the process by which new applications are created for devices running the Android operating system. Applications are usually developed in Java (and/or Kotlin; or other such option) programming language using the Android software development kit (SDK), but other development environments are also available, some such as Kotlin support the exact same Android APIs (and bytecode), while others such as Go have restricted API access.

The Android software development kit includes a comprehensive set of development tools. These include a debugger, libraries, a handset emulator based on QEMU, documentation, sample code, and tutorials. Currently supported development platforms include computers running Linux (any modern desktop Linux distribution), Mac OS X 10.5.8 or later, and Windows 7 or later. As of March 2015, the SDK is not available on Android itself, but software development is possible by using specialized Android applications.

#### **Web Application**

It is a client–server computer program in which the client (including the user interface and client- side logic) runs in a web browser. Common web applications include web mail, online

retail sales, online auctions, wikis, instant messaging services and many other functions. web applications use web documents written in a standard format such as HTML and JavaScript, which are supported by a variety of web browsers. Web applications can be considered as a specific variant of client-server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as HTTP. The Client web software updates may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specified use case. In applications which are exposed to constant hacking attempts on the Internet, security-related problems can be caused by errors in the program.

Frameworks can also promote the use of best practices such as GET after POST. There are some who view a web application as a two-tier architecture. This can be a “smart” client that performs all the work and queries a “dumb” server, or a “dumb” client that relies on a “smart” server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn’t allow for true specialization of layers, so most applications will outgrow this model. An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry.

Security breaches on these kinds of applications are a major concern because it can involve both enterprise information and private customer data. Protecting these assets is an important part of any web application and there are some key operational areas that must be included in the development process. This includes processes for authentication, authorization, asset handling, input, and logging and auditing. Building security into the applications from the beginning can be more effective and less disruptive in the long run.

### Web design

It encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardized code and proprietary software; user experience design; and

search engine optimization. The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing mark up. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability and if their role involves creating mark up then they are also expected to be up to date with web accessibility guidelines. Web design partially overlaps web engineering in the broader scope of web development.

### **Departments and services offered**

Company plays an essential role as an institute, the level of education, development of student's skills are based on their trainers. If you do not have a good mentor then you may lag in many things from others and that is why we at Company gives you the facility of skilled employees so that you do not feel unsecured about the academics. Personality development and academic status are some of those things which lie on mentor's hands. If you are trained well then you can do well in your future and knowing its importance of Company always tries to give you the best.

They have a great team of skilled mentors who are always ready to direct their trainees in the best possible way they can and to ensure the skills of mentors we held many skill development programs as well so that each and every mentor can develop their own skills with the demands of the companies so that they can prepare a complete packaged trainee.

### **Services provided by Company.**

- Core Java and Advanced Java
- Web services and development
- Dot Net Framework
- Python
- Selenium Testing
- Conference / Event Management Service
- Academic Project Guidance
- On The Job Training
- Software Training

## **CHAPTER 3**

### **INTRODUCTION**

### **3. INTRODUCTION**

#### **Introduction to Web Apps**

Web applications are similar to the traditional applications you'd install on your Information, such as Microsoft Office. They are able to perform the same kinds of tasks, they look the same and they feel the same but there is one key difference - the application itself is not installed on your phone or Information, but lives in the cloud. Web apps are not new, but it used to be that they were often unable to compete with more traditional applications for business critical functions or where rich user interaction was required. This is no longer the case. With the power of modern web technologies, we are able to design and build performing, secure, and feature rich applications that live in the cloud and bring with them a huge number of benefits.

#### **1. They can be accessed from anywhere.**

- Because web applications are built with web technologies and they run in a web browser Internet Explorer, Google Chrome, Mozilla Firefox – this allows them to be accessed from every web enabled tool. As long as you have an internet connection you can use them.
- It allows for remote working, it allows for rapid publishing of content, it allows for real time collaboration between teams. If you have web access, you have the ability to access your business tools.

#### **2. They are cost effective.**

- Web applications are cheaper to produce and maintain than traditional applications. No matter how many platforms your business uses (Mac, Linux, Windows) web application build can be used across them all.

#### **3. They benefit from more rapid update cycles.**

- A huge benefit of web applications is that when an update is released, all of your users are immediately using that version. This doesn't happen with installed applications, especially in large organizations with IT policies that restrict administrator access.

#### **4. They are secure.**

- Web developers have had to become experts in security – the web is a platform designed to share everything with everyone! As such, the types and levels of security included in web applications are often far greater than those seen in traditional applications.

- They also benefit from the ability to launch updates in real-time – the application on the servers is the application people are using. The applications on people's laptops however is the version last installed. And when those laptops get left on a train it's not a concern, as nothing is stored locally.

#### **5. They enable more computing with fewer Information.**

- Web applications push all of the hard work to the servers, and act as intermediaries between the user interface and the calculations happening behind the scenes. This means you can accomplish terrifyingly complex work on a tablet, or your phone.
- We've built web applications that allow people to understand the complex relationships between 250,000 pieces of art on their phones, and applications that run the business systems of one of the largest solar energy providers in the world. Often these products are not financially viable to build using traditional application processes.

### **Problem Statement**

Develop an application which facilitates creation of web pages having a need to install any HTML editor based software and also which can be used by any novice user (no HTML knowledge needed) that is developing web pages on the online. This module is designed to reduce the process involved in managing the activity of customers and business where the business can sell their services and the customers can buy those.

### **Introduction to B2C Ecommerce Website Development with Admin Panel**

B2C E-commerce website content providers to focus on creating effective assessment questions and focusing on providing a platform for easy access between Buyer and Consumer.

Here we present techniques that are pertinent to the elements of assessment process: answers submission, Informationized grading, and feedback after submission. As the modern organizations are automated and Informations are working as per the instructions, it becomes essential for the coordination of human beings, commodity and Informations in a modern organization.



## **CHAPTER 4**

### **SYSTEM ANALYSIS**

## 4. SYSTEM ANALYSIS

### 1. Existing System:

Despite the various benefits provided by speech recognition, the system is also plagued with limitations. By implication the development of speech recognition applications also inherits these limitations. The existing Voice Assistants use pattern recognition techniques of python which lack in the context, Lack of accuracy, and misinterpretations, Time, costs and productivity, User accents. They operate only on online mode. They store the data in database servers which lead to increase in Time and Space Complexity. Some of them use cloud to store the data which leads to security issues. Background noise interference is also another daunting problem with speech recognition software.



Fig:Block diagram of existing system

### 2. Proposed System:

The proposed system of voice assistant will solve some issues of existing system as well introduce new features for better quality and usage. So, let's have a brief of the new updated version of the voice assistant.

Instead of pattern recognition technique which has been used in previous models, we use Natural Language Processing (NLP) techniques to recognize the text which is context based rather than the usual pattern based. This operates in online as well as offline mode. System application runs on offline mode, whereas web-based operations run on online mode. Data is stored in the application itself, rather than cloud which reduces Time and Space Complexity. It even reduces the economic cost due to reducing high bundles of data usage.

### **3. Objective of the System**

- Its application work in different areas
- Its implementation as a desktop Application
- This application as software that can be use for Speech Recognition
- Developing software for speech recognition
- Speech recognition is a technology that able a computer to capture the words spoken by a human with a help of microphone
- To build a model to recognize emotion from speech using the librosa and sklearn libraries and the RAVDESS dataset.

## **CHAPTER 5**

### **REQUIREMENT ANALYSIS**

## **5. REQUIREMENT ANALYSIS**

### **Hardware Requirement Specification**

- MySQL
- NODE JS
- Notepad++ Editor
- Processor: Intel core i5 processor
- Memory: 15.6 GB
- Hard Disk: 40 GB

### **Software Requirement Specification**

#### **A] Functional Requirements**

- Programing Language:HTML,CSS,JAVA SCRIPT,PYTHON DJANGO
- IDE:Visual studio
- Open source dataset

#### **B] Non-Functional Requirements**

##### **● Availability**

The online registration system shall permit backing up of the registration database while other registration activities are going on.

##### **● Accessibility**

The system shall be accessible by people with specific vision needs to the extent that a user shall be able to display whole user interface in a larger font without truncating displayed text or other values.

##### **● Security**

The access permissions for system data may only be change by the systems data administrator passwords shall never be viewable at the point of entry or any other time.

## **CHAPTER 6**

### **DESIGN ANALYSIS**

## **6. DESIGN & ANALYSIS**

The Voice Assistant performs basic operations such as controlling computer tasks and operations, asking for temperature, humidity, date, time, and year. Adding, reading and deleting notes using voice commands and playing YouTube videos on demand.

The above tasks can be performed using certain methodologies in which each technique has its own functionality and different operations to be performed. Each technique has different process logic to be executed.

### **Techniques to be implemented:**

1. Speech Recognition
2. NLP
3. Threading
4. Scraping

### **Offline Speech Recognition:-**

The application is able to recognize the voice from the user end without internet connection. The verbal commands are converted to text and the operations take place.

### **Content Opener:-**

The application is able to open files, folders, drives, documents present in the system.

#### **Making Notes:-**

The application is able to create, read, write and delete notes.

#### **Search:-**

The application is able to search YouTube videos, songs, Wikipedia, google for any information in the internet.

### **Updates:-**

The application gives updates regarding the date, time, day, weather, humidity, temperature.

## **Hardware Design:**

**Hardware Methodology** If we look at the hardware methodologies, it's been clear from our project that we have used a microcontroller, as this is the basic thing for carrying out all the necessary compilation of program and cause the effect on the utilities according to the input by the users. There are a number of microcontrollers that are available in the market, like raspberry pie, Arduino Uno etc. But according to our comfort and the efficiency that we were looking for, Arduino Uno is the best one to be chosen for our project. Raspberry pie is quite complex, as it uses the Linux based operating system and it uses the python language. To work on this language was totally new to us, so we decided to rather go for the Arduino microcontroller because of its simplicity and efficiency

## **Software Design:**

**Software Methodology** To accomplish the project, we had to go through various software methodologies, so that we could the one which is best to fulfil the requirements in an efficient manner. In the market, there are many software tools that are available, and even that could be different in its own way according to the purpose of using. So, in our case, after careful analysis, we have chosen MIT App INVENTOR, because of its some specific advantages. There is some other software' that we could possibly use, but we have decided to use MIT App INVENTOR as this is easy to make an android application. There are android studio and eclipse that use java language to make application, but our target was to achieve the project in much simpler and efficient manner, so the other android studies are quite complicated and even some are less efficient. Because of that, we have decided to go for the APP INVENTOR instead which is simpler and easy to use

## **ABOUT API:**

Google Maps Platform products are secured from unauthorized use by restricting API calls to those that provide proper authentication credentials. These credentials are in the form of an API key - a unique alphanumeric string that associates your Google billing account with our project, and with the specific API or SDK.

The API key is a unique identifier that authenticates requests associated with your project for usage and billing purposes. You must have at least one API key associated with your project.

## **ABOUT UNSPLASH:**

In addition to its website, Unsplash provides a public application programming interface (API) that answers more than 3.8 billion photo requests per month. Some of the products using the Unsplash API include Medium, Trello, Squarespace, CodePen, Square as well as Unsplash own series of products such as Unsplash for iOS, Unsplash Instant, an extension for Google Chrome that loads Unsplash photos in new tabs and Unsplash for Apple TV.



# **CHAPTER 7**

## **IMPLEMENTATION**

## **7. IMPLEMENTATION**

Implementation is the stage where the theoretical design is turned into a working system. The most crucial stage in achieving a new successful system and in giving confidence on the new system for the users that it will work efficiently and effectively.

The system can be implemented only after thorough testing is done and if it is found to work according to the specification. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the change over and an evaluation of change over methods as part from planning.

Two major tasks of preparing the implementation are education and training of the users and testing of the system. The more complex the system being implemented, the more involved will be the system analysis and design effort required just for implementation.

The implementation phase comprises of several activities. The required hardware and software acquisition is carried out. The system may require some software to be developed. For this, programs are written and tested. The user then changes over to his new fully tested system and the old system is discontinued.

### **TESTING**

The testing phase is an important part of software development. It is the Information zed system will help in automate process of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. Software testing is carried out in three steps:

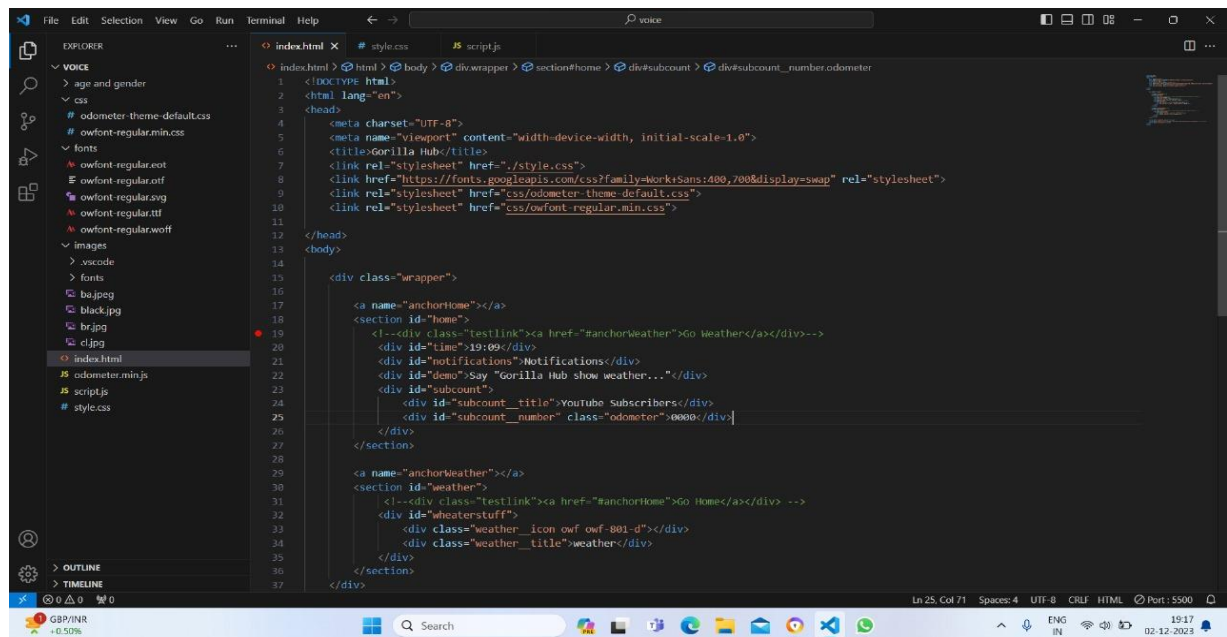
1. The first includes unit testing, where in each module is tested to provide its correctness, validity and also determine any missing operations and to verify whether the objectives have been met. Errors are noted down and corrected immediately.
2. Unit testing is the important and major part of the project. So errors are rectified easily in particular module and program clarity is increased. In this project entire system is divided into several modules and is developed individually. So unit testing is conducted to individual modules.
3. The second step includes Integration testing. It need not be the case, the software whose modules when run individually and showing perfect results, will also show perfect results when run as a whole.

## **CHAPTER 8**

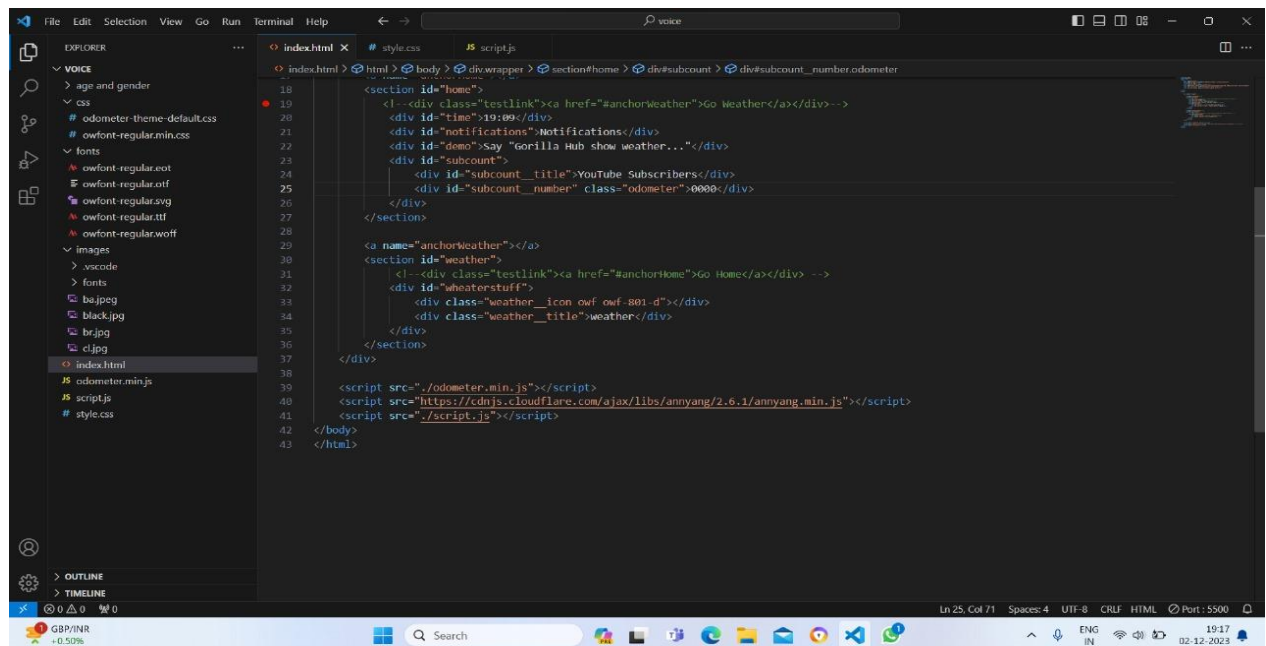
### **SNAPSHOTS**

## 8. SNAPSHOTS

### >Snapshot of HTML code:

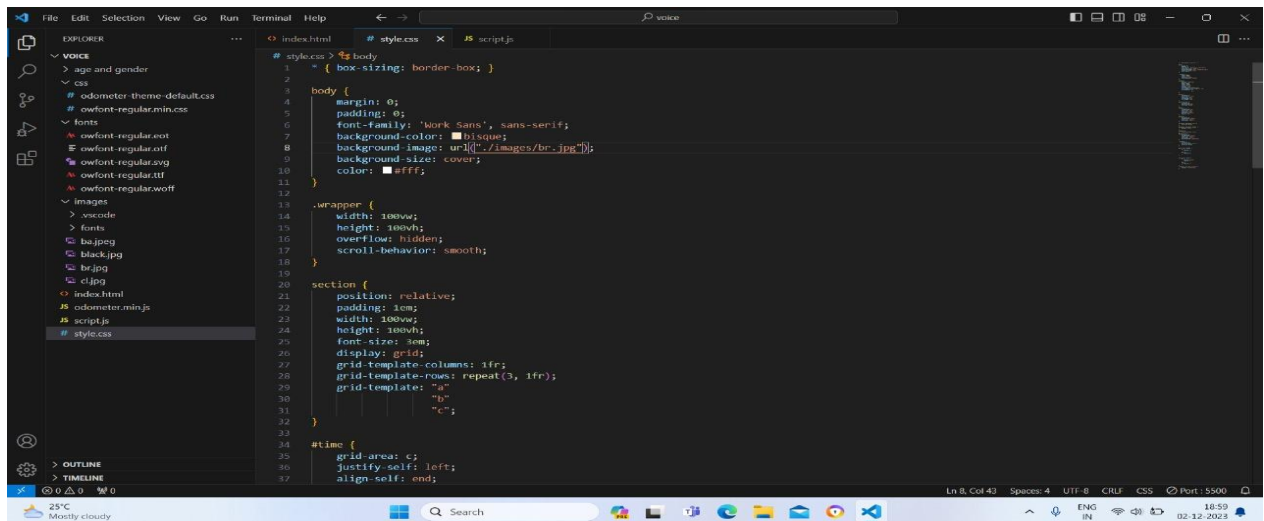


```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Gorilla Hub</title>
7   <link rel="stylesheet" href="style.css">
8   <link href="https://fonts.googleapis.com/css?family=Work+Sans:400,700&display=swap" rel="stylesheet">
9   <link rel="stylesheet" href="css/odometer-theme-default.css">
10  <link rel="stylesheet" href="css/owfont-regular.min.css">
11 </head>
12 <body>
13
14
15   <div class="wrapper">
16
17     <a name="anchorHome"></a>
18     <section id="home">
19       <!--<div class="testlink"><a href="#anchorWeather">Go Weather</a></div-->
20       <div id="time">19:09</div>
21       <div id="notifications">Notifications</div>
22       <div id="demo">Say "Gorilla Hub show weather..."</div>
23       <div id="subcount">
24         <div id="subcount_title">YouTube Subscribers</div>
25         <div id="subcount_number" class="odometer">0000</div>
26       </div>
27     </section>
28
29     <a name="anchorWeather"></a>
30     <section id="weather">
31       <!--<div class="testlink"><a href="#anchorHome">Go Home</a></div-->
32       <div id="weatherstuff">
33         <div class="weather_icon owf owf-801-d"></div>
34         <div class="weather_title">weather</div>
35       </div>
36     </section>
37   </div>
```

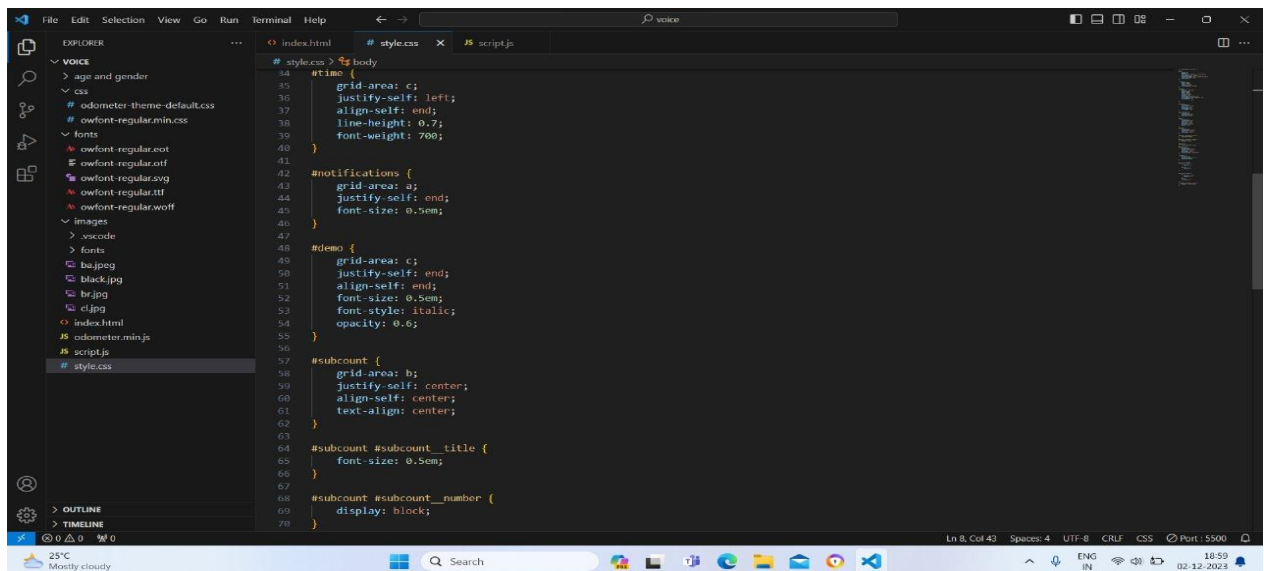


```
18 <section id="home">
19   <!--<div class="testlink"><a href="#anchorWeather">Go Weather</a></div-->
20   <div id="time">19:09</div>
21   <div id="notifications">Notifications</div>
22   <div id="demo">Say "Gorilla Hub show weather..."</div>
23   <div id="subcount">
24     <div id="subcount_title">YouTube Subscribers</div>
25     <div id="subcount_number" class="odometer">0000</div>
26   </div>
27 </section>
28
29 <a name="anchorWeather"></a>
30 <section id="weather">
31   <!--<div class="testlink"><a href="#anchorHome">Go Home</a></div-->
32   <div id="weatherstuff">
33     <div class="weather_icon owf owf-801-d"></div>
34     <div class="weather_title">weather</div>
35   </div>
36 </section>
37 </div>
38
39 <script src="/odometer.min.js"></script>
40 <script src="https://cdn.jsdelivr.net/npm/jquery@2.6.1/dist/jquery.min.js"></script>
41 <script src="/script.js"></script>
42 </body>
43 </html>
```

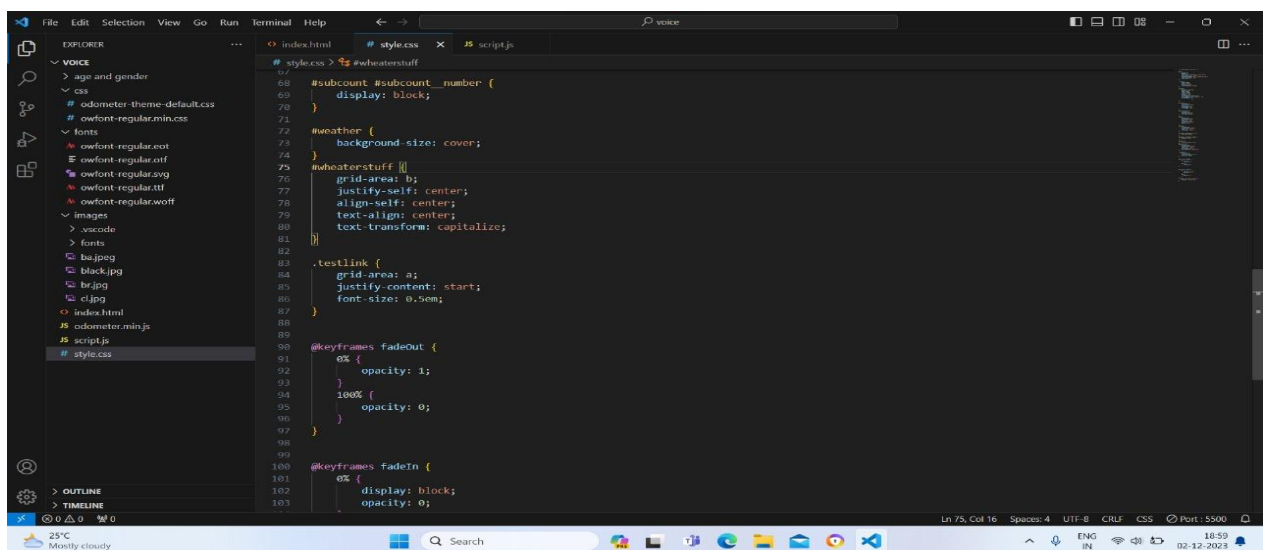
## >Snapshot of CSS code:



```
# style.css
1  * {
2    box-sizing: border-box; }
3
4  body {
5    margin: 0;
6    padding: 0;
7    font-family: 'Work Sans', sans-serif;
8    background-color: #1a202c;
9    background-image: url("../images/br.jpg");
10   background-size: cover;
11   color: #fff; }
12
13  .wrapper {
14    width: 100vw;
15    height: 100vh;
16    overflow: hidden;
17    scroll-behavior: smooth; }
18
19
20  section {
21    position: relative;
22    padding: 1em;
23    width: 100vw;
24    height: 100vh;
25    font-size: 1em;
26    display: grid;
27    grid-template-columns: 1fr;
28    grid-template-rows: repeat(3, 1fr);
29    grid-template: "a"
30                  "b"
31                  "c";
32  }
33
34  #time {
35    grid-area: c;
36    justify-self: left;
37    align-self: end; }
```

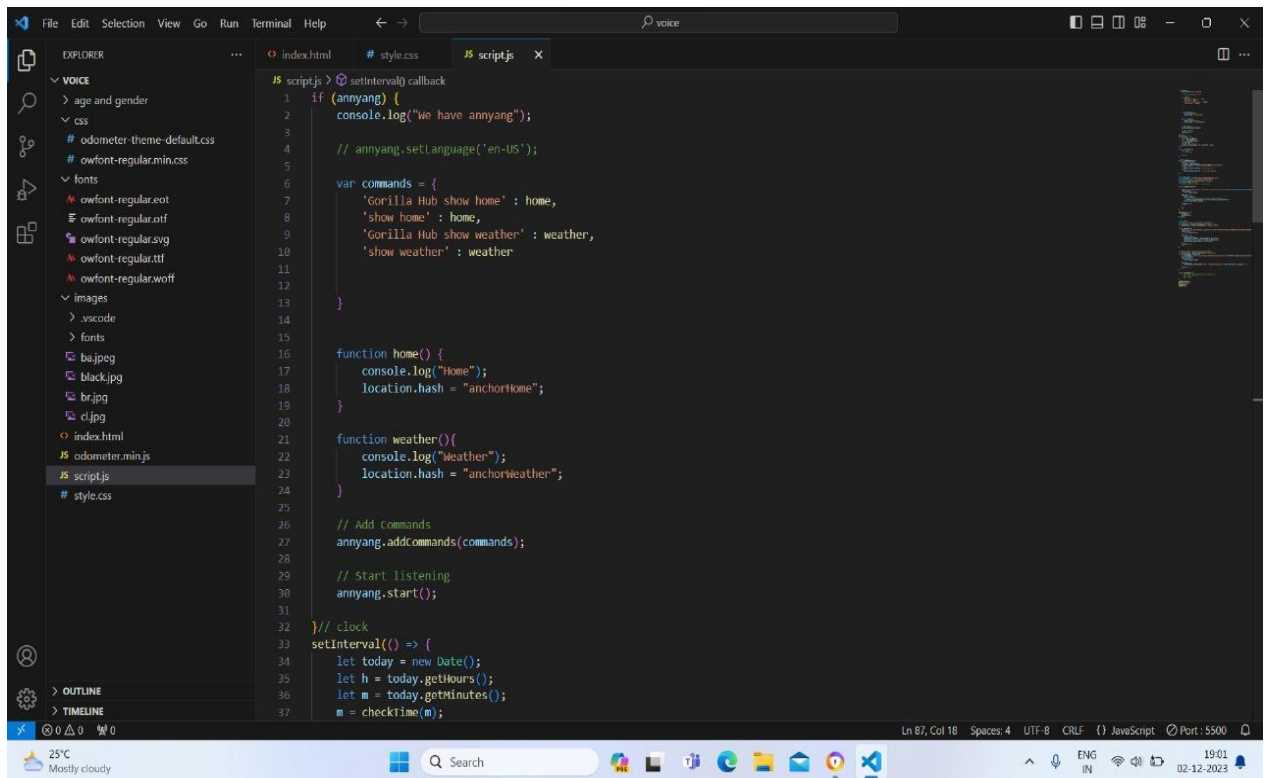


```
# style.css
34  #time {
35    grid-area: c;
36    justify-self: left;
37    align-self: end;
38    line-height: 0.7;
39    font-weight: 700; }
40
41  #notifications {
42    grid-area: a;
43    justify-self: end;
44    font-size: 0.5em; }
45
46
47  #demo {
48    grid-area: c;
49    justify-self: end;
50    align-self: end;
51    font-size: 0.5em;
52    font-style: italic;
53    opacity: 0.6; }
54
55  #subcount {
56    grid-area: b;
57    justify-self: center;
58    align-self: center;
59    text-align: center; }
60
61  #subcount_title {
62    font-size: 0.5em; }
63
64  #subcount_number {
65    display: block; }
```

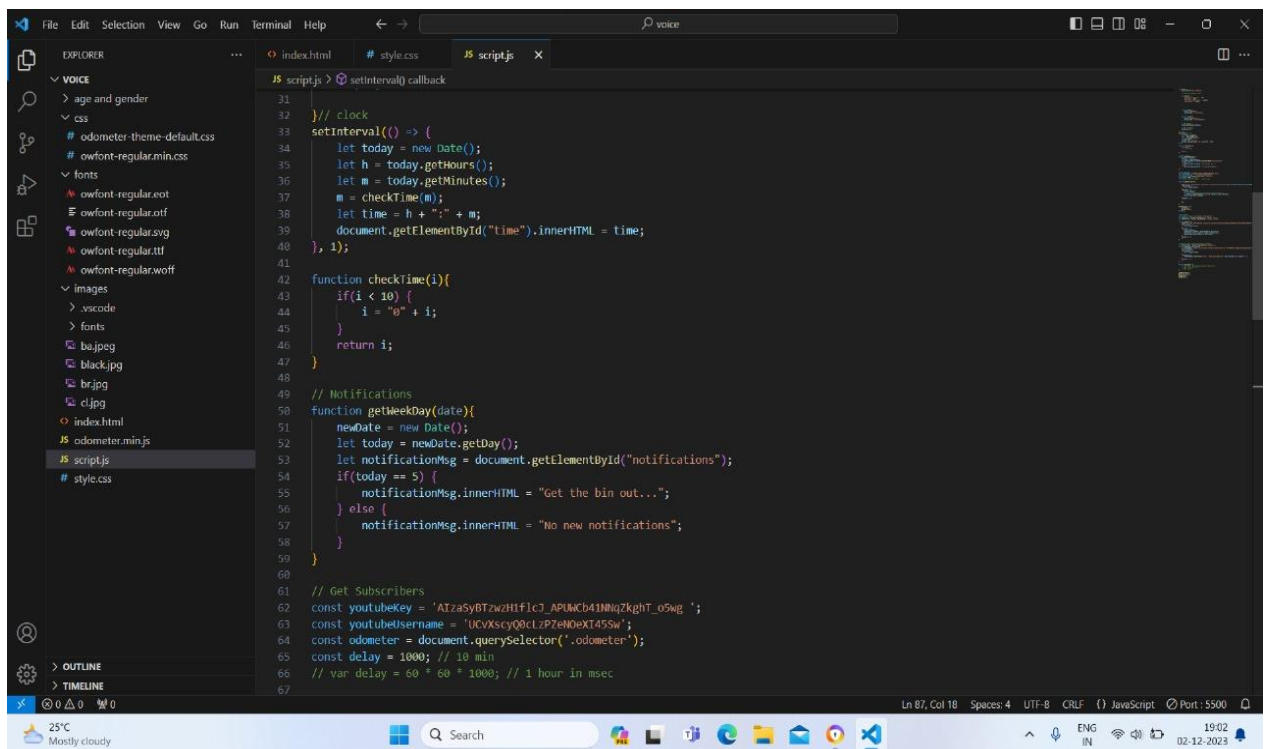


```
# style.css
67  #weatherstuff {
68    #subcount #subcount_number {
69      display: block; }
70  }
71
72  #weather {
73    background-size: cover; }
74
75  #weatherstuff {
76    grid-area: b;
77    justify-self: center;
78    align-self: center;
79    text-align: center;
80    text-transform: capitalize; }
81
82  #testlink {
83    grid-area: a;
84    justify-content: start;
85    font-size: 0.5em; }
86
87  @keyframes fadeOut {
88    0% {
89      opacity: 1; }
90    100% {
91      opacity: 0; } }
92
93  @keyframes fadeIn {
94    0% {
95      display: block;
96      opacity: 0; }
```

## >Snapshot of Javascript code:



```
1  if (anyang) {
2    console.log("We have anyang");
3
4    // anyang.setLanguage('en-US');
5
6    var commands = {
7      'Gorilla Hub show home' : home,
8      'show home' : home,
9      'Gorilla Hub show weather' : weather,
10     'show weather' : weather
11   }
12
13   }
14
15   function home() {
16     console.log("Home");
17     location.hash = "anchorHome";
18   }
19
20   function weather(){
21     console.log("Weather");
22     location.hash = "anchorWeather";
23   }
24
25   // Add commands
26   anyang.addcommands(commands);
27
28   // Start listening
29   anyang.start();
30
31 } // clock
32 setInterval(() => {
33   let today = new Date();
34   let h = today.getHours();
35   let m = today.getMinutes();
36   m = checkTime(m);
37   m = checkTime(m);
```



```
38   let time = h + ":" + m;
39   document.getElementById("time").innerHTML = time;
40 }, 1);
41
42 function checkTime(i){
43   if(i < 10) {
44     i = "0" + i;
45   }
46   return i;
47 }
48
49 // Notifications
50 function getWeekDay(date){
51   newDate = new Date();
52   let today = newDate.getDay();
53   let notificationMsg = document.getElementById("notifications");
54   if(today == 5) {
55     notificationMsg.innerHTML = "Get the bin out...";
56   } else {
57     notificationMsg.innerHTML = "No new notifications";
58   }
59 }
60
61 // Get Subscribers
62 const youtubeKey = 'AIzaSyBTzwzHf1c3_APUMCb41NNqZkghT_05wg ';
63 const youtubeUsername = 'UCVXscyQ0clzP7eH0eXT45Sw';
64 const odometer = document.querySelector(".odometer");
65 const delay = 1000; // 10 min
66 // var delay = 60 * 60 * 1000; // 1 hour in msec
67
```

```
File Edit Selection View Go Run Terminal Help
voice

EXPLORER
VOICE
  age and gender
  css
    odometer-theme-default.css
    owfont-regular.min.css
  fonts
    owfont-regular.eot
    owfont-regular.ottf
    owfont-regular.svg
    owfont-regular.ttf
    owfont-regular.woff
  images
    .vscode
    fonts
    ba.jpeg
    black.jpg
    br.jpg
    cl.jpg
    index.html
    odometer.min.js
    script.js
    style.css

OUTLINE
TIMELINE

25°C Mostly cloudy
Search
19:02 02-12-2023
```

```
script.js
setInterval() callback
94 let weatherIcon = document.querySelector('.weather_icon');
95 let weatherTitle = document.querySelector('.weather_title');
96
97 function getWeather() {
98   fetch('http://api.openweathermap.org/geo/1.0/direct?q=London&limit=5&appid=b3694d551cc33f4c3f95d7173b90c339')
99   .then(response => {
100     return response.json()
101   })
102   .then(data => {
103     console.log(data);
104     weatherTitle.innerHTML = data.weather[1].description;
105     weatherIcon.classList.add('owf-${data.weather[1].id}');
106     getWeatherPhoto(data.weather[1].description);
107   })
108   .catch(err => {
109   })
110 }
111
112 // Unsplash change weather photo based on weather
113 let weatherWrapper = document.querySelector('#weather');
114 function getWeatherPhoto(weather) {
115   let unsplashApi = 'https://api.unsplash.com/search/photos?client_id="pfqrvbh1AXs" &page=1&per_page=1&query='+weather;
116   fetch(unsplashApi)
117   .then(response => {
118     return response.json()
119   })
120   .then(data => {
121     weatherWrapper.setAttribute('style', 'background-image:url('+ data.results[0].urls.regular +');');
122   })
123   .catch(err => {
124   })
125 }
126
127 function playSound() {
128   // const audio = document.querySelector("#gorilla");
129   // audio.currentTime = 0;
130   // audio.play();
131 }
132
133 getWeatherPhoto();
134 getSubscribers();
135 getWeekday();
136 getWeather();
137
138
139
```

```
File Edit Selection View Go Run Terminal Help
voice

EXPLORER
VOICE
  age and gender
  css
    odometer-theme-default.css
    owfont-regular.min.css
  fonts
    owfont-regular.eot
    owfont-regular.ottf
    owfont-regular.svg
    owfont-regular.ttf
    owfont-regular.woff
  images
    .vscode
    fonts
    ba.jpeg
    black.jpg
    br.jpg
    cl.jpg
    index.html
    odometer.min.js
    script.js
    style.css

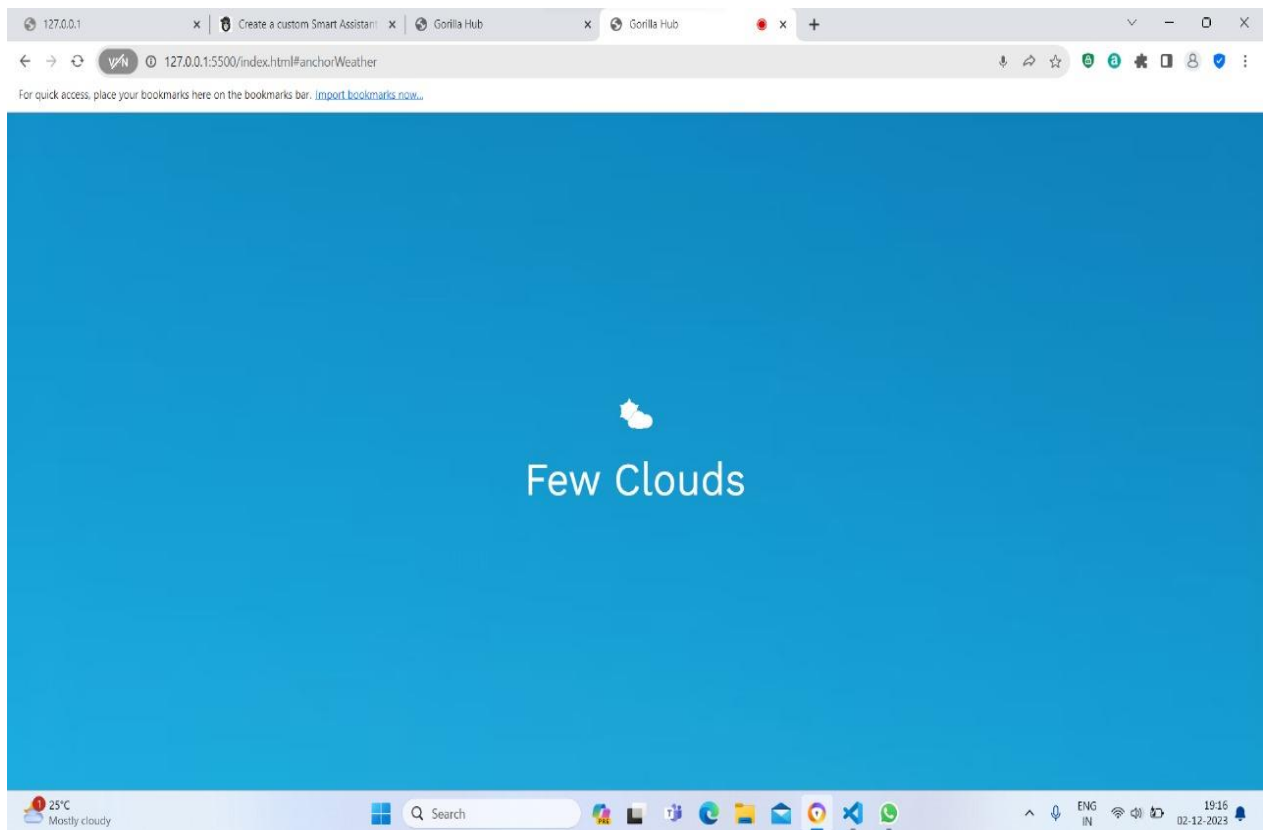
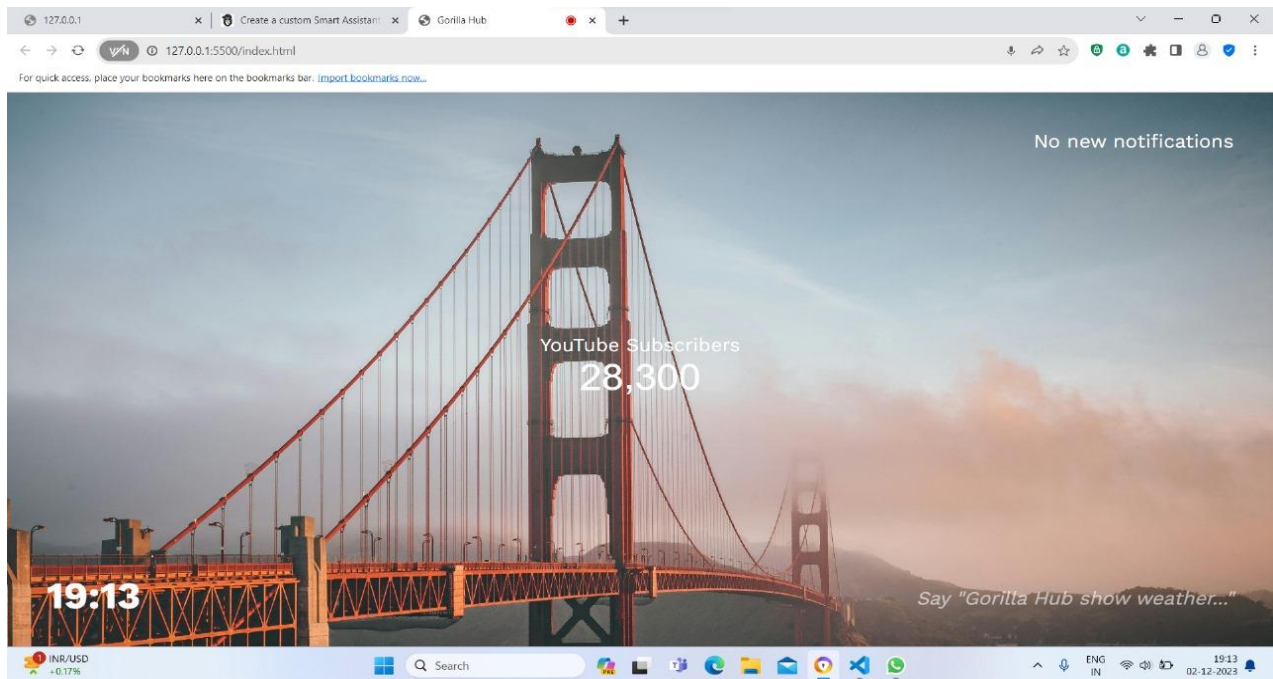
OUTLINE
TIMELINE

25°C Mostly cloudy
Search
19:03 02-12-2023
```

```
script.js
setInterval() callback
110
111
112 // Unsplash change weather photo based on weather
113 let weatherWrapper = document.querySelector('#weather');
114 function getWeatherPhoto(weather) {
115   let unsplashApi = 'https://api.unsplash.com/search/photos?client_id="pfqrvbh1AXs" &page=1&per_page=1&query='+weather;
116   fetch(unsplashApi)
117   .then(response => {
118     return response.json()
119   })
120   .then(data => {
121     weatherWrapper.setAttribute('style', 'background-image:url('+ data.results[0].urls.regular +');');
122   })
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124   })
125 }
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131 }
132
133 getWeatherPhoto();
134 getSubscribers();
135 getWeekday();
136 getWeather();
137
138
139
```



## >Output of Voice-controlled Smart Assistant:





## **CHAPTER 9**

### **CONCLUSION**

## **9. CONCLUSION**

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project:

- ❖ Automation of the entire system improves the efficiency
- ❖ It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- ❖ It gives appropriate access to the authorized users depending on their permissions.
- ❖ It effectively overcomes the delay in communications.
- ❖ Updating of information becomes so easier
- ❖ System security, data security and reliability are the striking features.
- ❖ The System has adequate scope for modification in future if it is necessary.

## 10. REFERENCE

- [1] T. Vogt and E. André, "Comparing feature sets for acted and spontaneous speech in view of automatic emotion recognition," in Proc. IEEE Int. Conf. Multimedia Expo (ICME), Jul 2005, pp. 474-477.
- [2] C.-N. Anagnostopoulos, T. Iliou, and L. Giannoukos, "Features and classifiers for emotion recognition from speech: A survey from 2000 to 2011," Artif. Intell. Rev., vol. 43, no. 2, pp.155-177, 2015
- [3] A. Batliner, B. Schuller, D. Seppi, S. Steidl, L. Devillers, L. Vidrascu, T. Vogt, V. Aharonson, and N. Amir. "The automatic recognition of emotions in speech," in Emotion-Oriented Systems. Springer, 2011, pp. 71-99
- [4] E. Mower, M. J. Mataric, and S. Narayanan, "A framework for automatic human emotion
- [5] classification using emotion profiles," IEEE Trans. Audio, Speech, Language Process., vol. 19, no. 5, pp. 1057-1070, Jul. 2011.
- [6] J. Han, Z. Zhang, F. Ringeval, and B. Schuller. "Prediction-based learning for continuous emotion recognition in speech." in Proc. IEEE Int. Conf. Acoust.. Speech Signal Process. (ICASSP), Mar. 2017, pp 5005-5009.
- [7] <https://data-flair.training/blogs/python-mini-project-speech-emotion-recognition/>
- [8] <https://www.studocu.com/in/document/chandigarh-university/disruptive-technologies-2/ser-final-report/27338335>
- [9] [https://www.tutorialspoint.com/machine\\_learning\\_with\\_python/machine\\_learning\\_with\\_python\\_tutorial.pdf](https://www.tutorialspoint.com/machine_learning_with_python/machine_learning_with_python_tutorial.pdf)

