

**A**  
**Summer Internship Report**  
**On**  
**“Adhive”**

(IT346 – Summer Internship - I)

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**Under the Supervision of**  
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**Submitted to**  
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for the Partial Fulfillment of the Requirements for the  
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for Semester 5

**Submitted at**



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INFORMATION TECHNOLOGY**

**Chandubhai S. Patel Institute of Technology (CSPIT)**  
**Faculty of Technology & Engineering (FTE), CHARUSAT**  
**At: Changa, Dist: Anand, Pin: 388421.**  
**August, 2023**

## **CANDIDATE'S DECLARATION**

Declaration by Adhive Team

I Mayank Asodariya hereby declare that the project work titled Adhive is an original and independent work carried out by me & his Team as a part of Our Summer Internship in Srashtasoft.

I further declare that:

The project work has not been submitted earlier for any degree or diploma to this or any other institution. The project work has not been copied, plagiarized or imitated from any other source. The work of others used in this project report has been duly acknowledged and cited in the bibliography. The project work does not contain any material that infringes upon any intellectual property rights, personal rights or rights of privacy of any individual, group or entity. The project work is in compliance with the guidelines and norms of the Charusat University And Srashtasoft Software Company.

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**Accredited with Grade A+ by NAAC**  
**Accredited with Grade A by KCG**

## CERTIFICATE

This is to certify that the report entitled “Adhive” is a bonafied work carried out by **Mayank Asodariya(21IT003)** under the guidance and supervision of **Prof. Dhaval Patel** for the subject **Summer Internship – I (IT346)** of 5<sup>th</sup> Semester of Bachelor of Technology in **Computer Engineering** at Chandubhai S. Patel Institute of Technology (CSPIT), Faculty of Technology & Engineering (FTE) – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred by the examiner(s).

Under the supervision of,

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## CERTIFICATE

This letter is to certify that **Asodariya Mayank Jayantibhai** has successfully completed his summer internship at **SrashtaSoft** as curricular training of 4th Semester which is associated with the academic program at the **Chandubhai S. Patel Institute of Technology at Changa, Gujarat.**

His internship tenure was from **8th May** to **16th June 2023**. He was working in **MERN Stack**. He was actively & diligently involved in the tasks assigned to him.

We wish him a bright future.

For, SrashtaSoft

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## **ABSTRACT**

The proposed web app provides a platform for customers to display their ads on screens and access ad analytics, partners to offer spaces for screen installation, and an administrator to oversee all aspects, including approving ad and partner requests. Customers can easily upload and manage ads, track performance, and target specific audiences. Partners can register spaces, manage screen usage, and receive compensation. The administrator maintains system functionality, approves requests, and provides support, creating a collaborative ecosystem for digital advertising. Many business owners (which includes small home businesses ,medium scale businesses ,any public announcements ,public awareness ads) wants to run their ads in some dedicated areas(such as restaurants , Residential Lifts , traffic signals etc..) through which they can attract more people towards their products or place. This website helps to display their ads in their desired areas through collaborating with proper ad publisher partners. This documents includes the report for creating and managing the business owner accounts and the same for ad publisher partners.

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## **CHAPTER -1: INTRODUCTION**

## 1.1 PURPOSE OF INTERNSHIP

The main purpose of this internship is to enhance professional and personal skill development which enables us to gain a planned and directed learning experience. It also enable us to integrate knowledge gained through their industry learning with the competencies made available through actual experience in a professional setting. The goals of this internship are:

- Learn and develop practical skills
- Gain first hand understanding of the inner workings of an organization
- Make a positive contribution to an organization
- Solve problems by taking initiative and using creativity
- Clarify career goals
- Observe and Learn ethics at work
- Observe and work with professionals in the field

## 1.2 OVERVIEW OF PROJECT

The goal of this project is to develop a web application that addresses the challenges faced by business owners in traditional poster advertising methods. The application aims to provide a digital advertising solution that offers greater control, precise analysis, and targeted ad placement.

The primary users of the application are business owners who wish to advertise their products or services. Traditionally, they rely on physical posters displayed in targeted areas. However, this approach lacks real-time tracking and analysis. The proposed web application will allow business owners to run their ads on digital screens in specific locations, providing them with more visibility and accurate data on ad performance.

The web application will enable clients to manage their ad campaigns efficiently. They will have access to features such as tracking the number of ads currently running, identifying the locations where ads are displayed, and estimating the pending ads. This data will help clients gain insights into the reach and effectiveness of their advertising efforts, enabling them to make informed decisions.

Additionally, the application will serve as a platform for ad publisher partners who provide locations to install the LCD screens for displaying ads. Publisher partners will have access to information about the number of ads running on their displays. They will also have the ability to select specific categories for ads to be displayed, ensuring that the content aligns with their preferences and target audience.

The web application will facilitate a seamless connection between clients and publisher partners. Clients can choose their desired categories, and the application will filter and match these preferences with available publisher partners. This ensures that the ads are displayed in relevant locations that resonate with the target audience.

Overall, the web application aims to revolutionize the advertising process by providing a digital platform for targeted ad placement and comprehensive analysis. It empowers businesses to make data-driven decisions, increase their advertising reach, and maximize their return on investment.

### 1.3 OBJECTIVE

Provide clients with a user-friendly interface to manage their ad campaigns, including tracking the number of ads running, locations of ad displays, and pending ads. Implement an analytics system to provide clients with accurate data on the performance of their ad campaigns, including the number of views and engagement metrics.

### 1.4 SCOPE

The scope of this project includes developing a user-friendly web application for digital ad placement on LCD screens in targeted locations, providing clients with campaign management, analytics, and real-time tracking. Additionally, the project involves creating a platform for ad publisher partners to offer their locations, select preferred ad categories, and view relevant data, while ensuring scalability, security, and adherence to industry standards.

### 1.5 ROLES AND RESPONSIBILITIES

Table 1.5.1 Roles and Responsibilities

|                    |                            |
|--------------------|----------------------------|
| Front End          | Rana Harsh(21CE114)        |
|                    | Pandya Kalp(21CE084)       |
|                    | Patel Manav(21CE097)       |
|                    | Mayank Asodariya(21IT003)  |
| Backend & Database | Bodana Yuvrajsinh(21CS004) |
|                    | Rabara Aryaan(21CE112)     |
|                    | Patel Aryan(21CS038)       |

## **CHAPTER -2: SYSTEM ANALYSIS**

## 2.1 USER CHARACTERISTICS

There are mainly 2 types of user that can interact with the system.

- Customers
- Partner
- Admin

The web app empowers customers by allowing them to easily upload and manage their advertisements through a user-friendly interface.

Partners play a vital role in the network by providing physical locations for the installation of screens. They can register their available spaces through the web app, showcasing the potential reach of the advertising network. Partners can receive compensation for hosting advertisements.

The administrator is responsible for maintaining the overall functionality and integrity of the platform. They oversee the approval and disapproval processes for both ad requests and partner requests, ensuring that the network maintains a high standard of quality.

## 2.2 HARDWARE AND SOFTWARE

Development Environment:

**Processor:** Intel Core i5 or higher

**RAM:** 8GB or more

**Hard Drive:** 256GB SSD or more

**Operating System:** Windows 10 or more, MacOS

**Technology:** Node JS, Express JS, React JS

**Integrated Development Environment (IDE):** Visual Studio Code, Eclipse

**Tools:** Figma , Github

**Database management system:** MongoDB

Hosting Environment:

**Processor:** Dual-core CPU or higher

**RAM:** 4GB or more

**Hard Drive:** 256GB SSD or more

**Operating System:** Windows Server, macos

**Database management system:** MongoDB

## **CHAPTER -3: SYSTEM DESIGN**

### 3.1 DATA DICTIONARY

#### Login Details:-

| Field Name | Data Type | Example  |
|------------|-----------|--|
| _ids       | Number    | 1  |
| user Names | String    | David  |
| emails     | String    | <a href="mailto:david@gmail.com">david@gmail.com</a> |
| passwords  | String    | <a href="#">David@23</a>                             |

3.1.1 Data Dictionary(1)

#### Booking Placement:-

| Field Name        | Data Type     | Example     |
|-------------------|---------------|-------------|
| _ids              |               |             |
| companyNames      | String        | Tata        |
| companyOwnerNames | String        | Ratan tata  |
| companyContactNos | Number        | 1234567890  |
| companyEmails     | String        | Gmail.com   |
| companyAddress    | String        | gvd         |
| companyTypes      | String        | Showroom    |
| adTypes           | String        | Video       |
| adDurations       | Number(sec)   | 20          |
| timelines         | Number(Hours) | 2           |
| adPhoto/adVideo   | upload option | Photo/video |
| perdayAdCount     | Number        | 10          |
| amount            | Number        | 5000        |

3.1.2 Data Dictionary(2)

**Partners (Ad-publishers):-**

| Field Name       | Data Type | Example     |
|------------------|-----------|-------------|
| _ids             | Number    | 1           |
| companyName      | String    | Burger King |
| partnerName      | String    | xcv         |
| partnerContactNO | Number    | 1234567890  |
| partnerEmail     | String    | cvd         |
| businessType     | String    | xys         |
| location         | String    | Ahemdabad   |

3.1.3 Data Dictionary(3)

**Contact Us:-**

| Field Name | Data Type | Example  |
|------------|-----------|--|
| userName   | String    | gdvx   |
| email      | String    | <a href="mailto:David@gmail.com">David@gmail.com</a> |
| message    | String    | qwer   |

3.1.4 Data Dictionary(4)

**Transactions :-**

| Field Name     | Data Type | Example |
|----------------|-----------|---------|
| company Name   | String    | xyz     |
| order ID       | Number    | 12345   |
| transection Id | Number    | 1234    |
| amout          | Number    | 1234    |
| method         | String    | UPI ID  |

3.1.5 Data Dictionary(5)



## 3.2 FLOWCHARTS FOR MORE DETAILS

### 3.2.1 CLIENT SIDE FLOWCHART

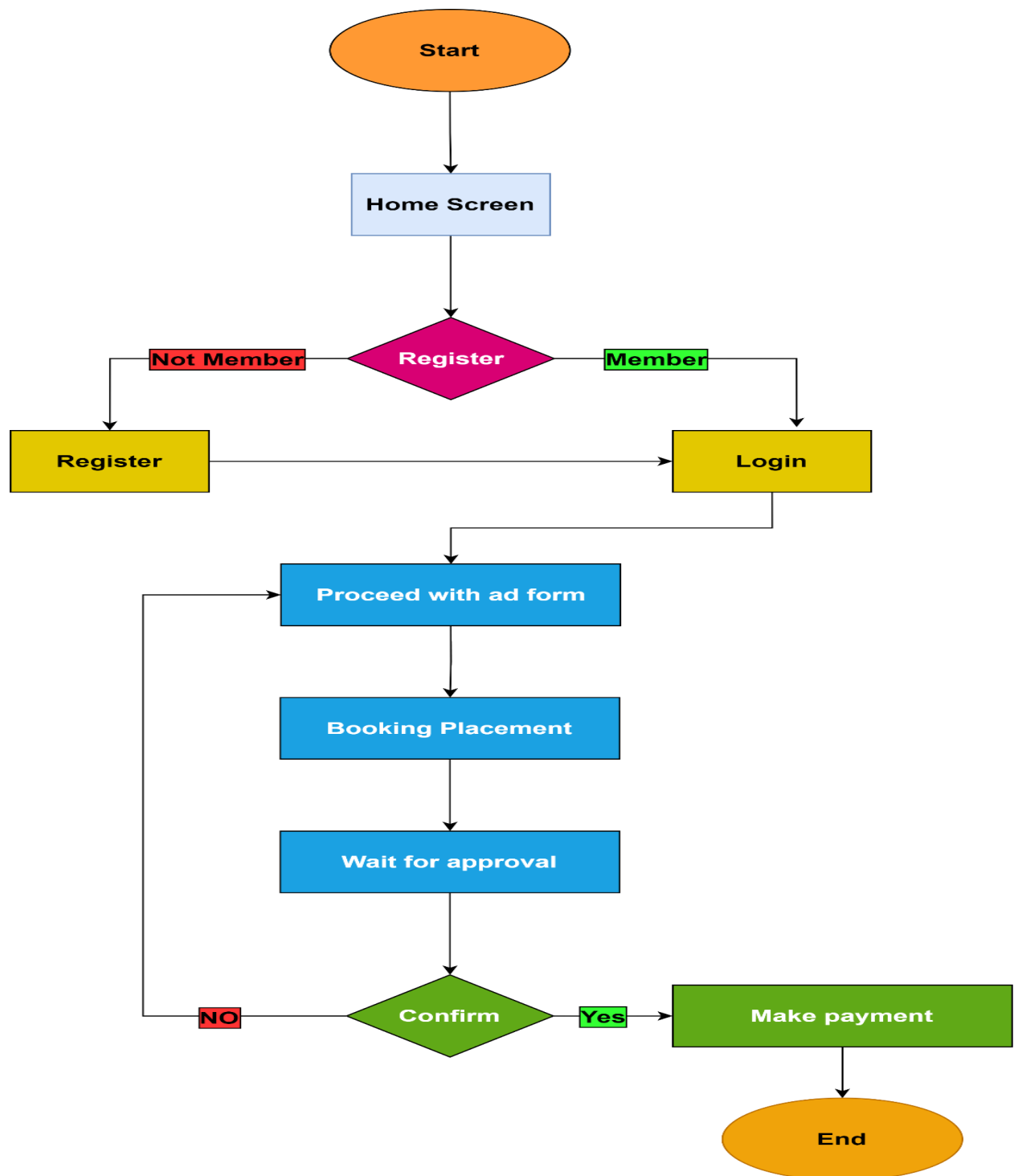


Fig 3.2.1 clientside flowchart

### 3.2.2 CLIENT DASHBOARD DETAILS

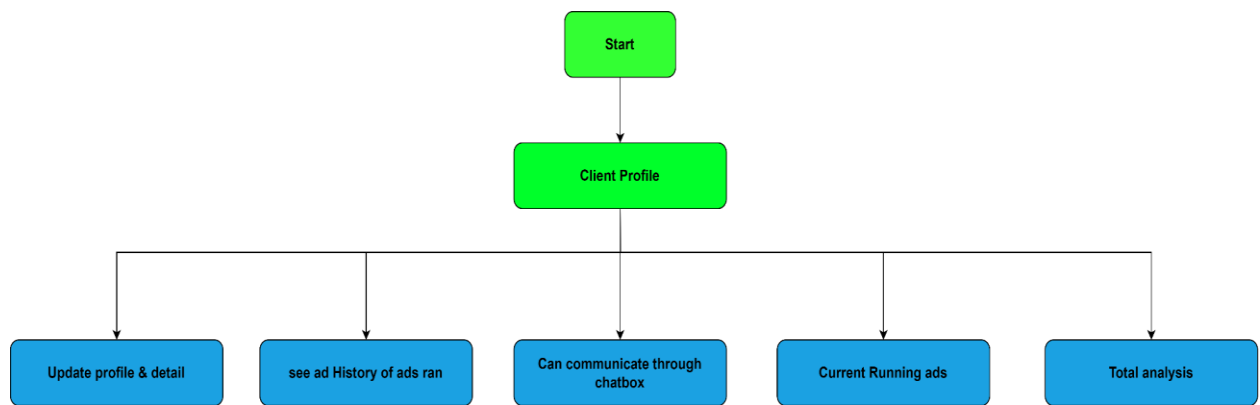


Fig 3.2.2 client dashboard flowchart

### 3.2.3 ADMIN SIDE FLOWCHART

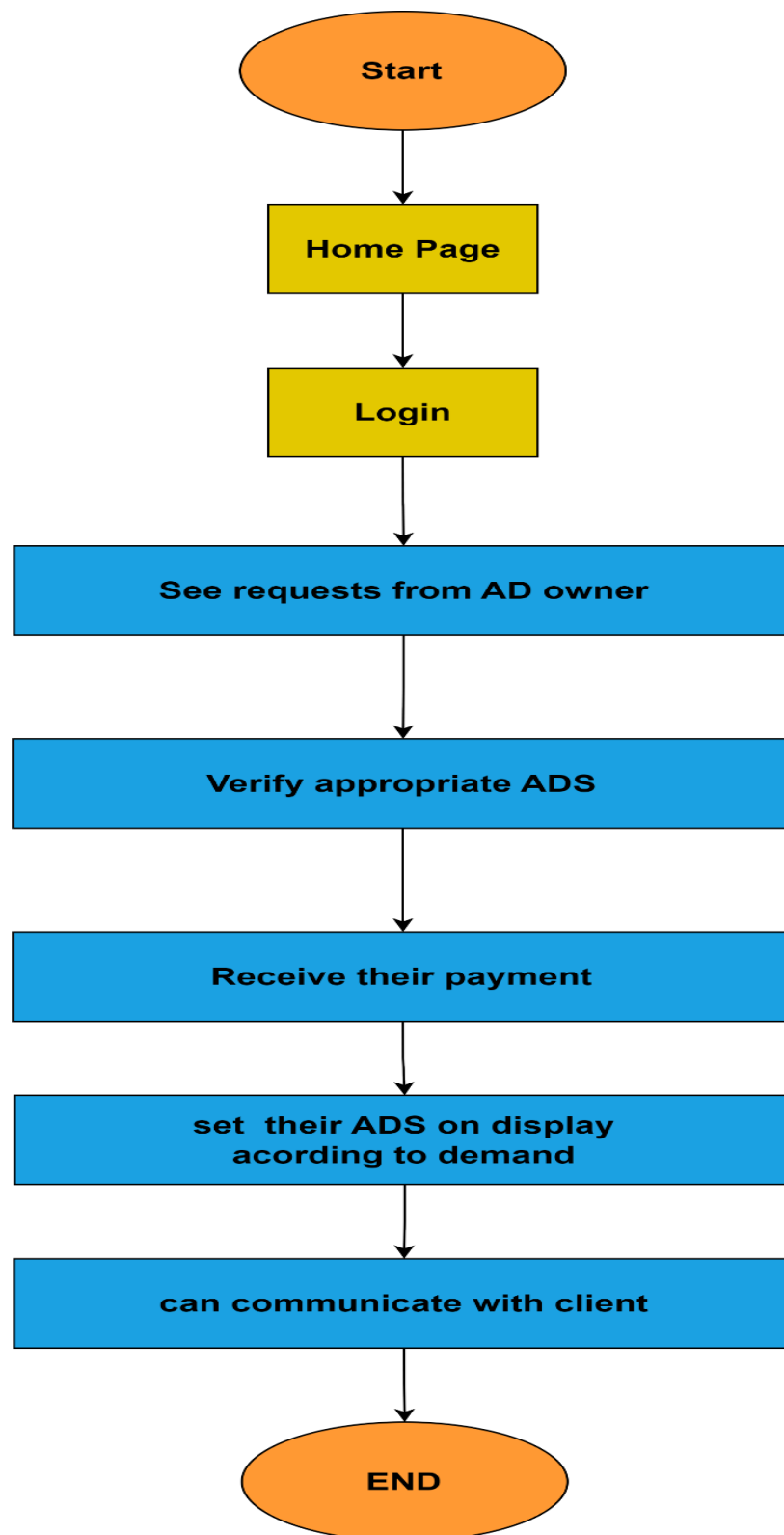


Fig 3.2.3 Admin side flowchart

### 3.3 ER DIAGRAM

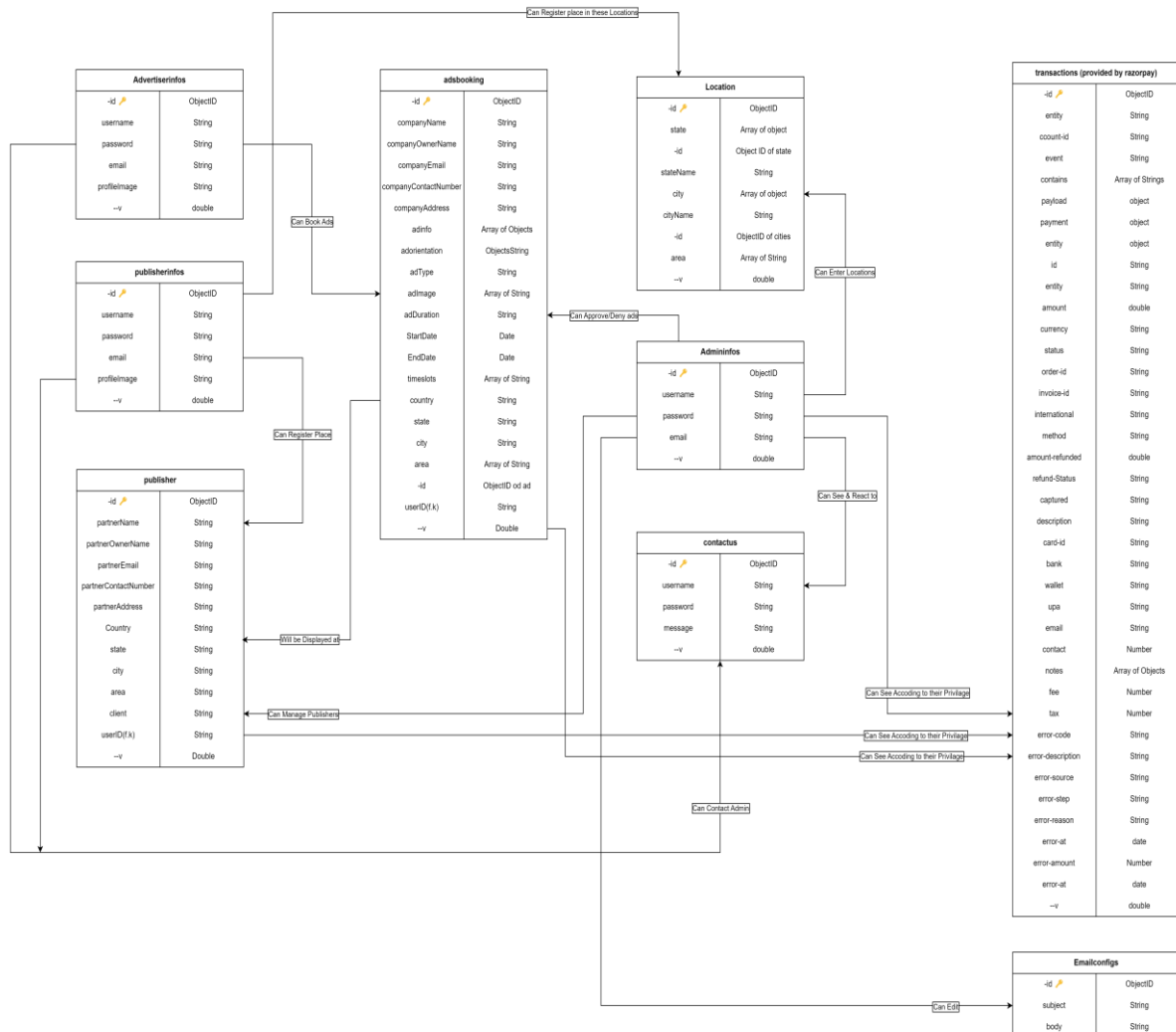
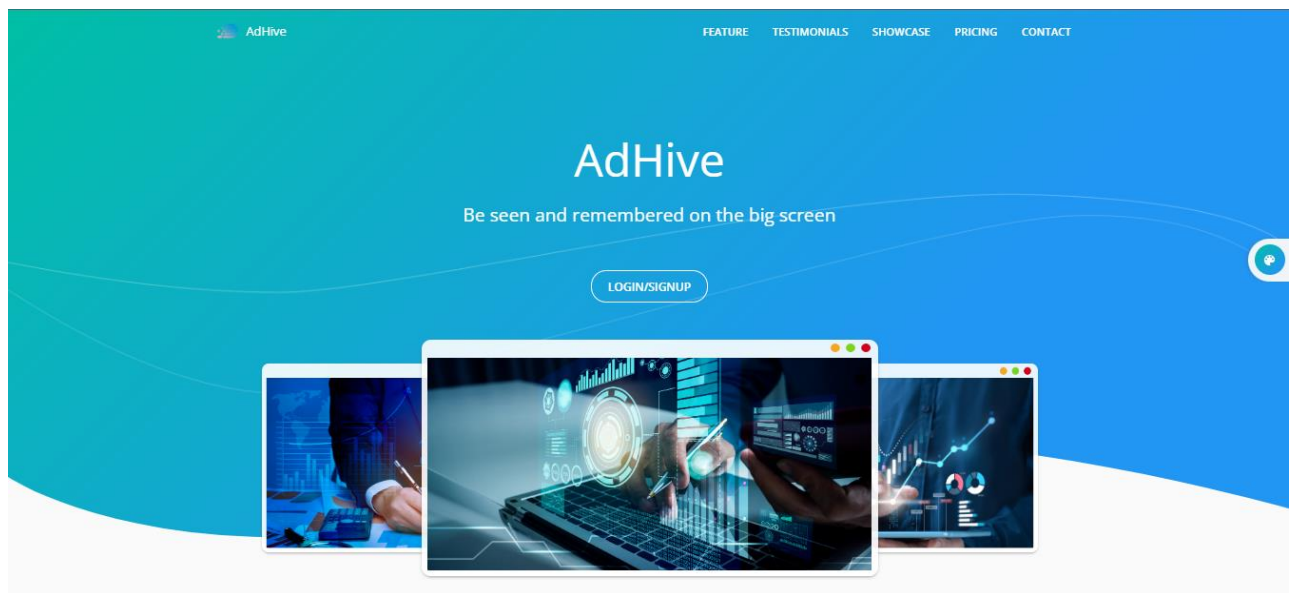


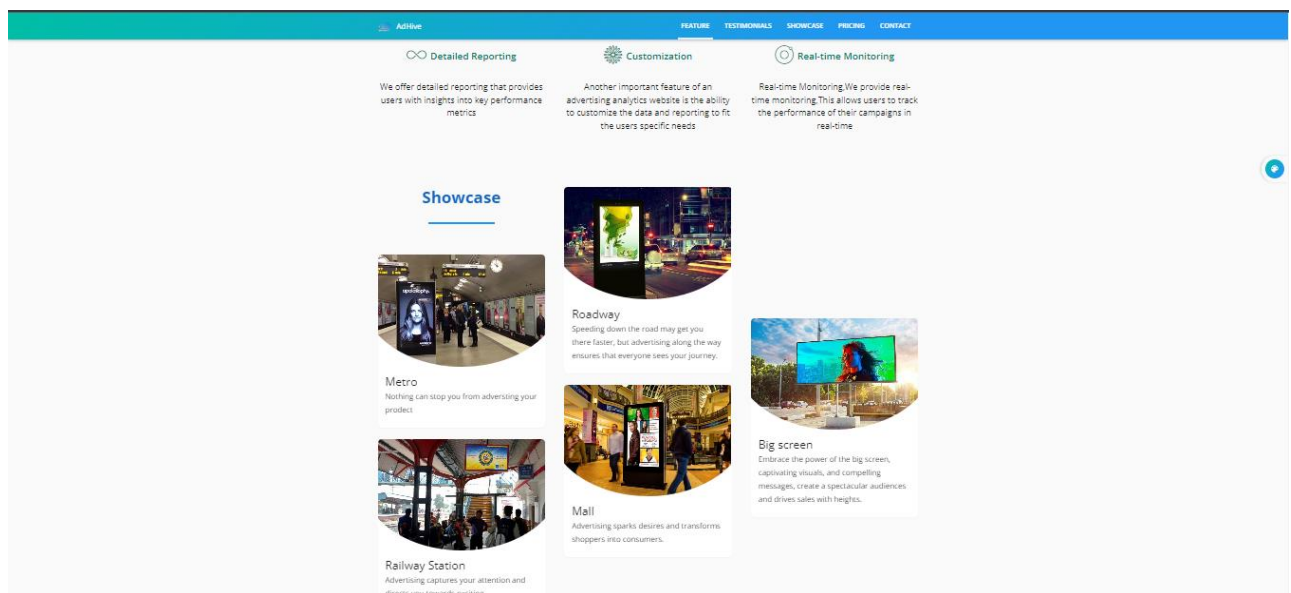
Fig 3.3.1 ER Diagram

## **CHAPTER – 4: IMPLEMENTATION SCREENSHOTS**

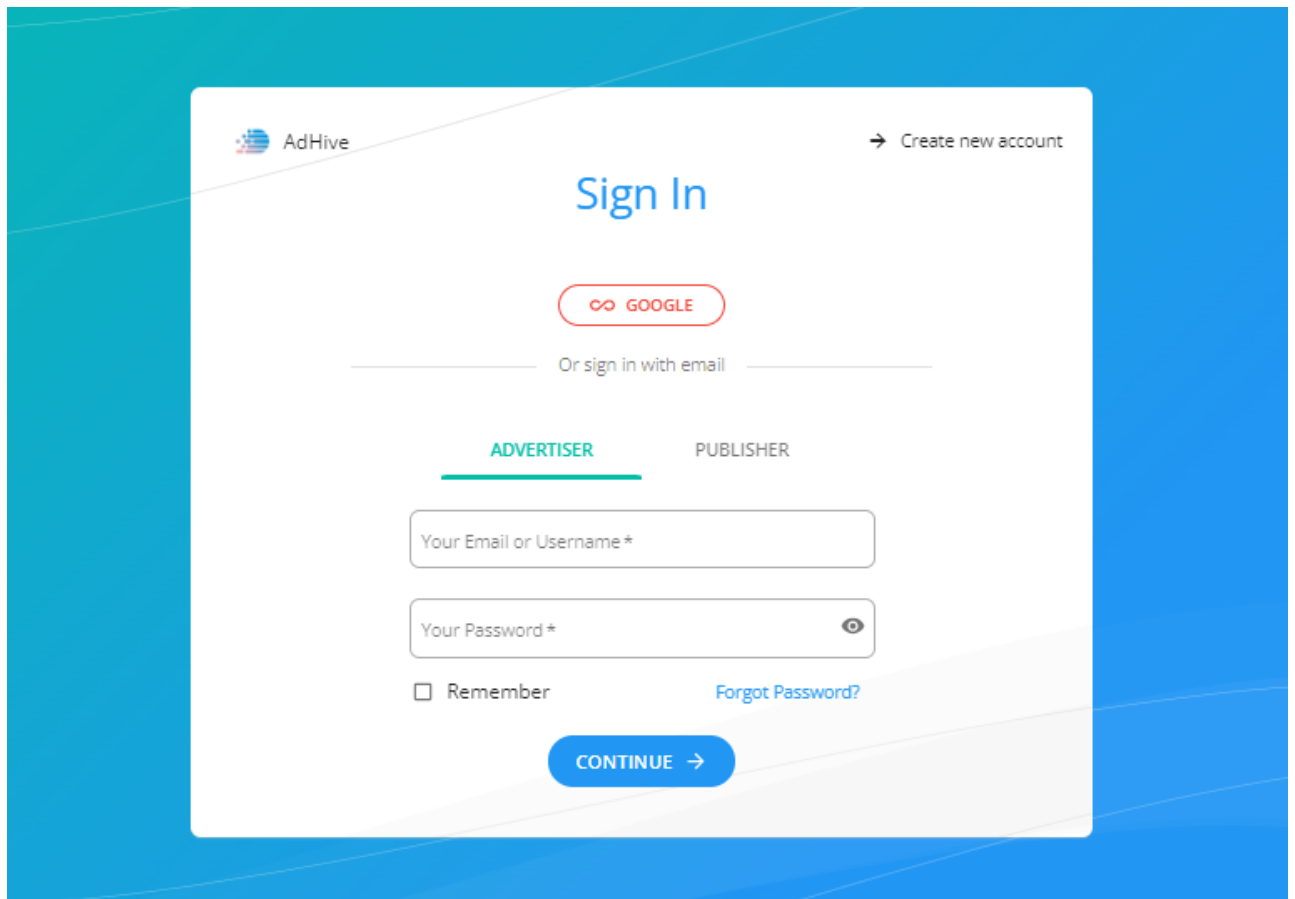
## 4.1 WEB APPLICATION (ADVERTISER AND PUBLISHER SIDE)



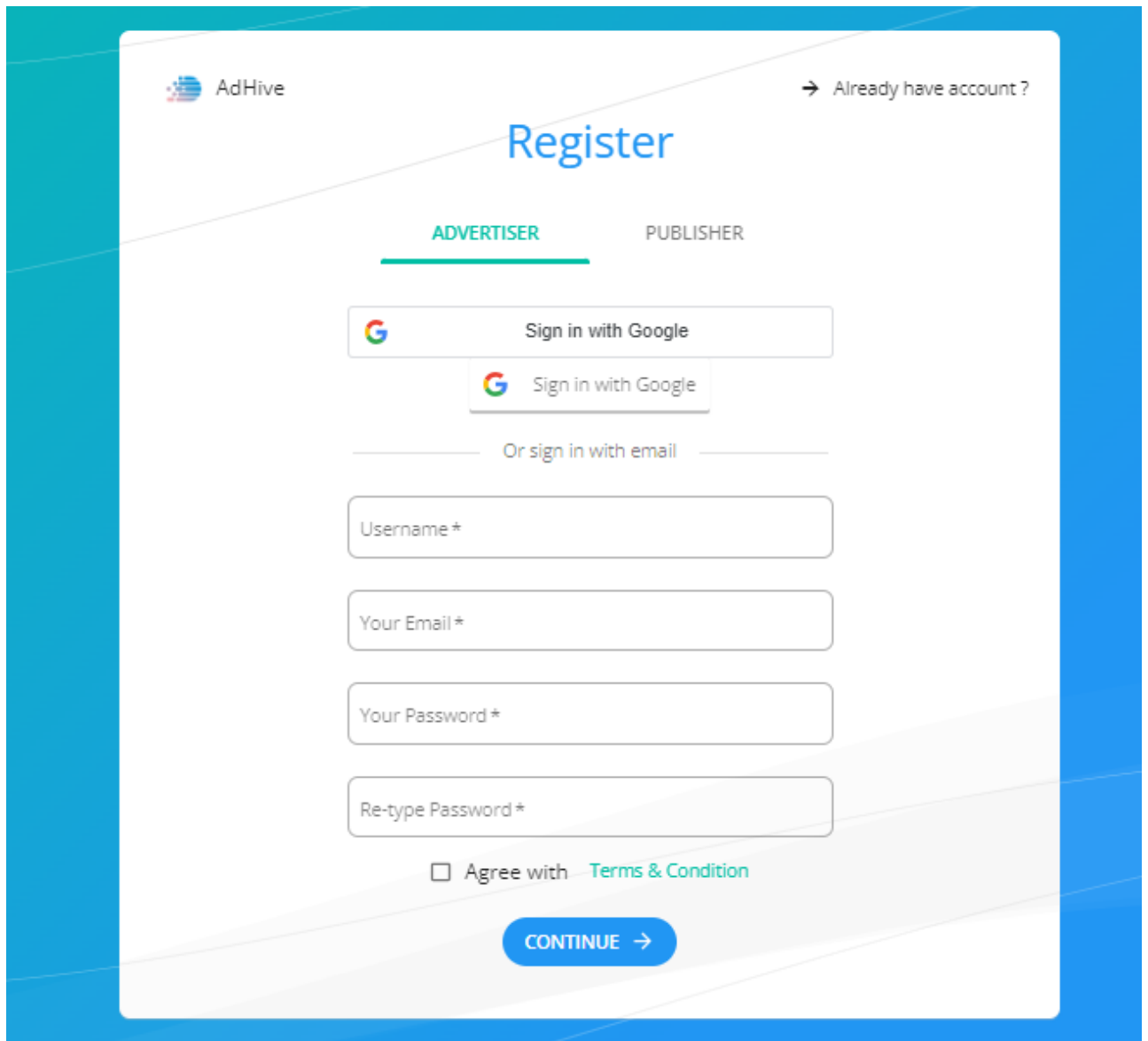
4.1.1.Home Screen



4.1.2 Home Screen



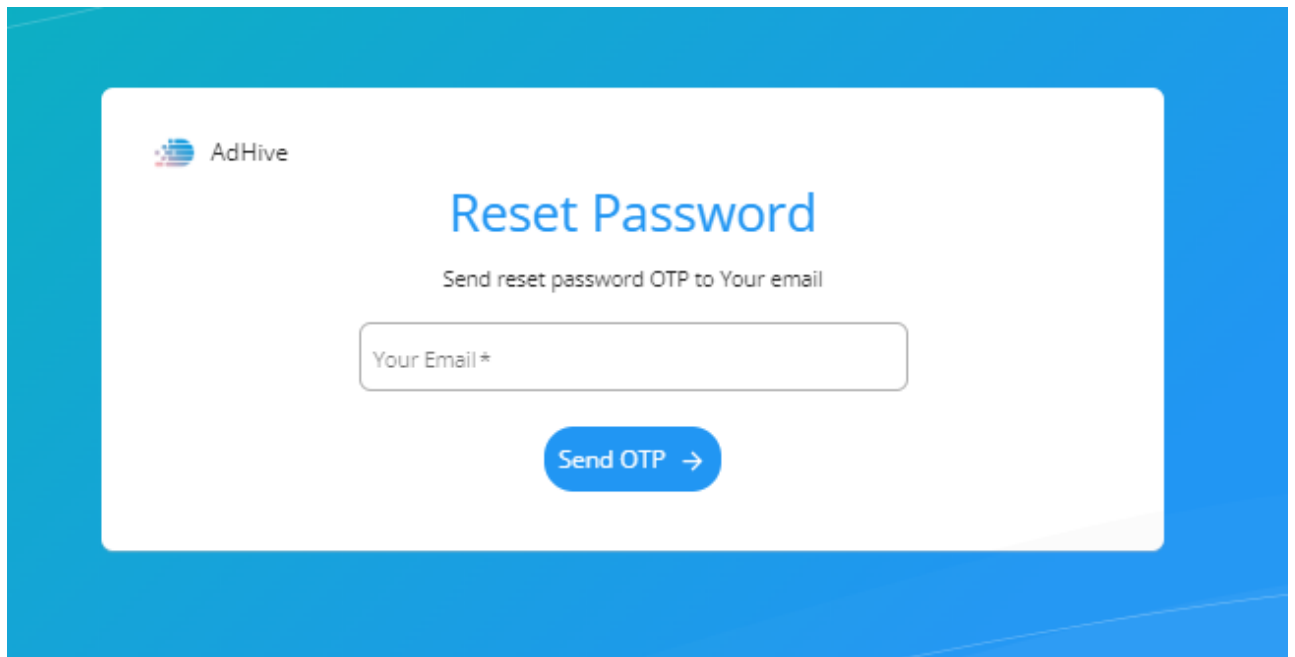
4.1.3 Login Screen



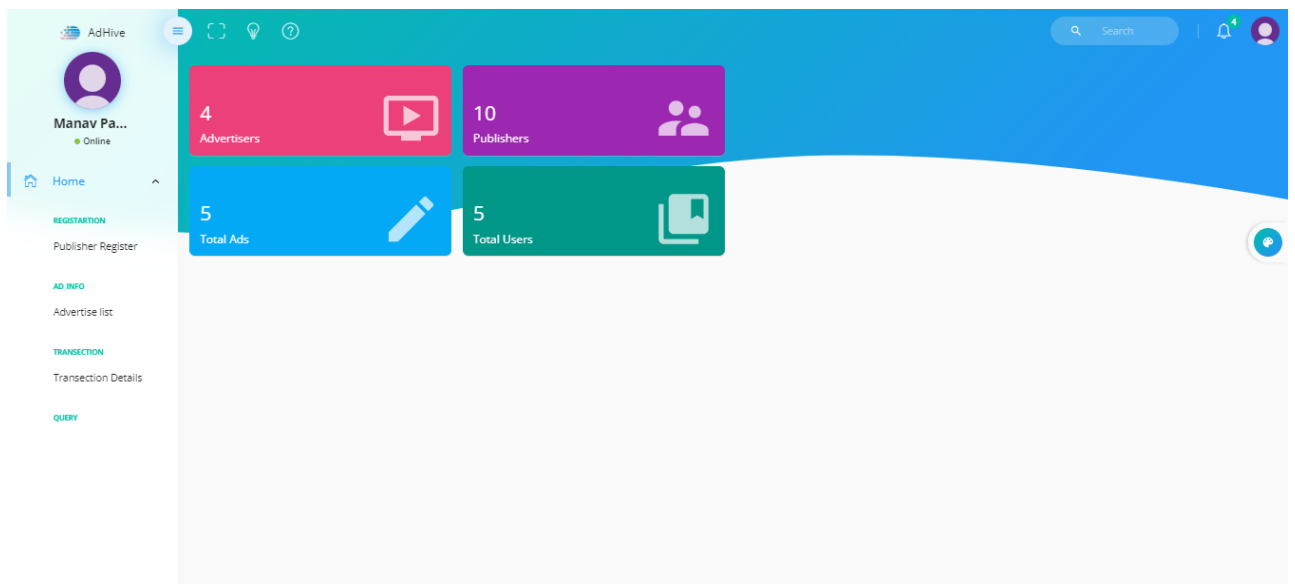
The screenshot shows the AdHive registration interface. At the top left is the AdHive logo. At the top right is a link "→ Already have account?". The main heading is "Register". Below it are two tabs: "ADVERTISER" (selected with a green underline) and "PUBLISHER". The registration options are: "Sign in with Google" (with a Google icon), "Or sign in with email", and four text input fields labeled "Username \*", "Your Email \*", "Your Password \*", and "Re-type Password \*". Below the inputs is a checkbox labeled "Agree with" followed by a link "Terms & Condition". At the bottom is a blue button labeled "CONTINUE →".

4.1.4 Signup Screen





4.1.5 Forget Password Screen



4.1.6 Dashboard Screen



## 4.1.7 Profile Screen

**AdHive**

## Publisher Registration

**Partner Details**

Partner Name

Partner Owner Name

Partner Email

Partner Contact Number

Partner Address

**Partner Address Details**

Country

State

City

Area

**Publisher Account details**

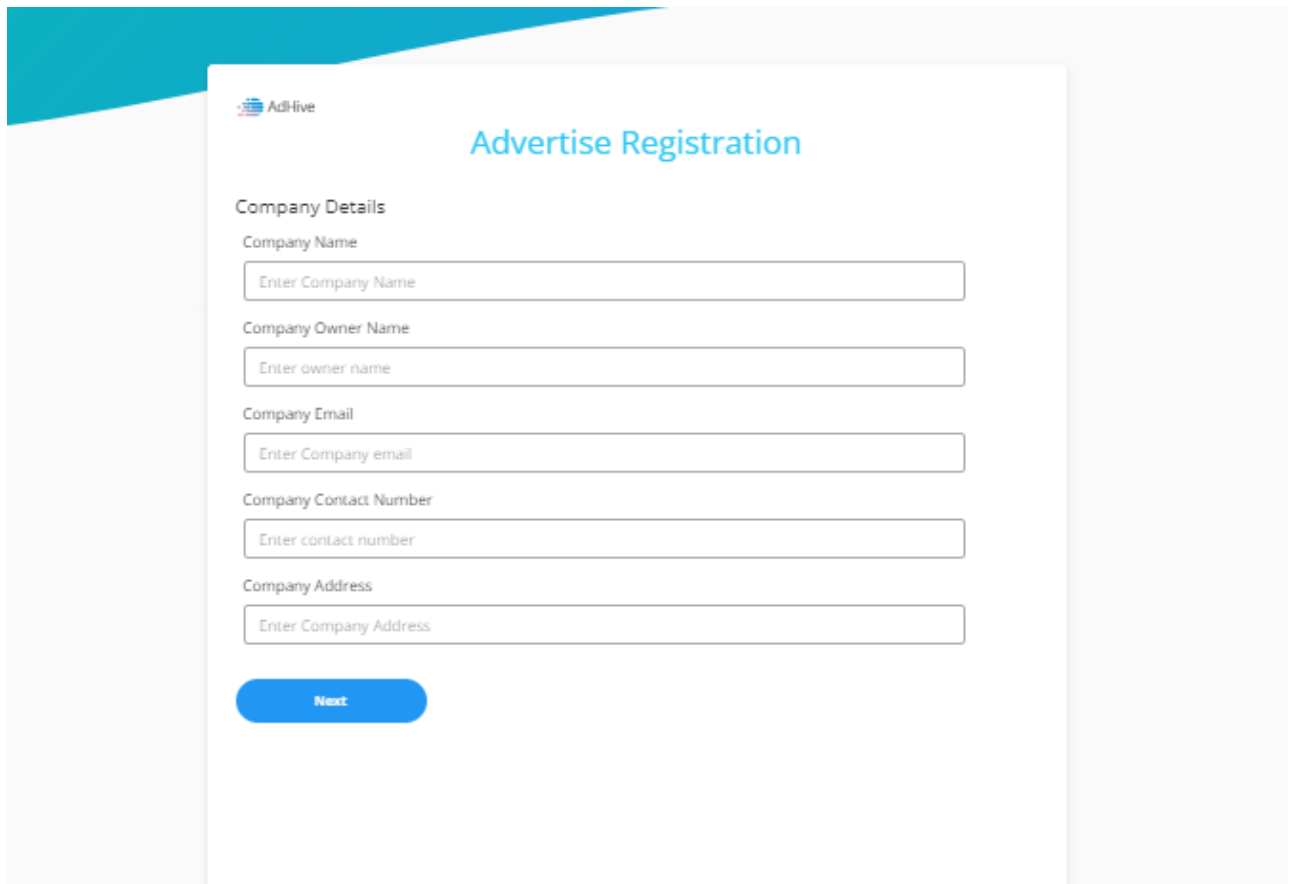
☐ UPI ID  
☐ Account Number

**Submit**

## 4.1.8 Registration screen for publisher

| Transaction ID | Date        | Amount | Status    |
|----------------|-------------|--------|-----------|
| 1              | 12 Sep 2018 | ₹5000  | Pending   |
| 2              | 1 Sep 2018  | ₹5000  | Cancelled |
| 3              | 27 Aug 2018 | ₹5000  | Complete  |
| 4              | 11 Aug 2011 | ₹5000  | Pending   |
| 5              | 11 Aug 2018 | ₹1000  | Complete  |

## 4.1.9 Transection History Page



The screenshot displays the 'Advertise Registration' form within the AdHive application. The form is titled 'Advertise Registration' in a blue font. It contains several input fields for company details, each with a placeholder text. A blue 'Next' button is located at the bottom of the form. The background of the application window is light gray, and the AdHive logo is visible in the top left corner of the form area.

**AdHive**

## Advertise Registration

**Company Details**

Company Name

Company Owner Name

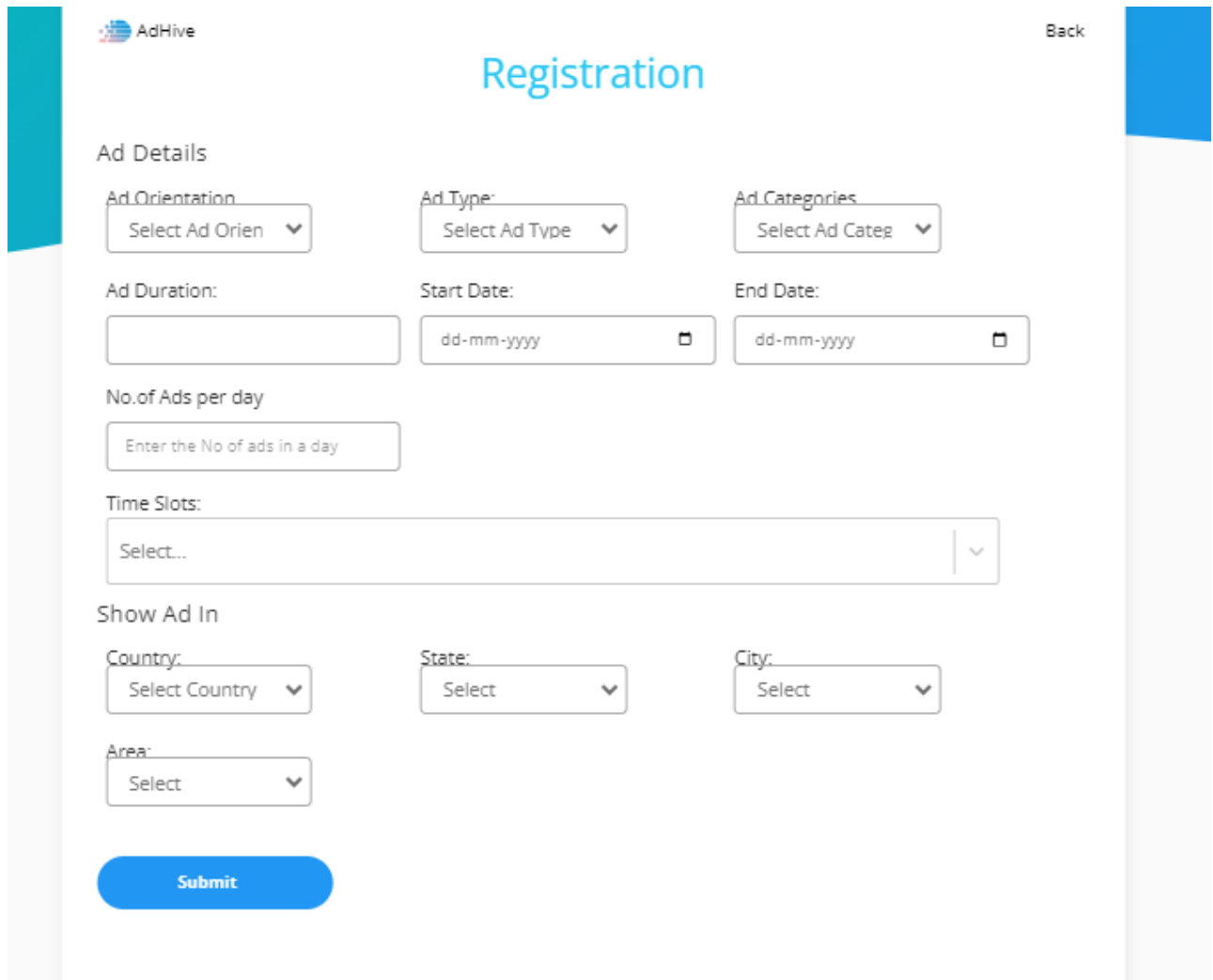
Company Email

Company Contact Number

Company Address

**Next**

4.2.10 Booking Ad Screen(1)



**AdHive** Back

## Registration

**Ad Details**

Ad Orientation:  Ad Type:  Ad Categories:

Ad Duration:  Start Date:  End Date:

No. of Ads per day:

Time Slots:

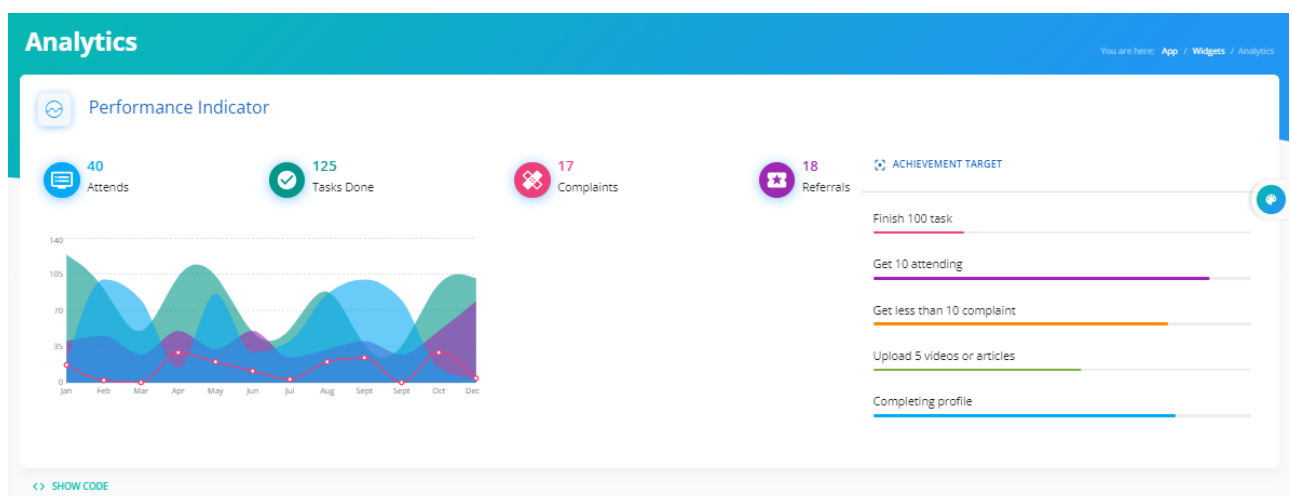
**Show Ad In**

Country:  State:  City:

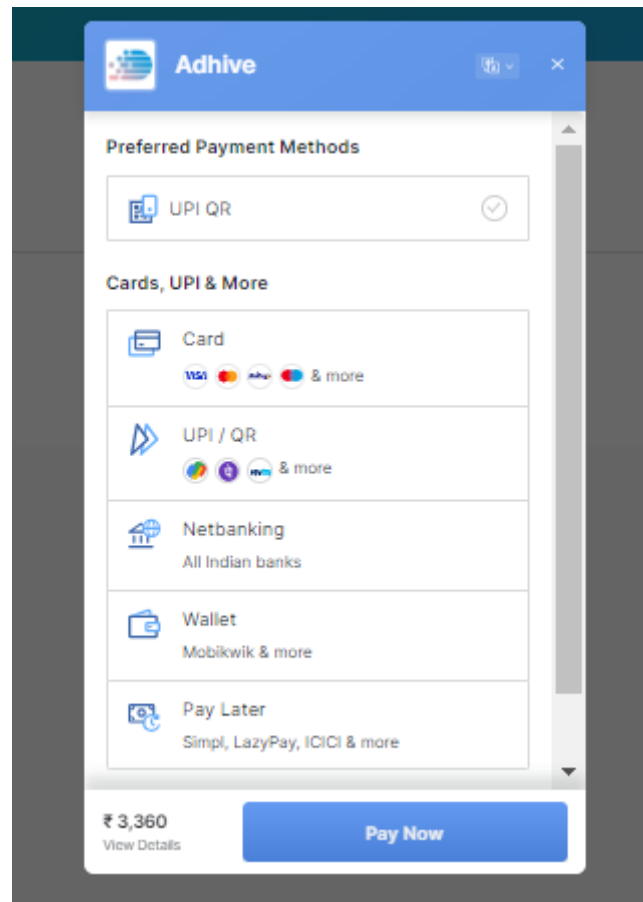
Area:

**Submit**

4.2.11 Booking Ad Screen(2)

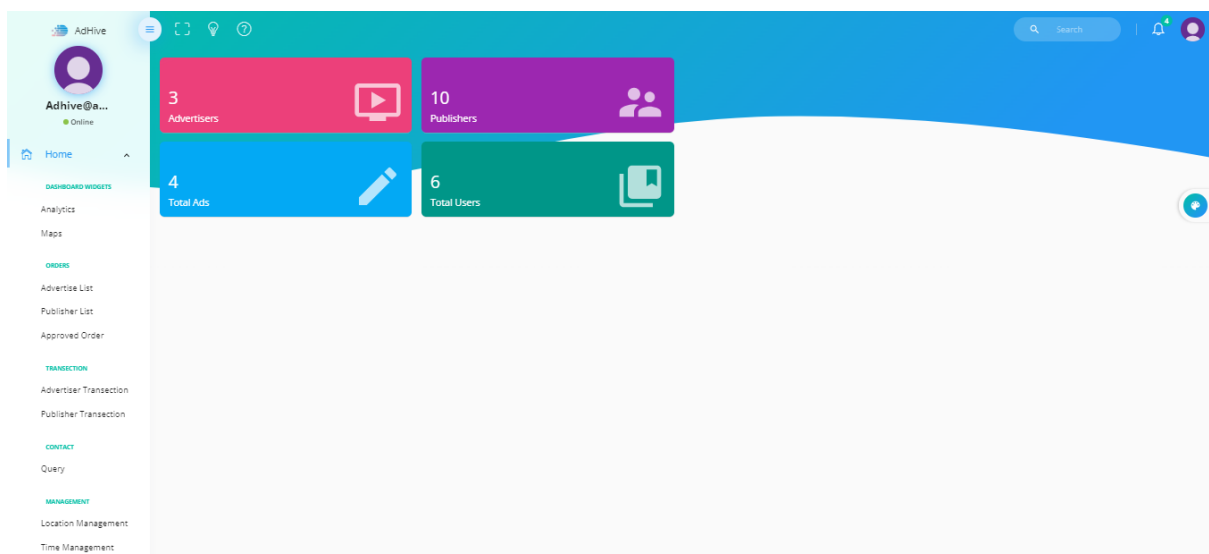


4.2.12 Analytic Screen



4.2.13 Payment Screen

## 4.2 WEB APPLICATION(ADMIN SIDE)



4.2.1 Admin Side Dashboard

## **CHAPTER – 5 TEST CASES**

## 5.1 TESTING STRATEGY

In this project unit testing was carried out and each section were tested one by one.

Module Name :- Login for Advertiser / Publisher :-

| Test case no | Test Scenario                                    | Pre - conditions            | Test Steps                  | Test Case                        | Test Data  | Expected Result   | Actual Result   | Post Condition                   | Status |
|--------------|--|-----------------------------|-----------------------------|----------------------------------|--|---|---|----------------------------------|--------|
| 1            | Enter the Registered Username/Email and Password | The user must be registered | Enter the all required data | All the entered values are valid | Enter the all required data with mandatory fields. | Display the Dashboard                                   | Display the successfully registered model               | Redirect to the dashboard module | Pass   |
|              |  |                             |                             | Any of the value is not valid    |  | Display the error messages according to the field       | Display the error messages according to the field       | Reload the login Module          | Pass   |
|              |  |                             |                             | Any of the value is not entered  |  | Display the error messages according to the empty field | Display the error messages according to the empty field | Reload the login Module          | Pass   |
| 2            | Forgot Password                                  | The user must be registered | Enter the registered        | Entered Email is valid and       | Enter all required values for test                 | Redirect to the OTP verification                        | Display the successfully                                | Display the successfully updated | Pass   |

|  |  |  |                  |  |  |   |                         |                      |                  |
|--|--|--|------------------|--|--|---|-------------------------|----------------------|------------------|
|  |  |  | email<br>address | registered   | cases  | on<br>module<br>and if<br>success<br>then<br>Display<br>the<br>model to<br>enter<br>new<br>password | updated<br>password     | password             |                  |
|  |  |  |                  | Entered<br>Email<br>is not<br>valid<br>and not<br>registered | Display<br>the error<br>message<br>to enter<br>valid<br>email<br>address | Display<br>the error<br>message<br>to enter<br>valid<br>phone<br>number                             | Reload<br>the<br>module | Reload the<br>module | P<br>a<br>s<br>s |

Table 5.1 Login for Advertiser / Publisher



Module Name :- Registration for Advertisers / Publishers

| Test case no | Test Scenario   | Pre - conditions  | Test Steps   | Test Case                        | Test Data  | Expected Result   | Actual Result   | Post Condition                   | Status |
|--------------|---|---|--|----------------------------------|--|---|---|----------------------------------|--------|
| 1            | Enter the proper username , valid email and a secure password which should be alphanumeric , <=8 characters and should contain atleast 1special character | The email must be a genuine and valid email , and the username should also be unique. | Enter the all required data with mandatory fields. | All the entered values are valid | Enter the all required data with mandatory fields. | Display the successfully registered model               | Display the successfully registered model               | Redirect to the dashboard module | Pass   |
|              |   |   |  | Any of the value is not valid    |  | Display the error messages according to the field       | Display the error messages according to the field       | Reload the registration Module   |        |
|              |   |   |  | Any of the value is not entered  |  | Display the error messages according to the empty field | Display the error messages according to the empty field | Reload the registration Module   | Pass   |

Table 5.2 Registration for Advertisers / Publishers

Module Name :- Advertiser Ad booking Form

| Test case no | Test Scenario  | Pre - conditions   | Test Steps   | Test Case                            | Test Data  | Expected Result   | Actual Result   | Post Condition                     | Status |
|--------------|--|--|--|--------------------------------------|--|---|---|------------------------------------|--------|
| 1            | Enter the Company name , owner name , company email , company contact number , company address | User (Advertiser) must be logged in with proper credentials. | Enter the all required data with mandatory fields. | All the values are entered properly. | Enter the all required data with mandatory fields. | Display the next module to get started with ad booking  | Display the next module to get started with ad booking<br>Display the error messages according to the field | Redirect to the ad booking module. | Pass   |
|              |  |  |  | Any of the value is not entered      |  | Display the error messages according to the empty field | Display the error messages according to the empty field   | Reload the module.                 | Pass   |

|   |  |  |  |                                      |  |  |  |                                 |      |
|---|--|--|--|--------------------------------------|--|--|--|---------------------------------|------|
| 2 | Enter all the ad details which includes ad orientation , ad type,ad category ,ad duration , start date , end date, number of ads per day, time slots , ad country, state,city and area | User must have provided his/her company details. | Enter the all required data with mandatory fields. | All the values are entered properly. | Enter the all required data with mandatory fields. | Display the checkout page and Proceed for payment. | Display the checkout page and Proceed for payment. | Redirected to the checkout page | Pass |
|   |  |  |  | Any of the value is not entered      |  | Display the error message according to empty field | Display the error message according to empty field | Reload the ad booking module    |      |

### 5.3 Advertiser Ad booking Form

Module Name :- Publisher Registration for LED screen

| Test case no | Test Scenario   | Pre - conditions  | Test Steps   | Test Case                            | Test Data  | Expected Result  | Actual Result  | Post Condition               | Status |
|--------------|---|---|--|--------------------------------------|--|--|--|------------------------------|--------|
| 1            | Enter all the details which includes Partner name,owner name,email,contact number,address,country,state,city,area,and payment details either upi id or account number | User (publisher) must be logged in with proper credentials. | Enter the all required data with mandatory fields. | All the values are entered properly. | Enter the all required data with mandatory fields. | Display the next module which indicates successful registration. | Display the next module which indicates successful registration. | Redirect to the next module. | Pass   |
|              |   |   |  | Any of the value is not entered      |  | Display the error messages according to the empty field          | Display the error messages according to the empty field          | Reload the module.           | Pass   |

Table 5.4 :- Publisher Registration for LED screen

## **CHAPTER – 6: LIMITATIONS AND FUTURE ENHANCEMENTS**

## 6.1 LIMITATIONS

One limitation of this web application is the inability to display live tracking of ad displays on maps. Due to technical constraints, the application cannot provide real-time location updates of the running ads. Instead, it provides static information about the targeted locations and the number of ads running. However, the application compensates for this limitation by offering other features such as campaign analytics and performance metrics to help clients assess the effectiveness of their ad campaigns.

## 6.2 FUTURE ENHANCEMENTS

In future enhancements, there are several areas where the web application can be improved to enhance its functionality and provide a better user experience. Firstly, incorporating live tracking and mapping capabilities would be valuable. By integrating geolocation tracking, clients would be able to view real-time updates on the location of their ad displays. This feature would enable them to monitor the reach and effectiveness of their ad campaigns in different areas, providing valuable insights for optimizing their targeting strategies. Additionally, developing an interactive dashboard and reporting system would empower clients with more comprehensive analytics. The dashboard can provide visualizations and advanced reporting features, allowing clients to easily analyze the performance of their ad campaigns. They would gain deeper insights into metrics such as impressions, click-through rates, and engagement, enabling them to make data-driven decisions to improve their advertising efforts.

## **CHAPTER – 7: CONCLUSION**

## CONCLUSION

In conclusion, the future enhancements planned for the web application will significantly improve its capabilities and provide a more comprehensive and user-friendly experience for clients. The inclusion of live tracking and mapping features will offer real-time insights into the location-based performance of ad displays. The interactive dashboard and advanced reporting system will empower clients to make data-driven decisions and optimize their advertising campaigns. Integration with social media platforms will expand reach and targeting options. Overall, these enhancements will elevate the web application's effectiveness in helping businesses maximize the impact of their digital advertising efforts.



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