BIKE RENTAL WEBSITE

A MINI-PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this mini project **"BIKE RENTAL WEBSITE**" is the bonafide work of "**AJAY KRISHNAN (2116220701018)",**"**ASHWIN A(2116220701033)"** who carried out the project work under my supervision.

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

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Ajay Krishnan (2116220701018)

Ashwin A (2116220701033)

ABSTRACT

The **Bike Rental System** is an innovative solution designed to streamline the process of renting bicycles, catering to the growing demand for eco-friendly and efficient transportation. This system provides a user-friendly platform that enables customers to browse, select, and rent bikes effortlessly.The primary objective of the project is to create an online interface that offers real-time availability updates, secure booking options, and an intuitive user experience. Key features include account management, a search function to find nearby rental locations, payment integration, and an administrative panel to monitor inventory and manage bookings.The system is aimed at promoting sustainable urban mobility while addressing the challenges of manual bike rental operations. By leveraging web technologies, it enhances operational efficiency, reduces overhead costs, and provides a seamless experience for both customers and administrators.This project demonstrates the potential of digital transformation in supporting environmental sustainability and meeting modern transportation needs.

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CHAPTER 1

1.1 INTRODUCTION

The **Bike Rental System** is a web-based platform designed to simplify and digitize the process of renting bicycles. It offers users a convenient way to browse available bikes, make reservations, and manage payments online. The system promotes eco-friendly transportation by encouraging bike usage for daily commutes and leisure activities. With a focus on usability and efficiency, it enhances the rental experience for customers and streamlines operations for service providers.

1.2 SCOPE OF THE WORK

The **Bike Rental System** has a broad scope, encompassing seamless bike rentals for urban commuters, tourists, and recreational users. It supports real-time bike availability updates, secure payment integration, and location-based search for convenience. The system caters to both customers and administrators, enhancing operational efficiency and user satisfaction. Its scalable architecture allows for future expansion to include features like subscription plans, GPS tracking, and integration with public transportation systems.

1.3 PROBLEM STATEMENT

The current manual processes in bike rental services are inefficient, leading to challenges such as inaccurate availability tracking, delays in booking, and lack of secure payment options. Customers face inconvenience in locating rental stations and managing reservations, while service providers struggle with inventory management and operational inefficiencies. The **Bike Rental System** addresses these issues by providing a digital platform that streamlines bike rentals, enhances user experience, and optimizes administrative workflows, promoting sustainable transportation solutions.

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1.4 AIM AND OBJECTIVES OF THE PROJECT

Aim: The aim of the **Bike Rental System** project is to develop a comprehensive, user-friendly web-based platform that facilitates efficient and secure bicycle rentals. The system seeks to enhance the overall rental experience for customers while optimizing operational workflows for service providers, thereby promoting sustainable and eco-friendly transportation solutions.

Objectives:

User-Friendly Interface Development:

1. Design and implement an intuitive and responsive user interface that allows customers to easily browse available bikes, make reservations, and complete payments online.

Real-Time Availability and Location-Based Search:

1. Integrate real-time tracking of bike availability and incorporate location-based search functionalities to help users find nearby rental stations and available bicycles effortlessly.

Secure Payment and User Authentication:

1. Implement secure payment gateways and robust user authentication mechanisms to ensure the protection of user data and secure transaction processing.

Administrative Management Tools:

1. Develop an administrative dashboard that enables service providers to efficiently manage inventory, monitor bookings, generate reports, and oversee overall system operations.

Scalability and Future Enhancements:

1. Design the system architecture to be scalable, allowing for future enhancements such as subscription plans, GPS tracking for bikes, and integration with public transportation systems to expand the system's capabilities and reach.

Promote Sustainable Transportation:

1. Encourage the use of eco-friendly transportation by making bike rentals more accessible and convenient for urban commuters, tourists, and recreational users, thereby contributing to environmental sustainability.

By achieving these objectives, the Bike Rental System project aims to deliver a reliable and efficient solution that meets the needs of both users and service providers, fostering a sustainable and user-centric bike rental ecosystem.

CHAPTER 2

SYSTEM SPECIFICATIONS

2.1 HARDWARE SPECIFICATIONS

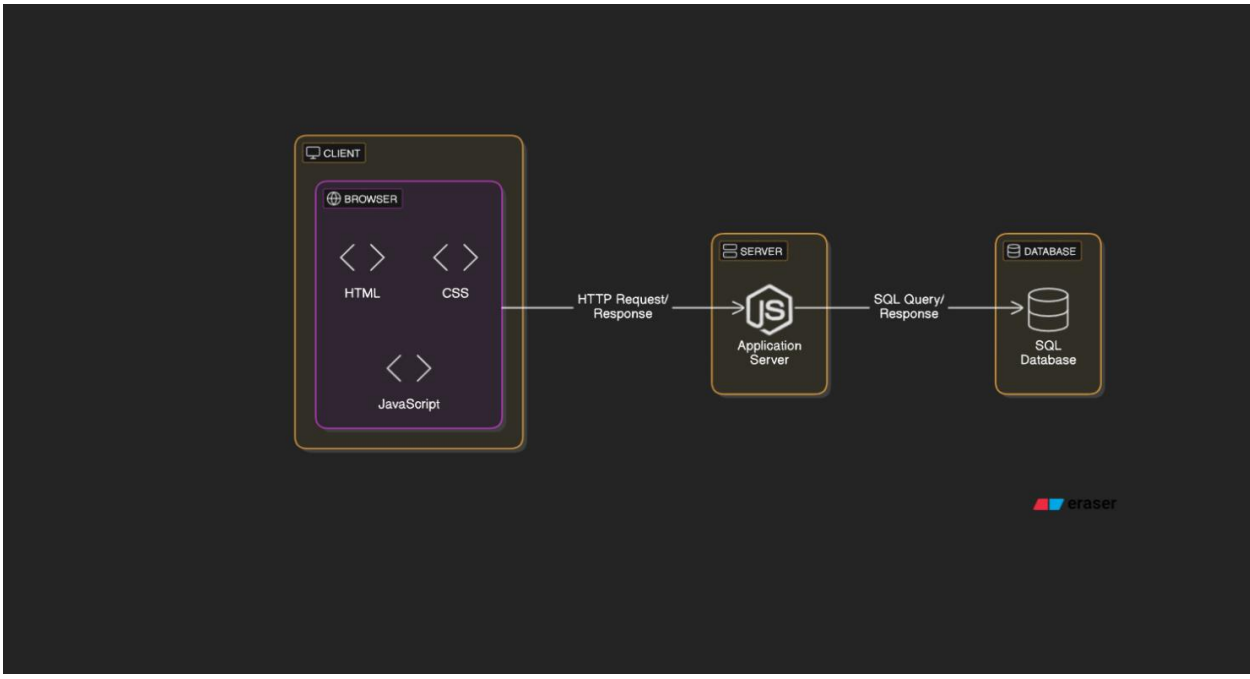
Processor	:	Pentium IV Or Higher
Memory Size	:	128 GB (Minimum)
HDD	:	40 GB (Minimum)

2.2 SOFTWARE SPECIFICATIONS

Operating System	:	WINDOWS 7 AND PLUS
Front – End	:	HTML, CSS, JAVASCRIPT
Back – End	:	PHP, MYSQL

CHAPTER 3

ARCHITECTURE DIAGRAM



CHAPTER 4

MODULE DESCRIPTION

4.1. User Registration and Login Module:

The **User Registration and Login Module** for the Bike Rental System enables users to create accounts and securely access the platform. The registration process includes a user-friendly form where new users provide details such as their full name, email address, password, and optional contact information. Client-side and server-side validations ensure that data is accurate and unique, with secure password handling using hashing algorithms. Optionally, users can receive a confirmation email to verify their accounts before activation.

4.2. Product Module:

The **Product Module** in the Bike Rental System manages the inventory of available bicycles, allowing administrators to add, update, or remove bike details such as type, availability, and pricing. It provides users with real-time access to browse and select bikes based on their preferences.

4.3. About Module:

This module provides basic information about our website, it has all the contents and the creator details.

4.4. Shopping cart module:

Allows users to add, remove, and modify products in their cart. Supports real-time price updates, discount calculations, and multi-item management.

4.5. Payment gateway module:

Manages secure payment processing, supporting various payment methods like credit/debit cards, digital wallets, and net banking. Includes encryption and fraud detection mechanisms.

4.6. Admin Dashboard Module:

The Admin Dashboard module provides the website's admin with complete control over the website's content and user management. The module allows the admin to add products, categories, and brands. The admin can also view products, user details, manage orders, and track the website's performance.

4.7. Customer support module:

Includes features like chatbots,FAQ’s,customer support through calls which enhances the rating of the website because customer support is the most important.

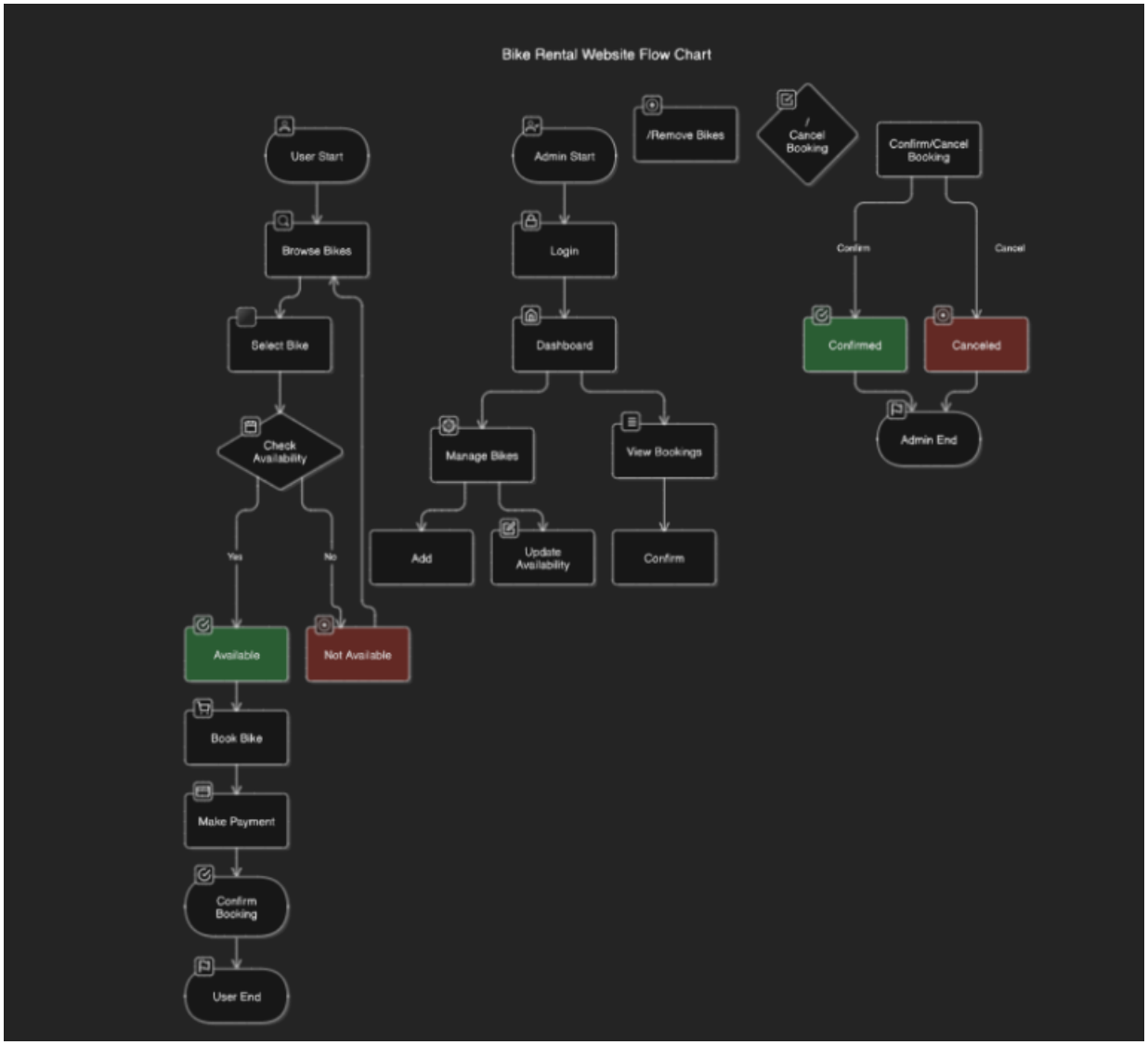
4.8. Review and rating module:

One of the most important modules in a e-commerce website because it helps the user to interact with other users without actually interacting with them to gain more knowledge about the product which they are going to buy.

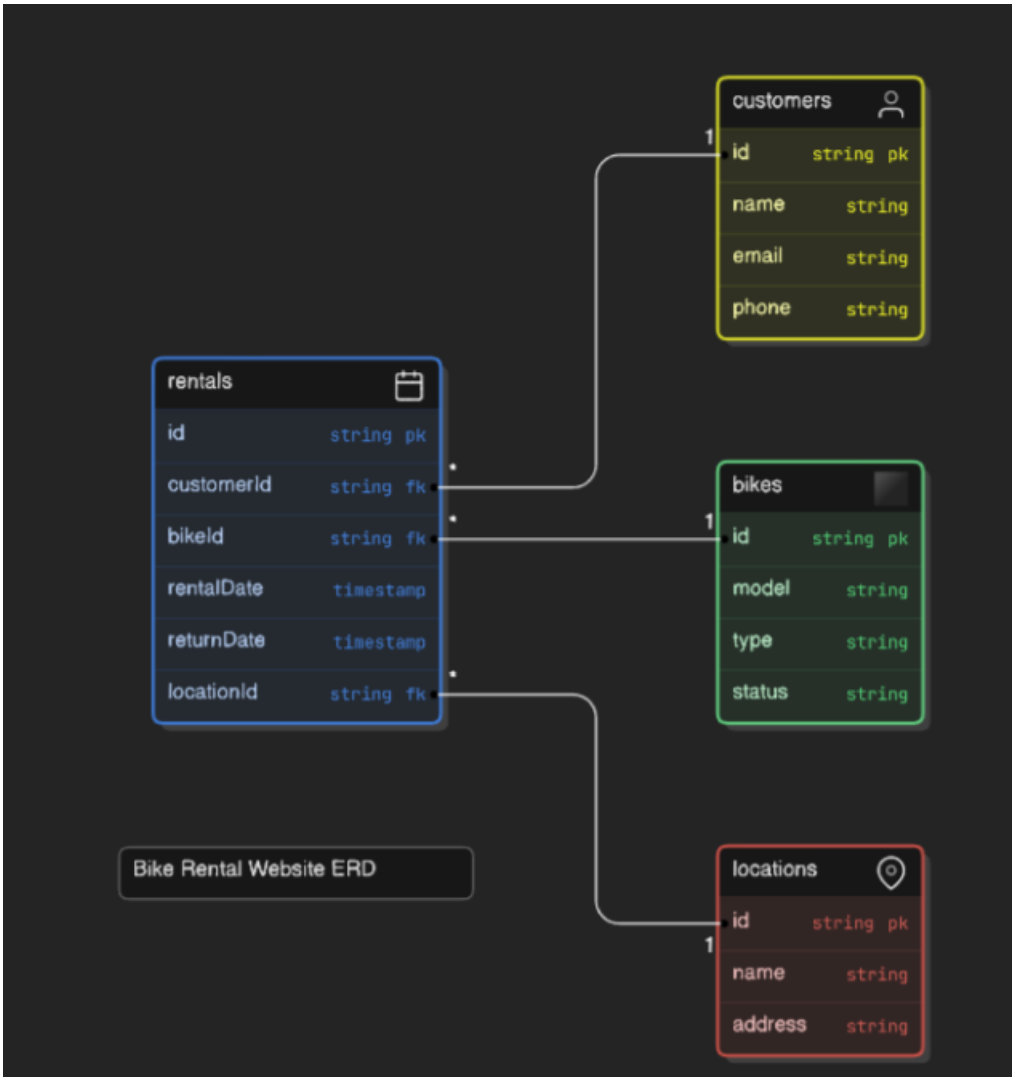
CHAPTER 5

SYSTEM DESIGN

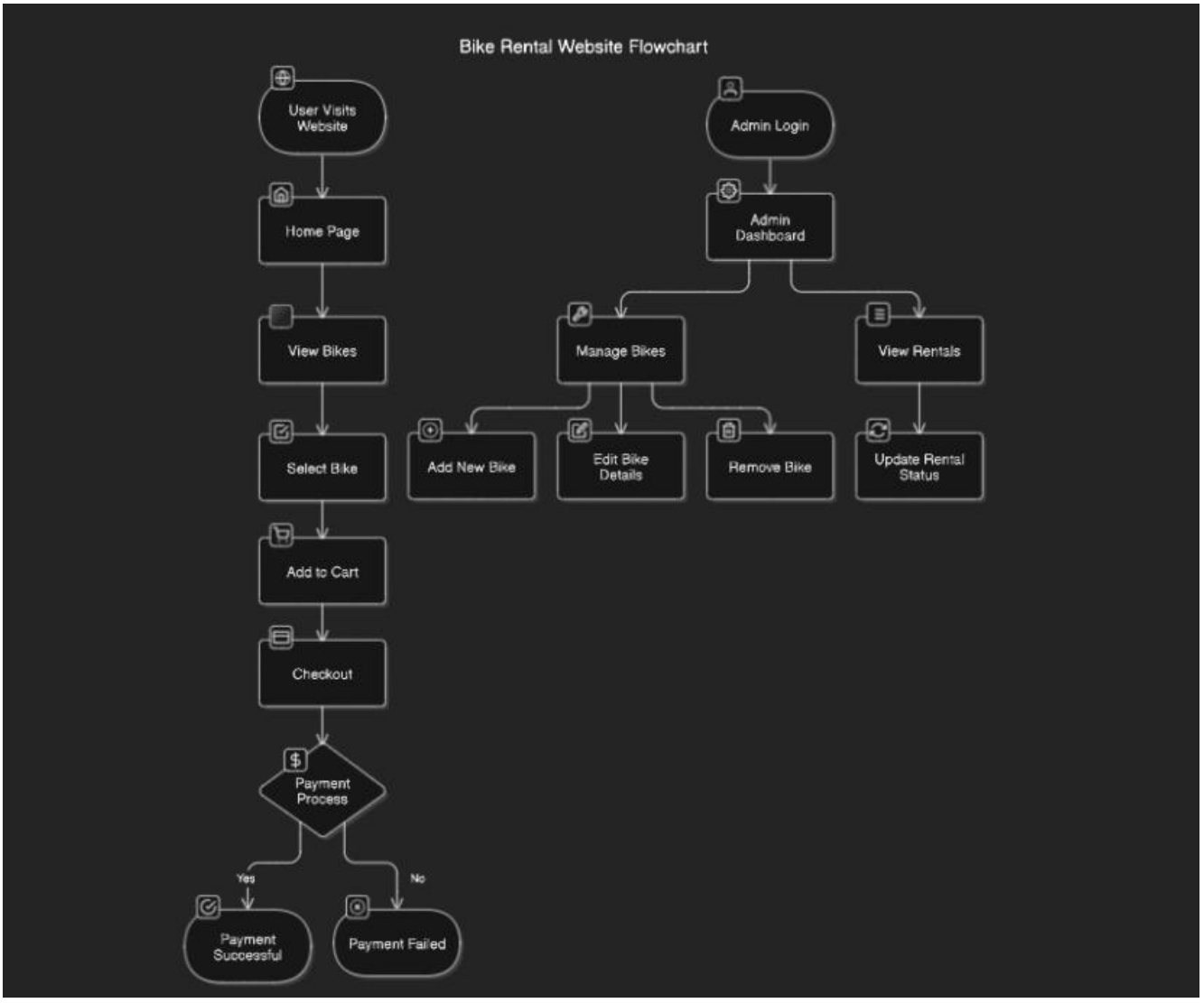
5.1 USE CASE DIAGRAM



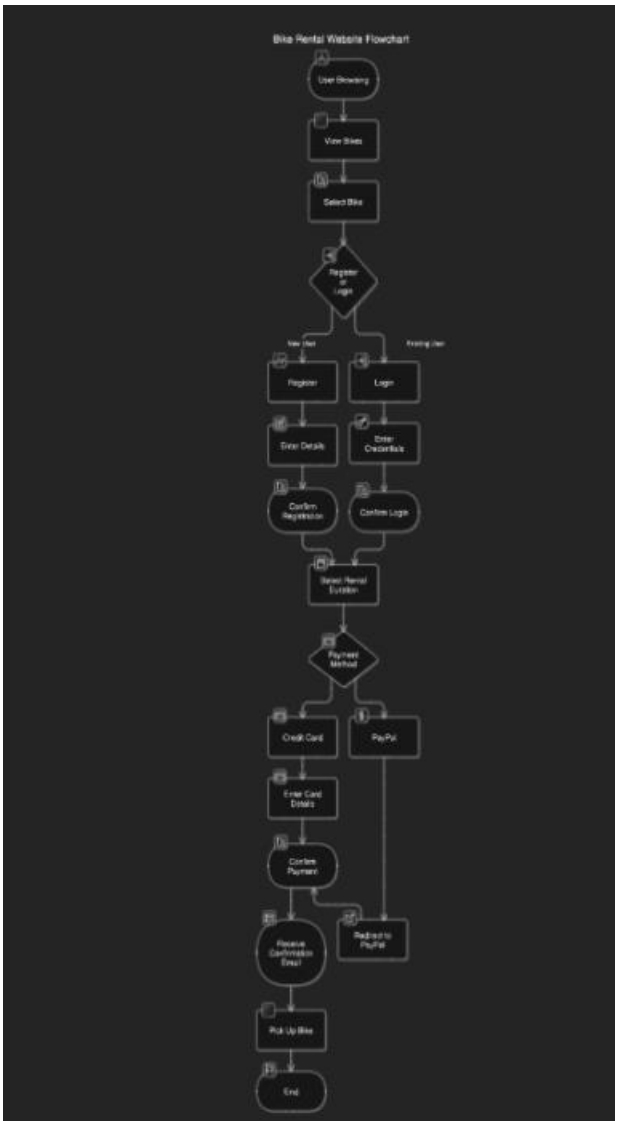
5.2 ER DIAGRAM



5.3 DFD DIAGRAM



5.4 ACTIVITY DIAGRAM



CHAPTER 6

SAMPLE CODING

Index.php

```
<?php
session_start();
error_reporting(0);
include('includes/dbconnection.php');
?>
<!doctype html>
<html>
<head>
<title>KSA || Home Page</title>
<script type="application/x-javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrollTo(0,1); } </script>
<!--bootstrap-->
<link href="css/bootstrap.css" rel="stylesheet" type="text/css" media="all">
<!--coustom css-->
<link href="css/style.css" rel="stylesheet" type="text/css"/>
<!--script-->
<script src="js/jquery-1.11.0.min.js"></script>
<!-- js -->
<script src="js/bootstrap.js"></script>
<!-- /js -->
<!--fonts-->
<link href='//fonts.googleapis.com/css?family=Open+Sans:300,300italic,400italic,400,600,600italic,700,700italic,800,800italic' rel='stylesheet' type='text/css'>
<!--/fonts-->
<!--hover-girds-->
<link rel="stylesheet" type="text/css" href="css/default.css" />
<link rel="stylesheet" type="text/css" href="css/component.css" />
<script src="js/modernizr.custom.js"></script>
<!--/hover-grids-->
<script type="text/javascript" src="js/move-top.js"></script>
<script type="text/javascript" src="js/easing.js"></script>
<!--script-->
<script type="text/javascript">
                        jQuery(document).ready(function($) {
                                $(".scroll").click(function(event){
                                        event.preventDefault();
                                        $('html,body').animate({scrollTop:$(this.hash).offset().top},900);
                                });
                        });
</script>
<!--/script-->
</head>
        <body>
<?php include_once('includes/header.php');?>
<div class="banner" style="background-image:url('images/shobi.jpg')">
```

```
  <div class="container">
  <script src="js/responsiveslides.min.js"></script>
<script>
    $(function () {
      $("#slider").responsiveSlides({
        auto: true,
        nav: true,
        speed: 500,
        namespace: "callbacks",
        pager: true,
      });
    });
  </script>
<div class="slider">
       <div class="callbacks_container">
        <ul class="rslides" id="slider">
         <li>
          <h3>KSA College of Technology</h3>
           <p>Registered Students can Login Here</p>
          <div class="readmore">
          <a href="user/login.php">Student Login<i class="glyphicon glyphicon-menu-right"> </i></a>
          </div>
         </li>



        </ul>
       </div>
    </div>
</div>
  </div>
<div class="welcome">
          <div class="container">
                    <?php
$sql="SELECT * from tblpage where PageType='aboutus'";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);

$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $row)
{               ?>
                    <h2><?php  echo htmlentities($row->PageTitle);?></h2>
                    <p><?php  echo ($row->PageDescription);?></p><?php $cnt=$cnt+1;}} ?>
          </div>
</div>
<!--/welcome-->



<!--testmonials-->
<div class="testimonials">
          <div class="container">
```

```
<div class="testimonial-nfo">
      <h3>Public Notices</h3>

    <marquee  style="height:350px;" direction ="up" onmouseover="this.stop();"
onmouseout="this.start();">
                                    <?php
$sql="SELECT * from tblpublicnotice";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);

$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $row)
{               ?>


                    <a href="view-public-notice.php?viewid=<?php echo htmlentities ($row->ID);?>"
target="_blank" style="color:#fff;">
        <?php  echo htmlentities($row->NoticeTitle);?>(<?php  echo htmlentities($row->CreationDate);?>)</a>
        <hr /><br />

                                <?php $cnt=$cnt+1;}} ?>
          </marquee></div>
          </div>
</div>
<!--\testmonials-->
<!--specfication-->

<!--/specfication-->
<?php include_once('includes/footer.php');?>
<!--/copy-rights-->
          </body>
</html>
```

CHAPTER 7

SCREEN SHOTS

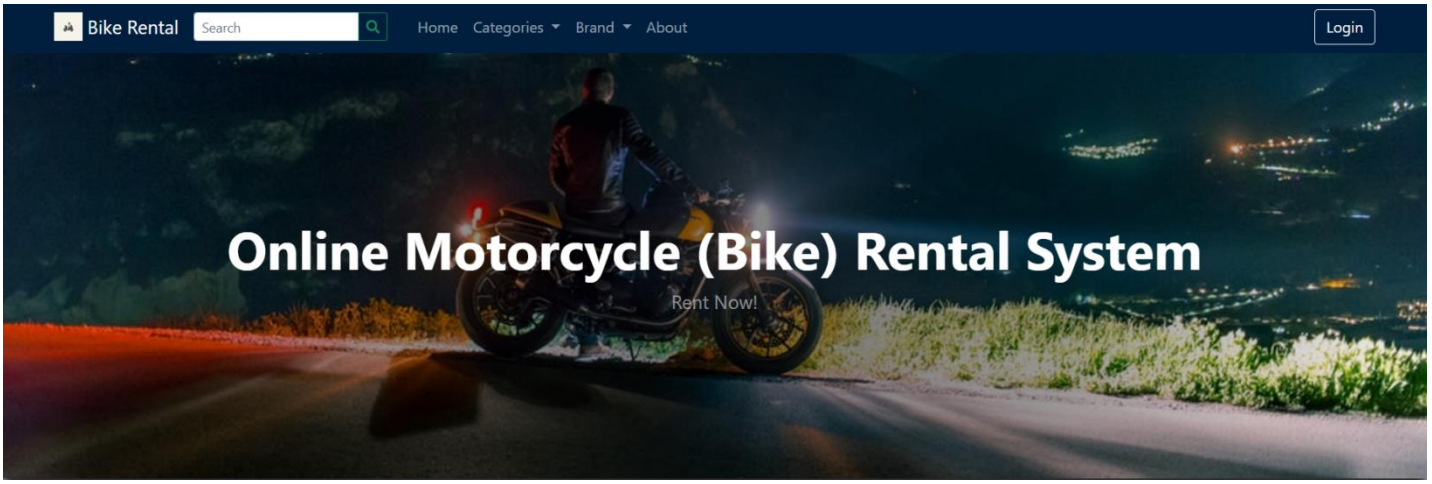
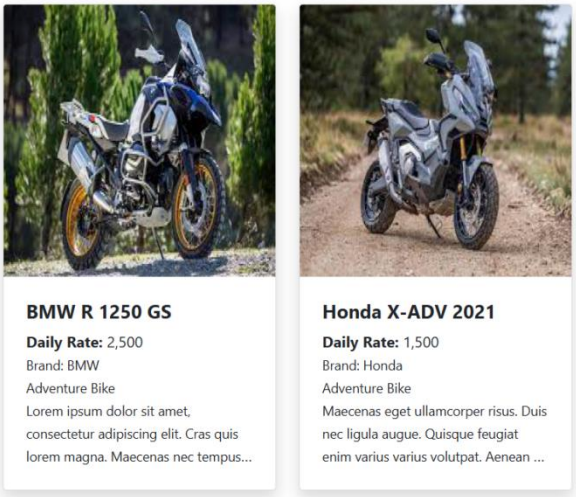


Fig. 7.1. Home Page



Search Category Here

Adventure Bike

Adventure Bike Category

Scooter

Sample Description

Sports Bike

Sports Bike Category

Touring Bike

Touring Bike Category

CHAPTER 8

CONCLUSION

In conclusion, the **Bike Rental System** serves as an innovative and practical solution for modernizing bike rental services. By digitizing the rental process, it provides users with a seamless experience, offering features such as real-time bike availability, secure booking, and easy payment options. The system also empowers service providers with tools for efficient inventory management, booking tracking, and operational control.

With a focus on promoting eco-friendly transportation, this project aligns with sustainability goals, encouraging greater use of bicycles for commuting and recreation. Its scalable design ensures adaptability to future enhancements, such as subscription models, GPS tracking, and integration with public transportation networks. Overall, the Bike Rental System bridges the gap between convenience and environmental responsibility, providing a robust platform for both users and administrators.

REFERENCES

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PHP, MYSQL – www.youtube.com

Product Details– www.amazon.in

Carousel Slider – www.glidejs.com

Font Awesome Icons – www.fontawesome.com

PHP Mailer - https://github.com/PHPMailer/PHPMailer