

**A
PROJECT REPORT ON**

Online Bike Booking and Parts

**SUBMITTED IN
PARTIAL FULFILLMENT OF
DIPLOMA IN ADVANCED COMPUTING (PG-DAC)**



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**UNDER THE GUIDENCE OF
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**AT
SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY,
Karad**

**SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY,
Karad**



CERTIFICATE

This is to certify that the project

Online Bike Booking and Parts

Has been submitted by

SAGAR KUMAR

In partial fulfillment of the requirement for the Course of **PG Diploma in Advanced Computing (PG-DAC September 2023)** as prescribed by The **CDAC ACTS, PUNE.**

Place: Karad

Date: 19th-Feb-2024

RUDVEDA KULKARNI
Project Guide

Mr. Pratik Ninganur
Course Coordinator

ACKNOWLEDGEMENT

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We are deeply indebted and grateful to them for their guidance, encouragement and deep concern for our project. Without their critical evaluation and suggestions at every stage of the project, this project could never have reached its present form.

Last but not the least we thank the entire faculty and the staff members of Sunbeam Institute of Information Technology, Karad for their support.

Sagar Kumar

DAC September 23 Batch,

SIIT Karad

1. ABSTRACT

The web based “Online Bike Booking and Parts” project is an attempt to simulate the basic concepts of online bike booking and part management system. The system enables the customer to do the things such as buy multiple products, add multiple items to their cart and edit profile, add address where after entering field according to that area, state, city, area will come.

The Bike Management System allow to see all the images of product with product image and price with its description, with add to cart option and add product in cart. The system having admin as a user role also after sign in he will able to see all users who are already registered, product list, category list, add product, all order done by customer.

We have provided online interface for Dealers, Customers for booking two wheelers and selecting the accessories for the two wheelers.

The platform we used for our project are JAVA (backend), MySQL(database) and React (frontend).

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Introduction

In the rapidly evolving landscape of the automotive industry, the integration of technology has become crucial for enhancing user experience and streamlining various processes. The Online Bike Booking and Parts Project is a comprehensive solution designed to meet the demands of modern motorcycle enthusiasts, providing a convenient platform for booking bikes and purchasing parts online.

Features and Functionalities

Bike Booking: Users can browse through a catalog of available bikes, view specifications, and book them for rentals or test rides. The booking process will be user-friendly and secure.

E-commerce Platform: The project will include an integrated e-commerce section where users can explore a diverse range of motorcycle parts, accessories, and riding gear. Secure online transactions and a user-friendly shopping cart system will be implemented.

User Profiles: Users can create profiles to manage their bookings, track order history, and personalize their experience on the platform.

Search and Filter Options: Robust search and filter functionalities will be implemented to help users find specific bike models, parts, or accessories based on their preferences and requirements.

Payment Gateway Integration: Secure and seamless online payment options will be integrated to facilitate transactions, ensuring a smooth and reliable purchasing process.

The Online Bike Booking and Parts Project aims to revolutionize the way users interact with the world of motorcycles, providing them with a digital platform that is intuitive, efficient, and tailored to their needs.

2. PRODUCT OVERVIEW AND SUMMARY

2.1 Purpose

To provide user friendly platform for dealer to sell and post and fasten and smoothen the process, functionalities and communication between admin, dealers and customers. The customer looks at various choices available for different bikes and parts.

2.2 Scope

In our project admin has the scope to dis-approve the products, block and unblock the dealers and customers. The dealer can reach upto both

Our primary objective of the project is payment by customers and credited to dealers' account. Providing security to both dealers and customers from adding to successful payments.

2.3 User Classes and Characteristics

The following are our user classes

- 1)Admin- approve and dis-approve, block and unblock
- 2)Dealers – add bike and part
- 3)Customer – view, add to cart, multiple order
- 4)User – general features present for all the roles like sign, sign up ,etc.

2.4 Design and Implementation Constraints

1. Time Constraints and Project Deadlines- Fixed timelines for completing the design and delivering the final product.
2. Availability of materials: Limitations on the types and quantities of materials that can be used in the design.
3. User Experience (UX) Constraints
4. Budget Constraints

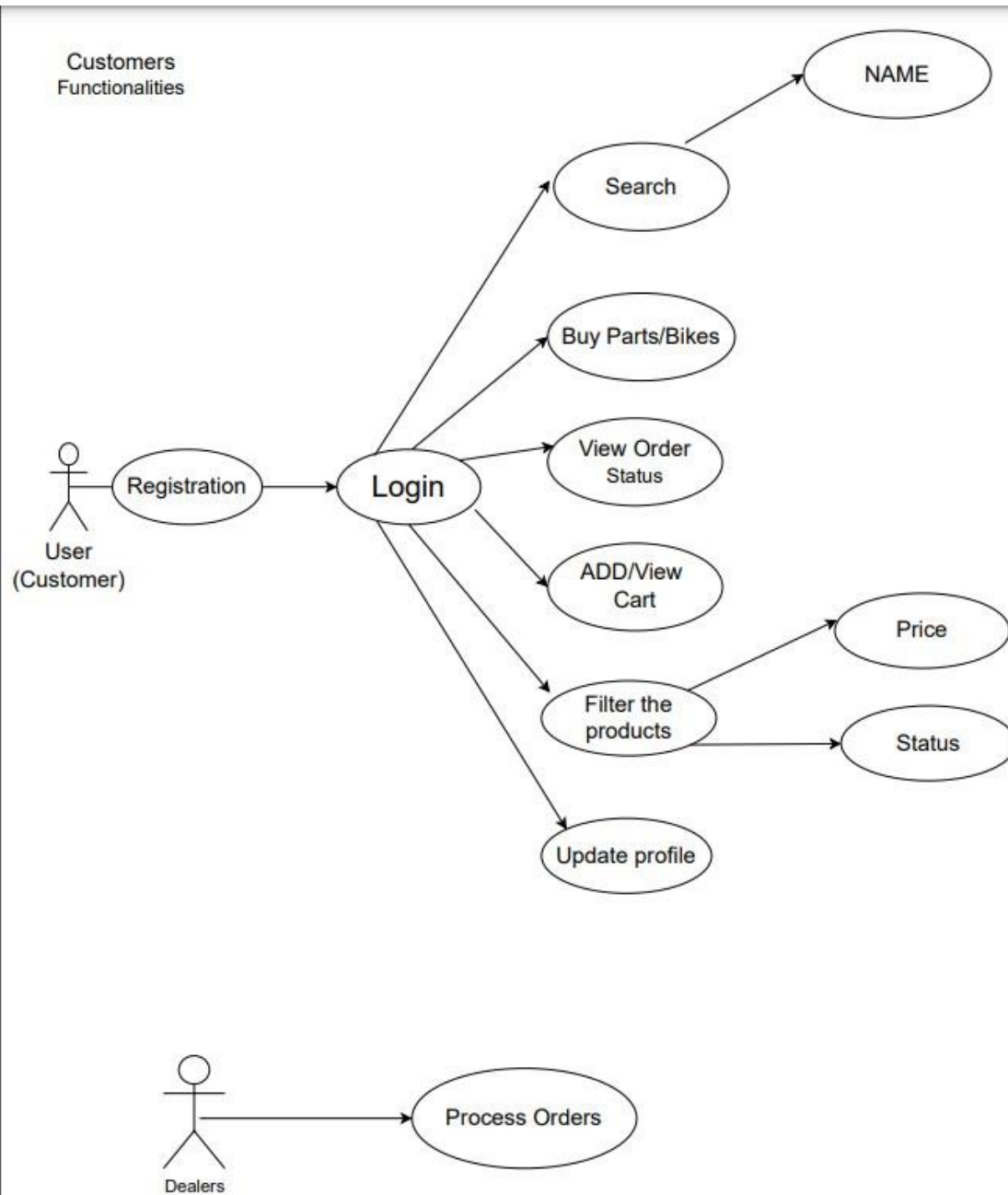
3.REQUIREMENTS

3.1 FUNCTIONAL REQUIREMENTS

The Storage Management system will have a functionality for two types of users:

1. Sign In and Sign Up
Users, Dealers and Customers can create accounts
2. Product Catalogue
Comprehensive catalogue of bikes and parts with required images and information.
3. Dealer Management
Dealer can manage the bikes and parts that they have added.
4. Order Tracking
User can see the status of the orders that they have placed which will be managed by the admin
5. Responsive Design
Platform is accessible on various designs.
6. Account Management
Users, Dealers and Customers can manage their account, i.e edit, update their profile, addresses,etc.

2.1.1 Customer/User Account



The customer, who will henceforth be called the 'user', will be presented with all the products offered by the Bike Management System, as the first step in the interaction between them. A user can choose any of these and his choice would be governed by whether he is a guest or a registered user and whether he wants to check the available products or buy them.

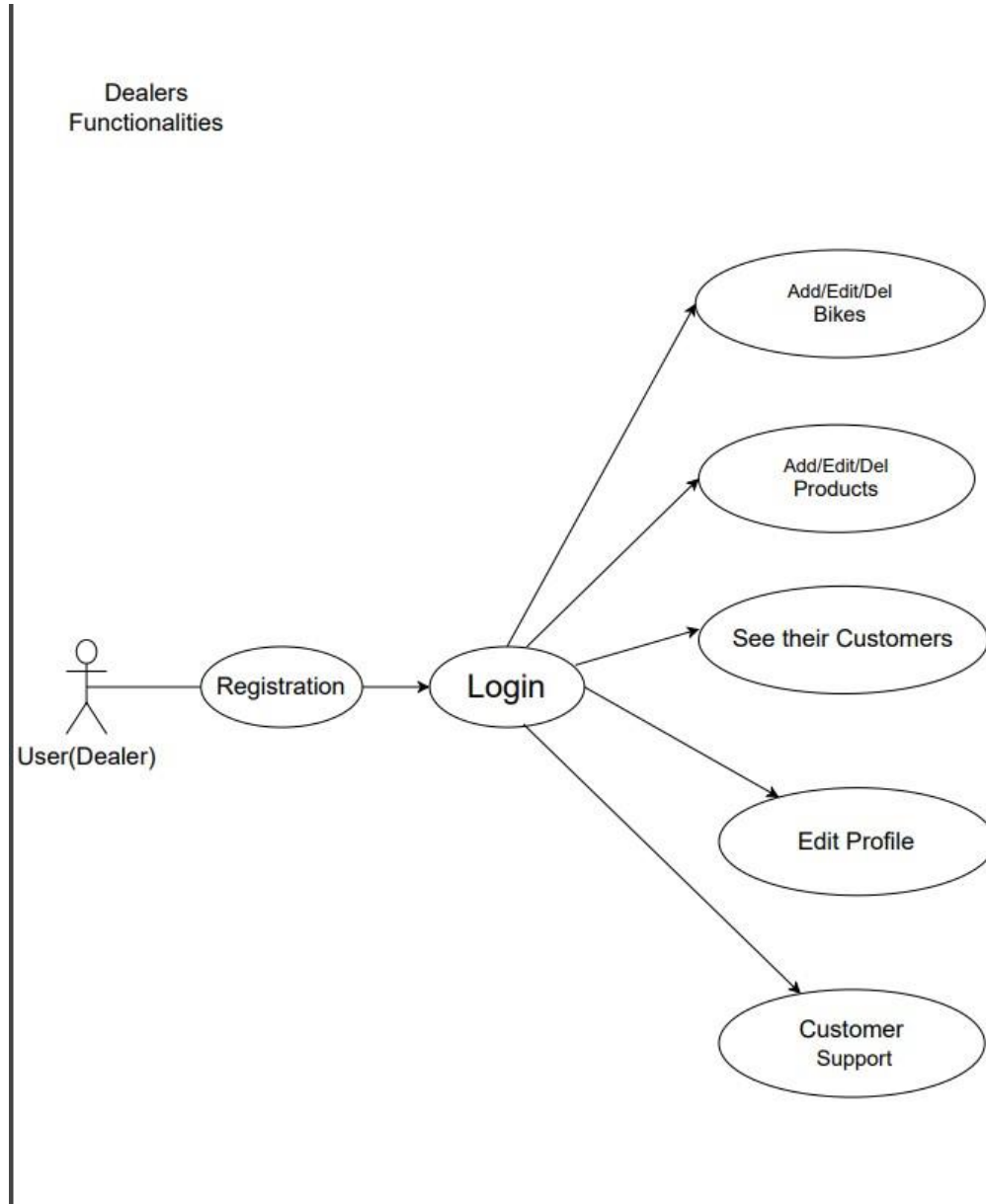
A customer can only check/see the available products and cannot directly place an order.

For placing an order, a customer must register himself in the system by providing his personal information like name, email, password etc.

2.1.2 Registration and Creation of User Profile

The Bike Management system requires a user to register himself in the systems in order to place a Bike, Part order from it. It will ask the user for the following information like first name, last name, email, password, phone number.

The system will create a user's profile to uniquely identify that user. A registered user can also edit his profile details in the future by clicking on the "My Profile" option provided in the navigation bar, after he is logged in.



Non Functional Requirements

3.2.1 Usability Requirement:

1. Intuitive Navigation: The platform should offer an easy-to-navigate interface for users to browse products effortlessly.
2. User-Friendly Design: The design should be visually appealing, ensuring a positive and enjoyable shopping experience.
3. Product Information: Product listings should include detailed descriptions and high-quality images for informed decision-making.
4. Smooth Shopping Cart Interaction: Users should be able to add and review items in their shopping carts seamlessly.
5. Real-Time Order Tracking: User can see the status for his order status.

3.2.2 Performance Requirement:

1. Transaction Processing Time: The platform should process transactions, including order placement within 5 seconds.
2. Scalability: The system should handle a simultaneous user load of at least 1000 users without significant performance degradation.
3. Database Response Time: Database queries should be optimized to provide responses within 2 seconds for efficient data retrieval.

3.2.3 Reliability Requirement

1. Data Integrity: Data integrity checks should be implemented to prevent data corruption, ensuring the accuracy and reliability of stored information.
2. Fault Tolerance: The system should be designed with fault-tolerant features to continue operation in the presence of hardware or software failures.
3. User Account Reliability: User accounts and profiles should be reliable, with secure authentication methods to prevent unauthorized access or account compromise.

Project Design

Database Design :

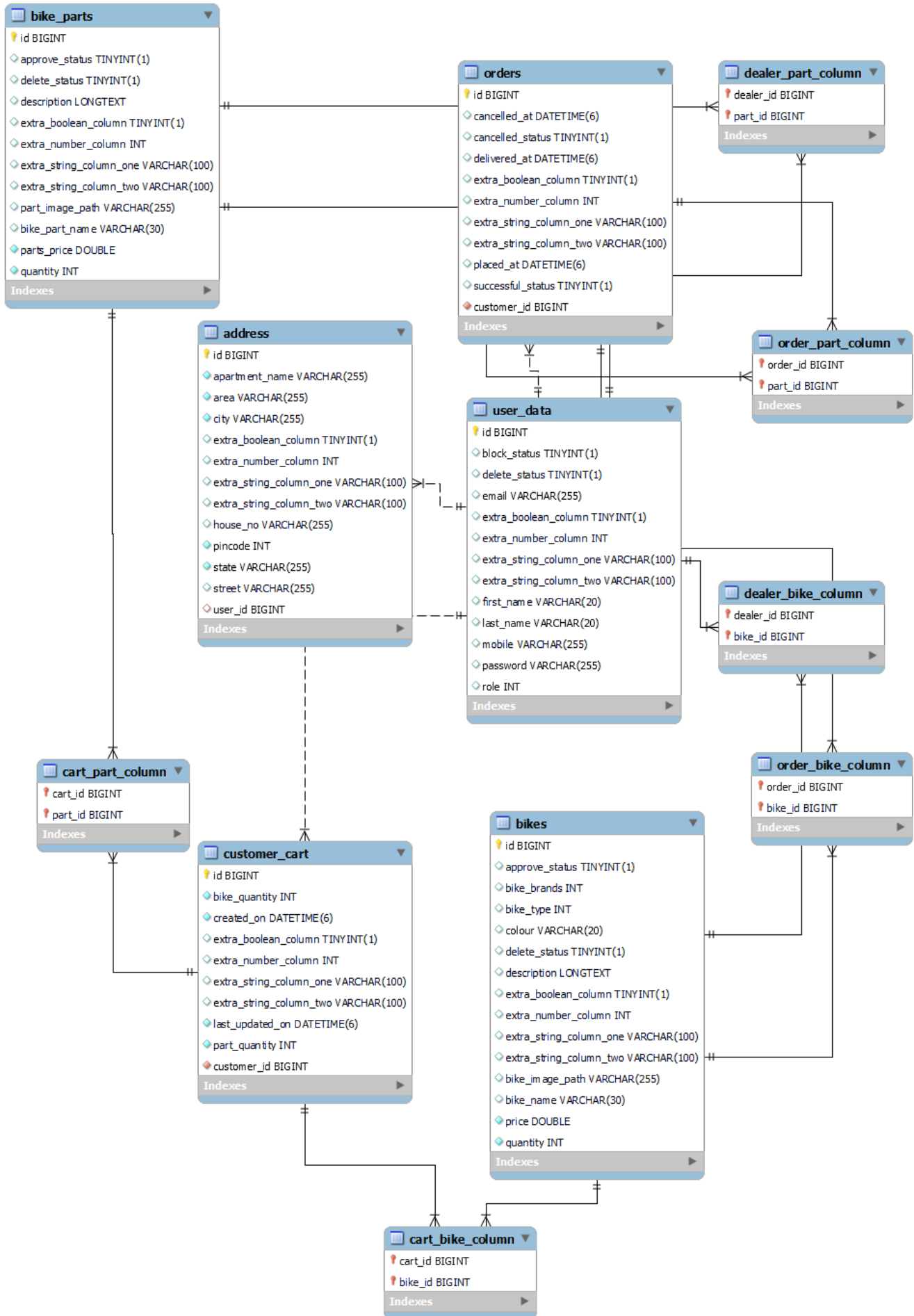


Table Design

Column ▲	Type	Default Value	Nullable	Character Set	Collation	Privileges
◇ apartment_name	varchar(255)		NO	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ area	varchar(255)		NO	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ city	varchar(255)		NO	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references
◇ extra_number_column	int	1	YES			select,insert,update,references
◇ extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ house_no	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ id	bigint		NO			select,insert,update,references
◇ pincode	int		NO			select,insert,update,references
◇ state	varchar(255)		NO	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ street	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references
◇ user_id	bigint		YES			select,insert,update,references

Address

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
◇ approve_status	tinyint(1)	0	YES			select,insert,update,references	
◇ bike_part_name	varchar(30)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
◇ delete_status	tinyint(1)	0	YES			select,insert,update,references	
◇ description	longtext		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
◇ extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references	
◇ extra_number_column	int	1	YES			select,insert,update,references	
◇ extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
◇ extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
◇ id	bigint		NO			select,insert,update,references	auto_increment
◇ part_image_path	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
◇ parts_price	double		NO			select,insert,update,references	
◇ quantity	int		NO			select,insert,update,references	

Bike Parts

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
approve_status	tinyint(1)	0	YES			select,insert,update,references	
bike_brands	int		YES			select,insert,update,references	
bike_image_path	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
bike_name	varchar(30)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
bike_type	int		YES			select,insert,update,references	
colour	varchar(20)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
delete_status	tinyint(1)	0	YES			select,insert,update,references	
description	longtext		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references	
extra_number_column	int	1	YES			select,insert,update,references	
extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
id	bigint		NO			select,insert,update,references	auto_increment
price	double		NO			select,insert,update,references	
quantity	int		NO			select,insert,update,references	

Bikes

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
bike_id	bigint		NO			select,insert,update,references	
cart_id	bigint		NO			select,insert,update,references	

Cart_bike_column

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges
cart_id	bigint		NO			select,insert,update,references
part_id	bigint		NO			select,insert,update,references

Cart_part_column

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
bike_quantity	int	0	NO			select,insert,update,references	
created_on	datetime(6)		NO			select,insert,update,references	
customer_id	bigint		NO			select,insert,update,references	
extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references	
extra_number_column	int	1	YES			select,insert,update,references	
extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
id	bigint		NO			select,insert,update,references	auto_increment
last_updated_on	datetime(6)		NO			select,insert,update,references	
part_quantity	int	0	NO			select,insert,update,references	

Customer_cart

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges
❖ bike_id	bigint		NO			select,insert,update,references
❖ dealer_id	bigint		NO			select,insert,update,references

Dealer_bike_column

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
❖ dealer_id	bigint		NO			select,insert,update,references	
❖ part_id	bigint		NO			select,insert,update,references	

Dealer_part_column

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
❖ bike_id	bigint		NO			select,insert,update,references	
❖ order_id	bigint		NO			select,insert,update,references	

Order_bike_column

Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
❖ order_id	bigint		NO			select,insert,update,references	
❖ part_id	bigint		NO			select,insert,update,references	

Order_part_column

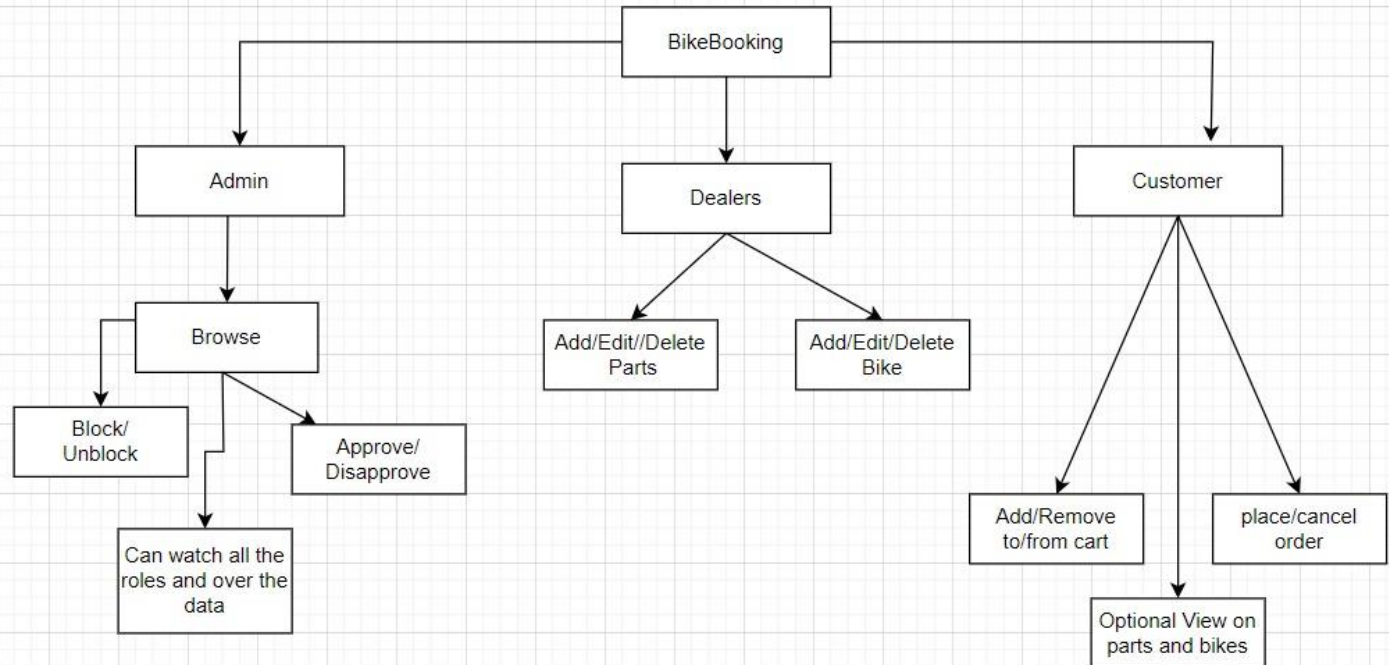
Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
❖ cancelled_at	datetime(6)		YES			select,insert,update,references	
❖ cancelled_status	tinyint(1)	0	YES			select,insert,update,references	
❖ customer_id	bigint		NO			select,insert,update,references	
❖ delivered_at	datetime(6)		YES			select,insert,update,references	
❖ extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references	
❖ extra_number_column	int	1	YES			select,insert,update,references	
❖ extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ id	bigint		NO			select,insert,update,references	auto_increment
❖ placed_at	datetime(6)		YES			select,insert,update,references	
❖ successful_status	tinyint(1)	0	YES			select,insert,update,references	

Orders

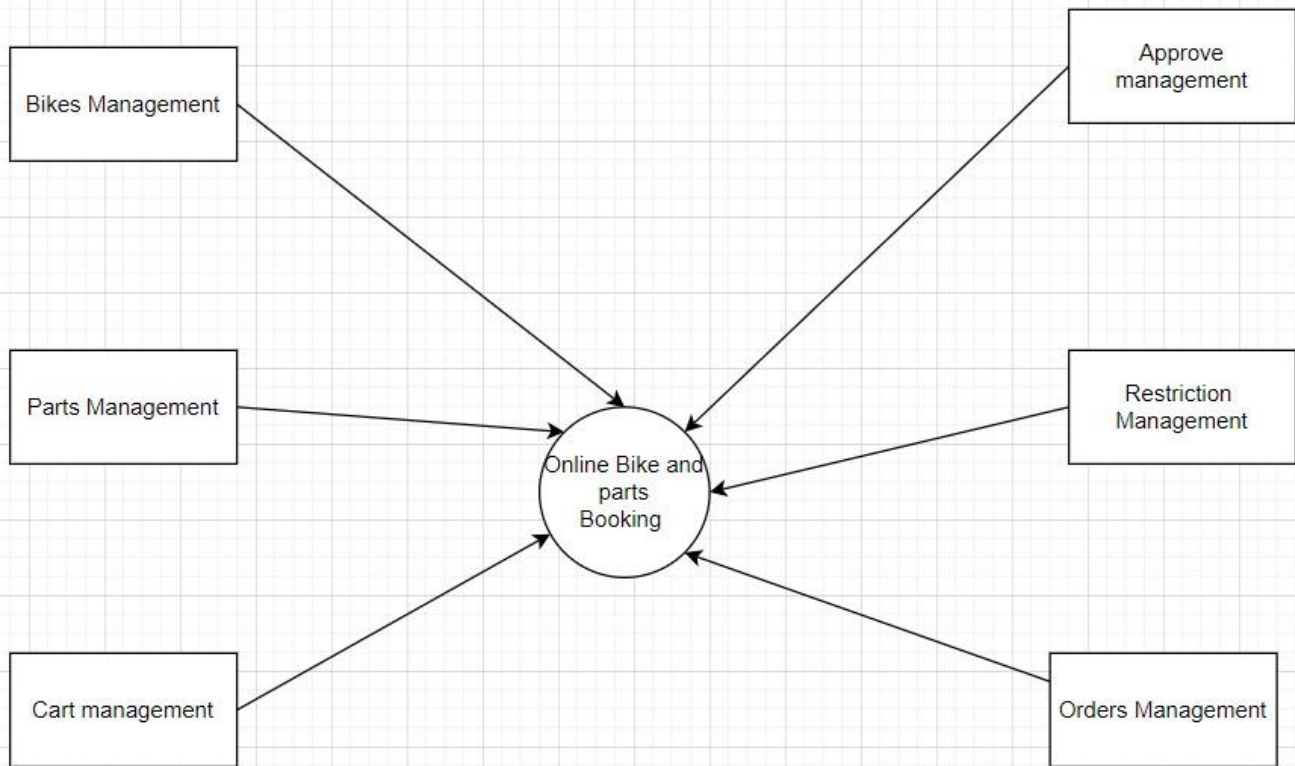
Column	Type	Default Value	Nullable	Character Set	Collation	Privileges	Extra
❖ block_status	tinyint(1)	0	YES			select,insert,update,references	
❖ delete_status	tinyint(1)	0	YES			select,insert,update,references	
❖ email	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ extra_boolean_column	tinyint(1)	0	YES			select,insert,update,references	
❖ extra_number_column	int	1	YES			select,insert,update,references	
❖ extra_string_column_...	varchar(100)	bike1	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ extra_string_column_...	varchar(100)	bike2	YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ first_name	varchar(20)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ id	bigint		NO			select,insert,update,references	auto_increment
❖ last_name	varchar(20)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ mobile	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ password	varchar(255)		YES	utf8mb4	utf8mb4_0900_...	select,insert,update,references	
❖ role	int		YES			select,insert,update,references	

User Data

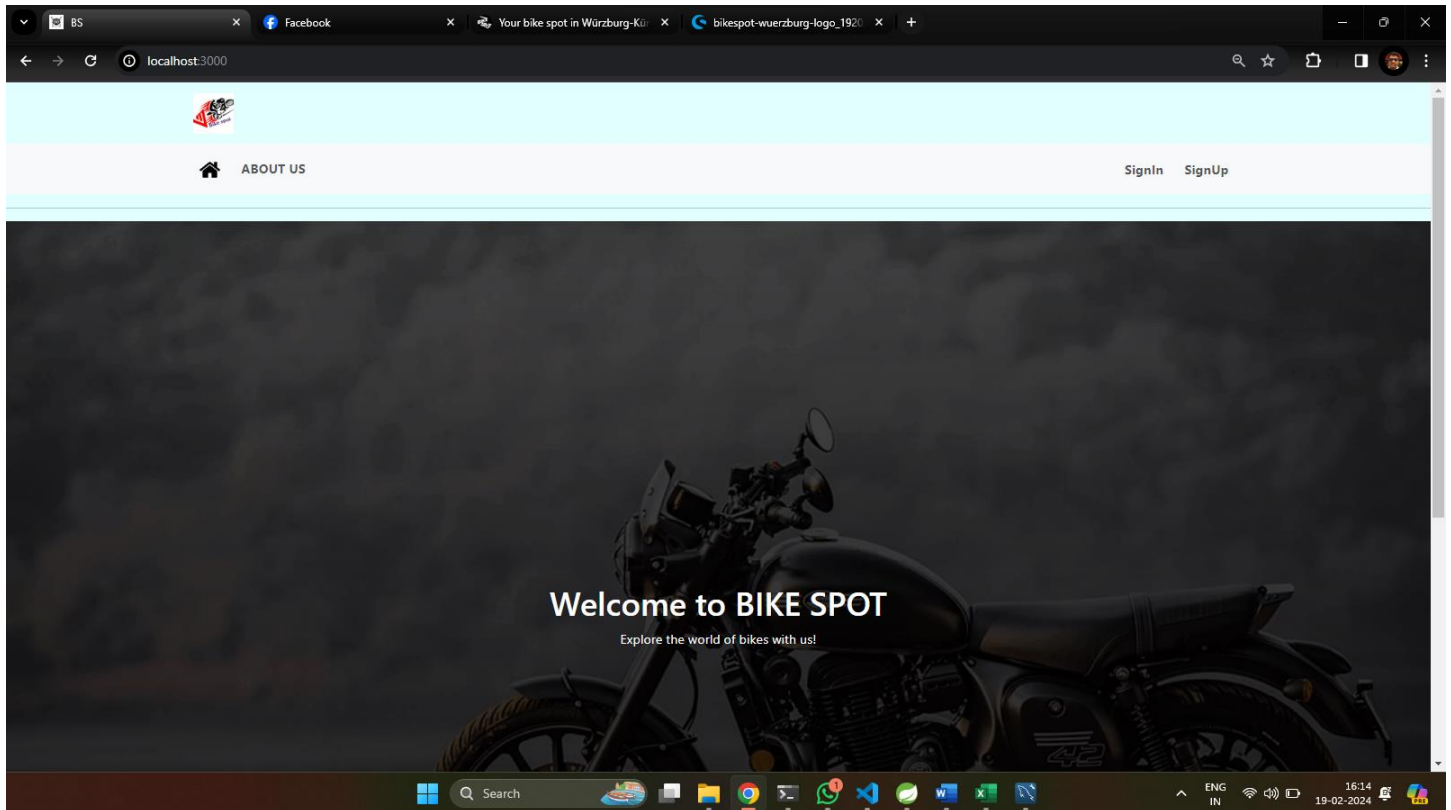
Functional Decomposition Diagram



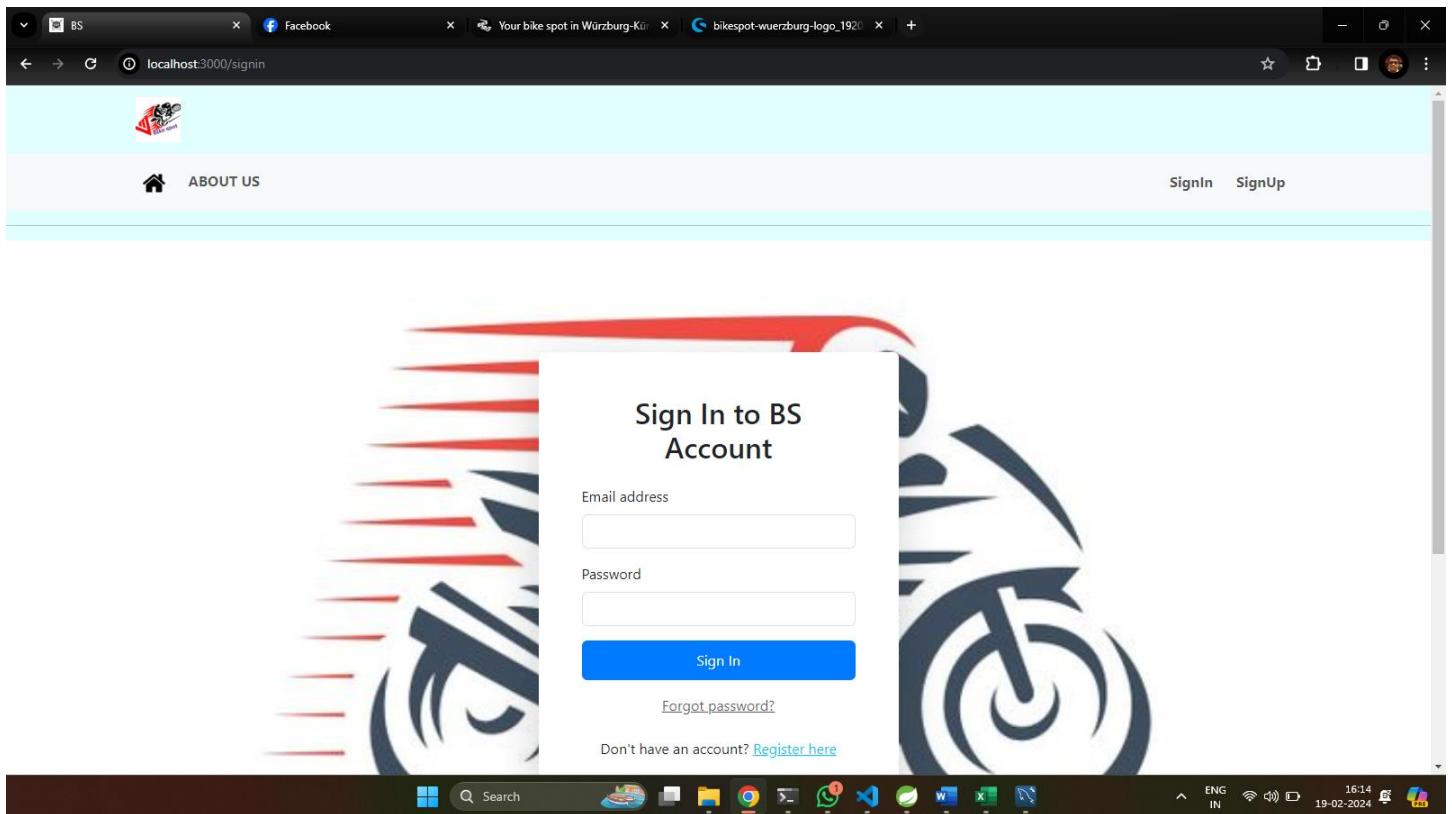
Flow Digram



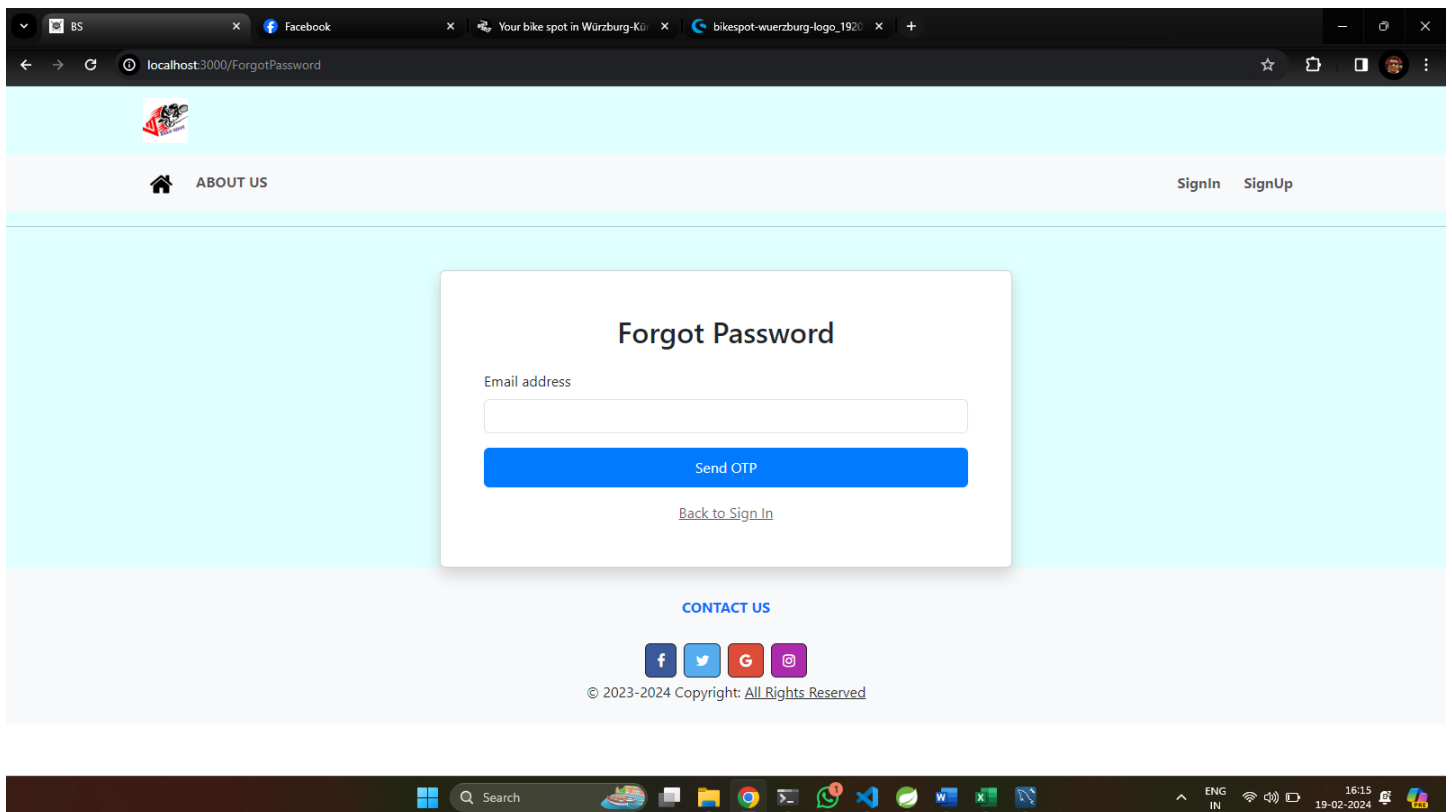
Web Pages of our site BikeSpot



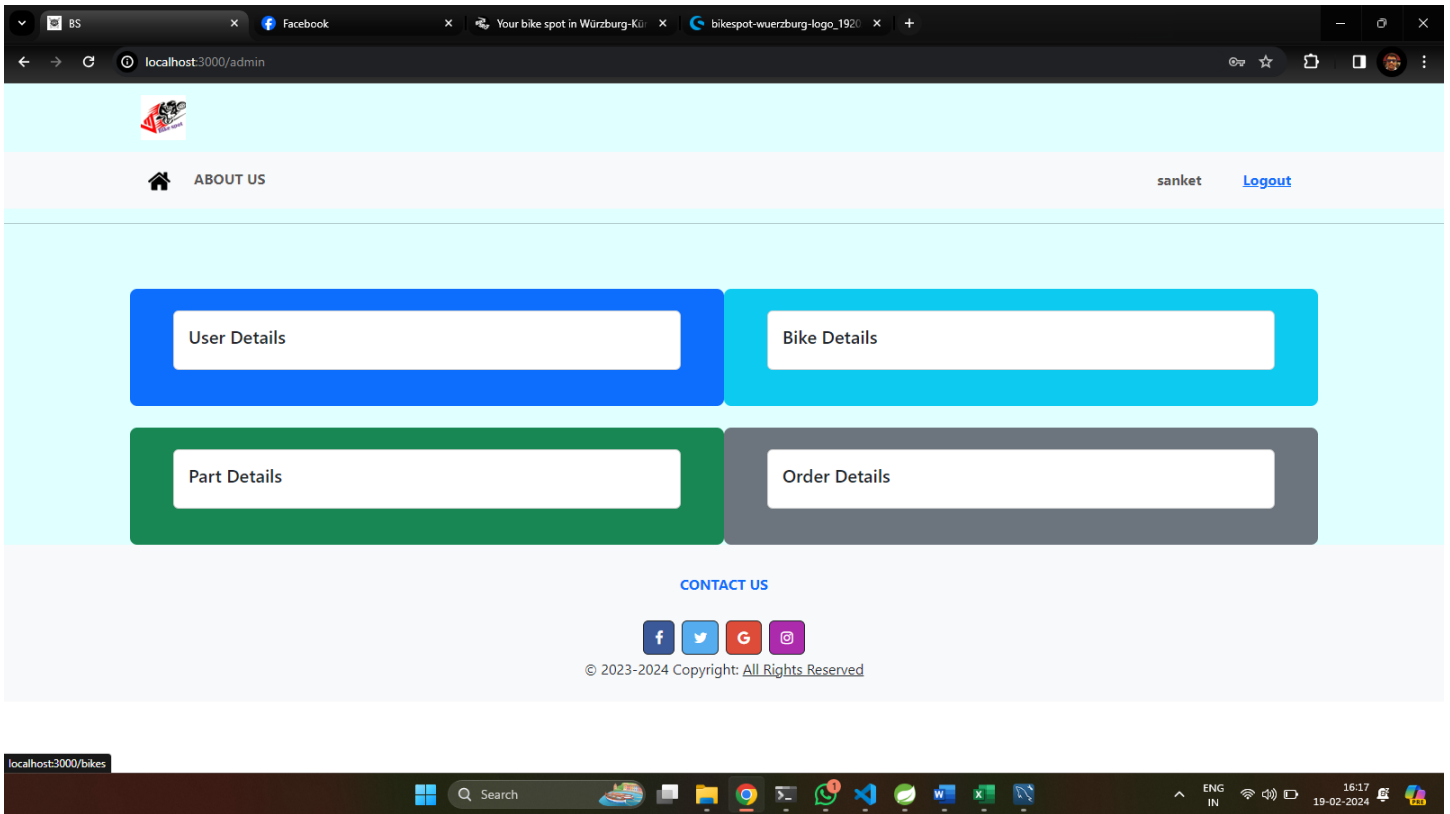
Home Page



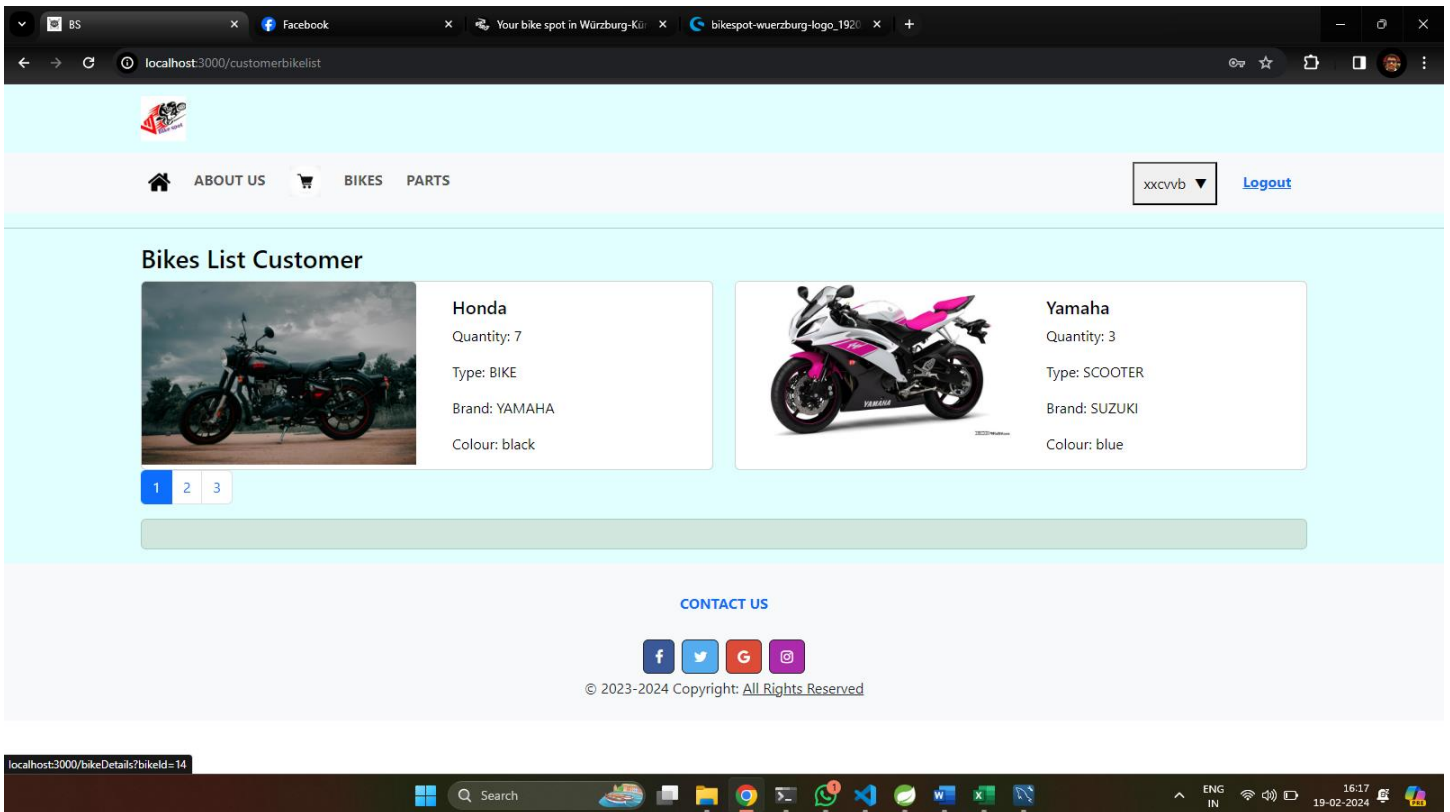
SignIn Page



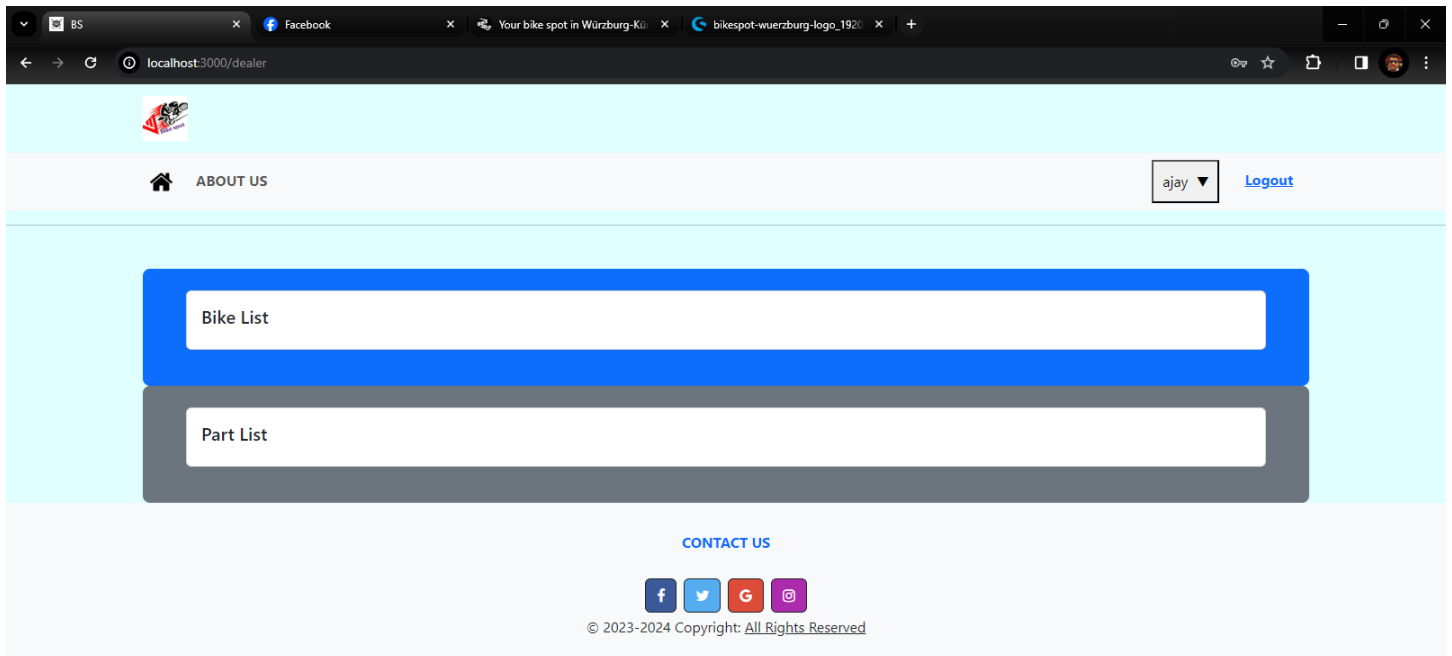
Forget Password Page



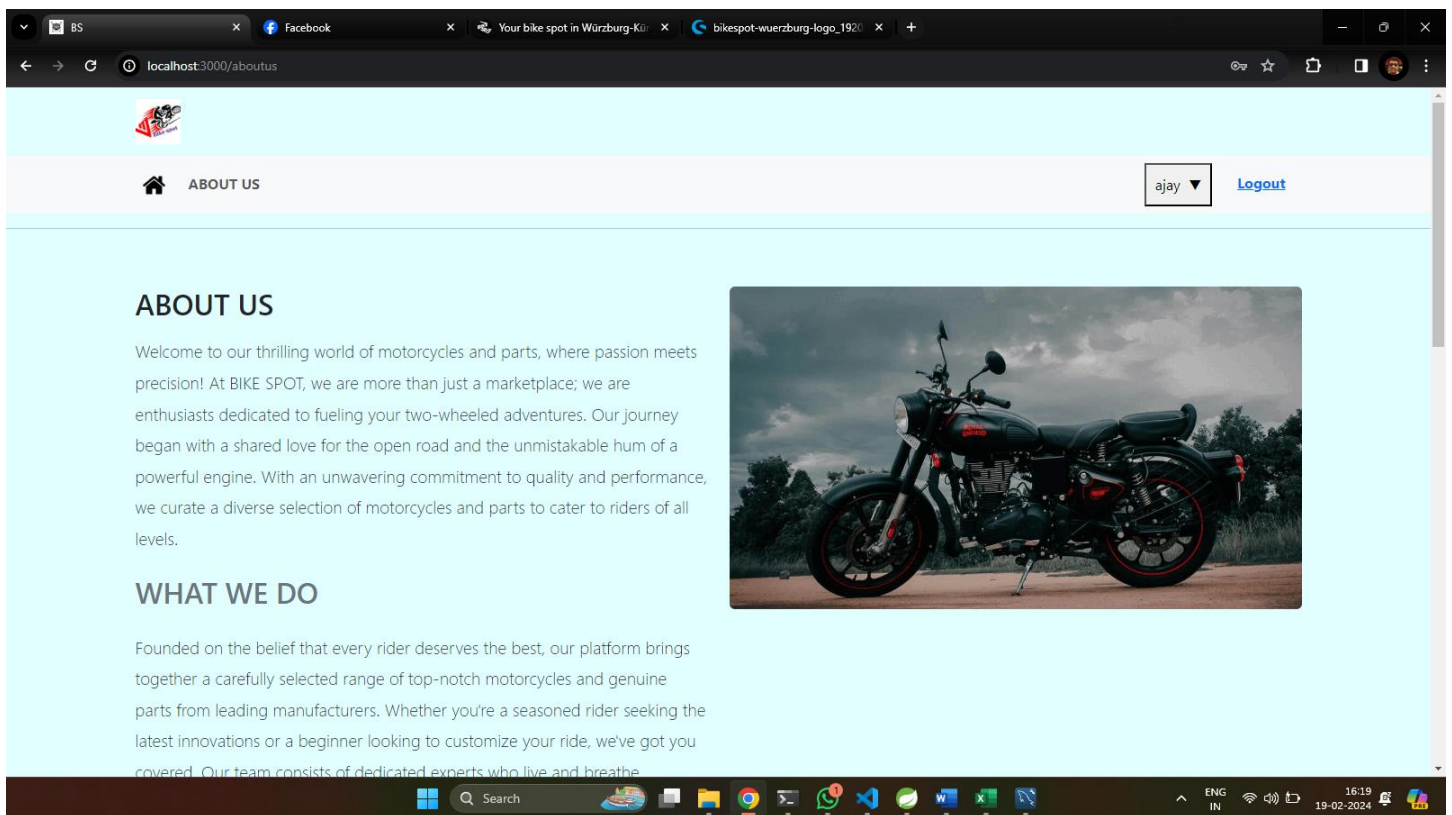
Admin Home Page



Customer Home Page



Dealer Home Page



About Us Page

Project Related Statistics

Number of Admins = 4

Number of Customers = 6

Number of Dealers = 4

Number of Bikes = 6

Number of Parts = 10

In Summary

In conclusion, the Bike booking project endeavors to redefine the online bike and parts booking in the ecommerce website. It creates a user-friendly platform for the dealers who want to sell there their bikes and parts of that bikes online, and also to the customers who are busy in daily routines and have to purchase the bike and parts online.