



**INSTITUTE FOR ADVANCED COMPUTING AND
SOFTWARE DEVELOPMENT, AKURDI, PUNE**

KiddoHub - Day Care Centre

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ABSTRACT

Kiddohub Day Care Center is an advanced management solution specifically designed to cater to the needs of child care facilities focusing on infants and toddlers. This platform provides a comprehensive suite of features that simplify and optimize the daily operations of a day care center.

At its core, Kiddohub offers a streamlined child enrollment process that allows parents to easily register their children and update their profiles through a user-friendly interface. The system supports detailed profile management, which includes tracking developmental milestones, health records, and personal preferences, ensuring that each child's individual needs are met with precision.

The platform's intuitive design facilitates efficient communication between caregivers and parents, enhancing transparency and engagement. Administrators can effortlessly manage schedules through a central dashboard, which reduces administrative workload and improves overall efficiency.

Kiddohub's robust features are tailored to create a supportive and organized environment for both children and staff, making it an invaluable tool for day care centers dedicated to providing high-quality care for young children.

ACKNOWLEDGEMENT

It gives us great pleasure in presenting the project “ **KiddoHub - Day Care Centre**”.

We would like to take this opportunity to thank our internal guide **Ms. Sonali Mogal , Ms. Shraddha Salunkhe** for giving us all the help and guidance we needed. We are really grateful to her for her kind support. Her Valuable suggestions were very useful .

We are also thankful to our Centre Co-Ordinator **Mr. Rohit Puranik**, for providing various resources such as a laboratory with all needed software platforms, continuous internet connection. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

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1. INTRODUCTION

In the Daycare center, where we prioritize the well-being, growth, and safety of every child entrusted to our care. Our facility is designed to provide a nurturing environment that not only fosters learning and creativity but also ensures that each child feels valued and supported.

We understand that choosing a daycare is a significant decision for parents, which is why we have implemented a range of features to make the process as seamless and reassuring as possible. Our child registration system is user-friendly and efficient, allowing parents to easily enroll their children and provide detailed information about their needs, preferences, and health. This ensures that our caregivers have all the necessary information to deliver personalized care that meets each child's unique requirements. In addition to child registration, we offer a straightforward parent registration process. This system allows parents to create and manage their accounts with ease, giving them access to their child's information, daily activities, and progress reports.

For our administrative staff, we provide a powerful admin dashboard that serves as the command center for all daycare operations. This comprehensive tool offers real-time updates, allowing administrators to efficiently manage child and parent registrations, staff schedules, and overall daily activities. The dashboard also enables the generation of detailed reports, facilitating informed decision-making and continuous improvement of our services.

We also understand the importance of financial transparency and convenience, which is why our system includes an automated payment generation feature. Parents can easily manage and complete payments through our secure platform, with flexible options that cater to different preferences. The system automatically generates invoices based on attendance and selected services, simplifying the billing process for both parents and administrators.

To ensure the highest level of safety, we provide emergency doctor support. In the event of a medical emergency, our on-demand medical assistance is readily available. The system is integrated with each child's health records, enabling medical professionals to quickly access vital information and provide appropriate care.

Our daycare center is more than just a place for your child to spend the day; it's a community dedicated to supporting your child's development and well-being. We combine advanced technology with compassionate care to create an environment where every child can thrive, and where parents can feel confident that their child is in good hands.

1.1 Purpose

The purpose of developing a daycare center website is to create a digital platform that streamlines the interaction between parents, caregivers, and administrators, enhancing the overall experience and efficiency of the daycare center

1.2 Scope

The scope of the daycare center website encompasses the various functionalities, features, and services that the platform will provide to meet the needs of parents, caregivers, and administrators.

The scope outlines the extent of the project, defining what will be included in the website's development and ensuring that all key areas are addressed.

1.3 Objectives

Key objectives include:

1. **Simplified Registration Process:** The website allows parents to easily register their children online, providing a convenient and efficient way to enroll in the daycare. This reduces paperwork and speeds up the admission process.
2. **Efficient Profile Management:** Through the website, parents can manage their child's profile, updating information such as health records, developmental milestones, and personal preferences. This ensures that caregivers have access to the most current and relevant information to provide personalized care.
3. **Enhanced Communication:** The website serves as a communication hub, allowing parents to stay informed about their child's activities, progress, and any important updates from the daycare center. It also enables direct messaging between parents and staff.
4. **Centralized Administration:** The website includes an admin dashboard for daycare staff to manage registrations, track attendance, and oversee daily operations. This centralization of data helps streamline administrative tasks and improve overall efficiency.
5. **Access to Emergency Support:** The website integrates with emergency medical support systems, ensuring that in case of a medical emergency, relevant health information is readily available, and swift action can be taken.
6. **Convenience for Parents:** The website is designed to be user-friendly and accessible, providing parents with a convenient way to interact with the daycare center, monitor their child's progress, and manage their account from any location.

2. Software Requirements Specification (SRS)

2.1 Functional Requirements

2.1.1 Registration and Management of Children

Description: Allow registration of new children and manage their profiles.

Detailed Requirements:

- Capture child's first name, last name, date of birth, gender, allergies, emergency contacts, and parent information, medical information.
- Each child must have at least one parent associated.
- Support addition, modification, and deletion of child records.

2.1.2 Parent Management

Description: Manage information related to parents or guardians of the children.

Detailed Requirements:

- Store parent's name, phone number, email address, home address, and relationship to child.
- Allow addition, modification, and deletion of parent records.
- Support linking multiple children to the same parent.

2.1.3 Staff Management

Description: Manage staff details.

Detailed Requirements:

- Capture staff member's name, position, date of hire, phone number, email address, address.
- Support addition, modification, and deletion of staff records.

2.1.4 Activity Management

Description: Schedule and manage activities for children at the day care center.

Detailed Requirements:

- Create activities with names, descriptions, suitable age groups, schedules, and assigned staff members.

- Allow addition, modification, and deletion of activities.

2.1.5 Doctor Management

Description: Manage information and actions related to doctors responsible for health checkups of children at the daycare center.

Detailed Requirements: ● Doctor Information: Capture the doctor's name, specialty, phone number, email.

- Health Checkup Records: Allow the recording of health checkup details for each child, including date, findings, and any recommended actions.
- Medical Approval: Support the functionality for doctors to mark a child as medically fit for daycare enrollment. This approval is required for a child's registration to be completed.
- Record Management: Enable the addition, modification, and deletion of doctor records.
- Linking to Children: Facilitate the linkage of health checkup records to individual child profiles.
- Notifications: Automatically notify administrators once a health checkup is completed and the child's medical status is updated.

2.2 Non-Functional Requirements

2.2.1 Security Requirements

Ensure data privacy and security through role-based access controls. Encrypt sensitive information such as medical records.

2.2.2 Performance Requirements

The system should handle simultaneous access from multiple users without significant performance degradation.

Response times for common operations (e.g., registration, payments) should be fast (within seconds).

2.2.3 Reliability Requirements

Implement regular database backups to prevent data loss.

Ensure high availability of the system to support uninterrupted operations.

2.2.4 Scalability Requirements

Design the database and system architecture to handle a growing number of children, parents, staff, and activities over time.

2.2.5 Usability Requirements

Provide a user-friendly interface for easy navigation and data entry. Ensure that staff with varying levels of technical proficiency can use the system effectively.

3. Software and Hardware Requirement

Back-end Server Configuration:

- Intel Pentium-IV Processor
- 128 MB RAM

Front-end Client Configuration: ●

Intel 3 @ 650 MHz Processor

- 4GB RAM
- 1 TB Hard Disk Drive

Software Interfaces:

Software configuration for back-end Services:

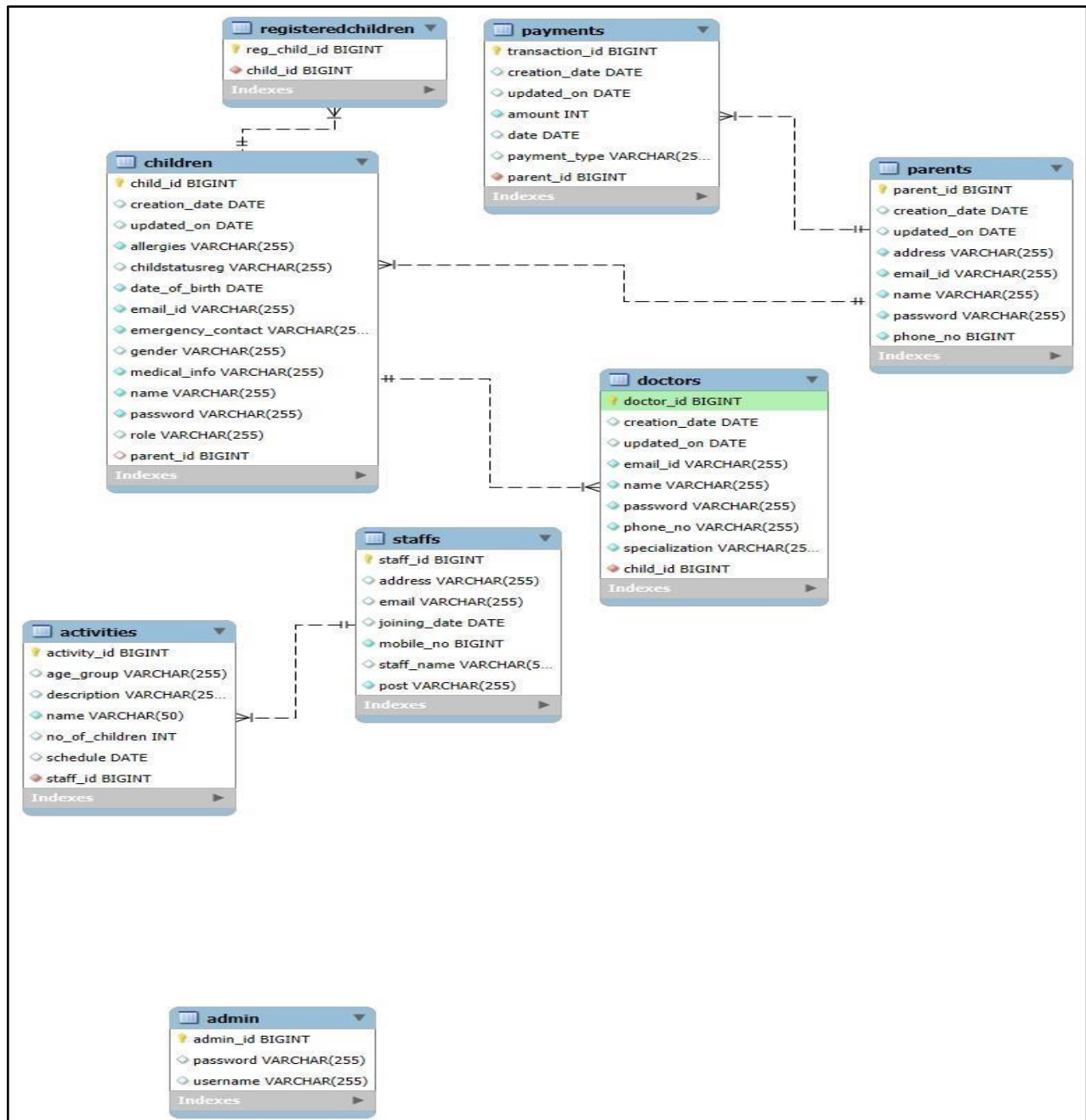
- Java EE
- Spring Boot, JPA
- MySQL
- STS 3.9.18

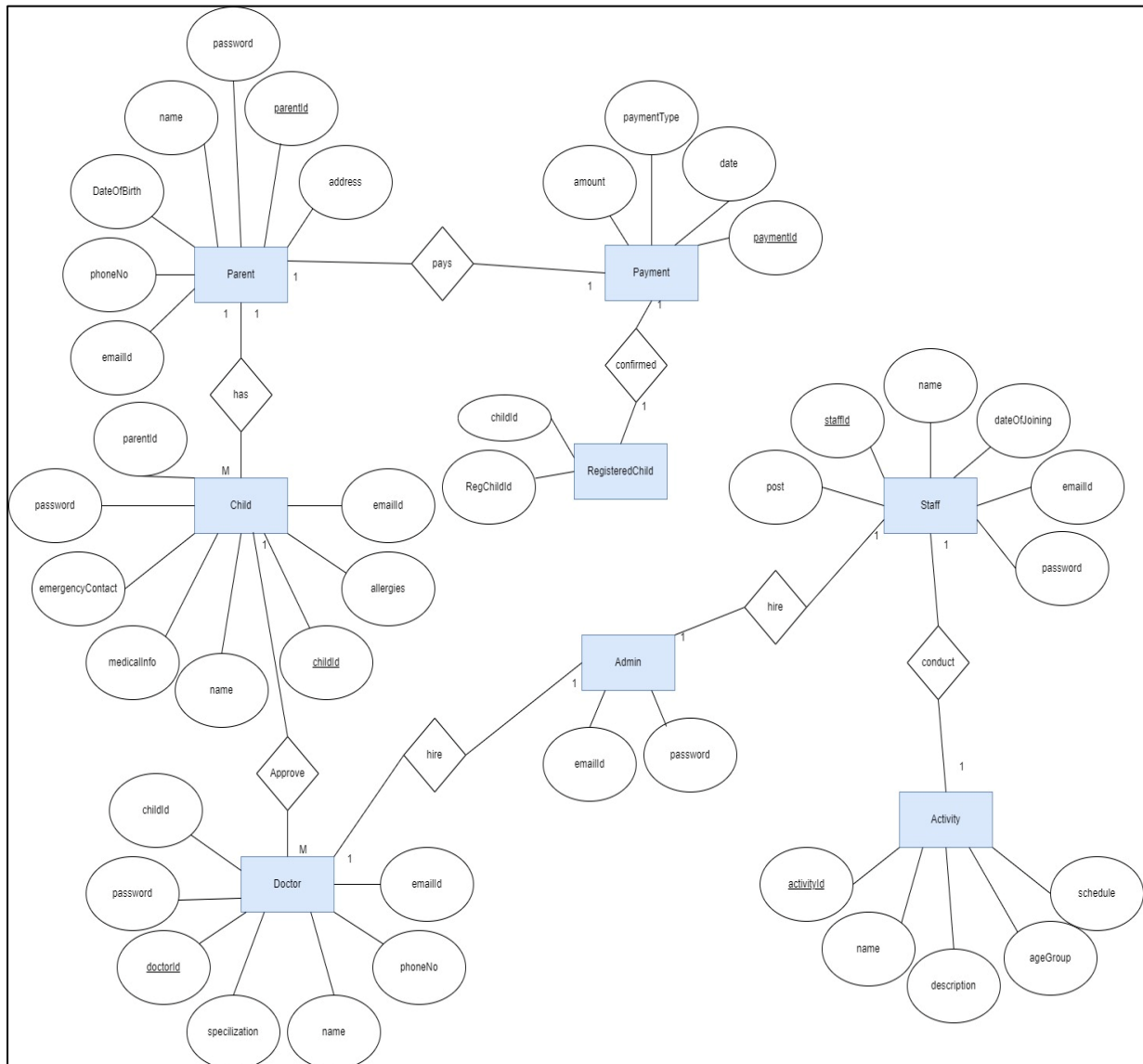
Software configuration for front-end Services:

- ReactJS
- HTML, CSS, JS
- Bootstrap
- VS Code

4.DIAGRAMS

4.1 ER Diagram





4.2 Data Flow Diagram



Fig DFD Level 0

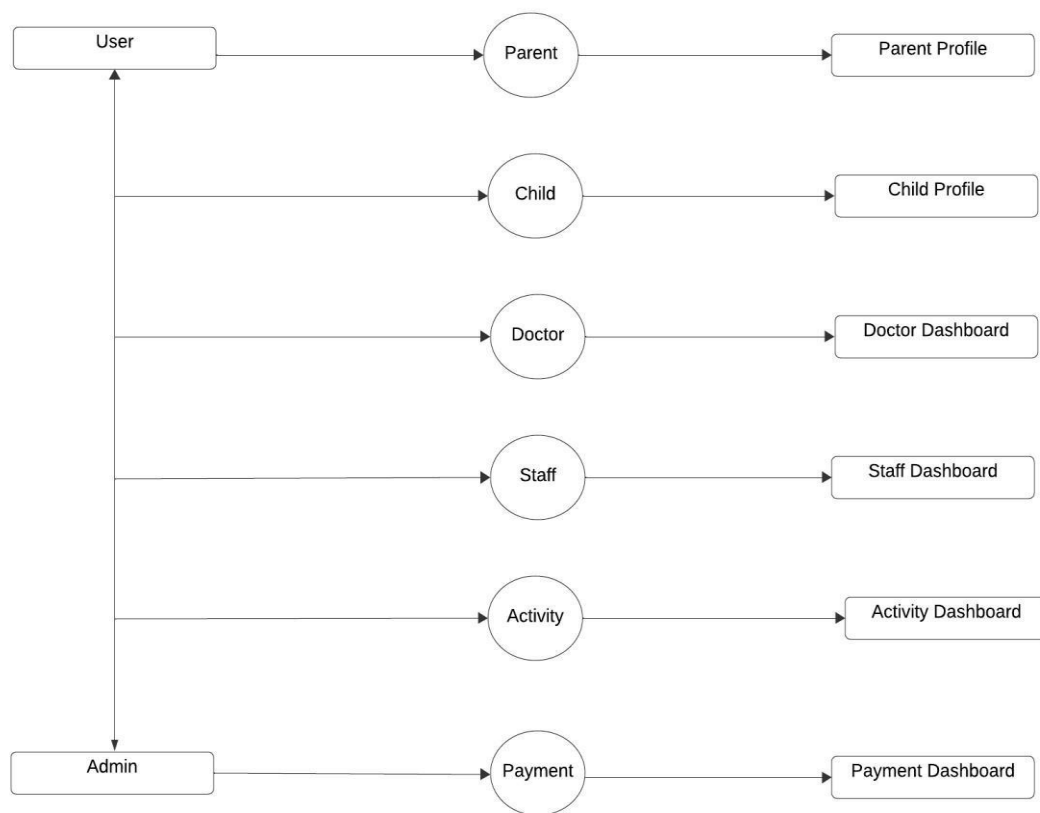
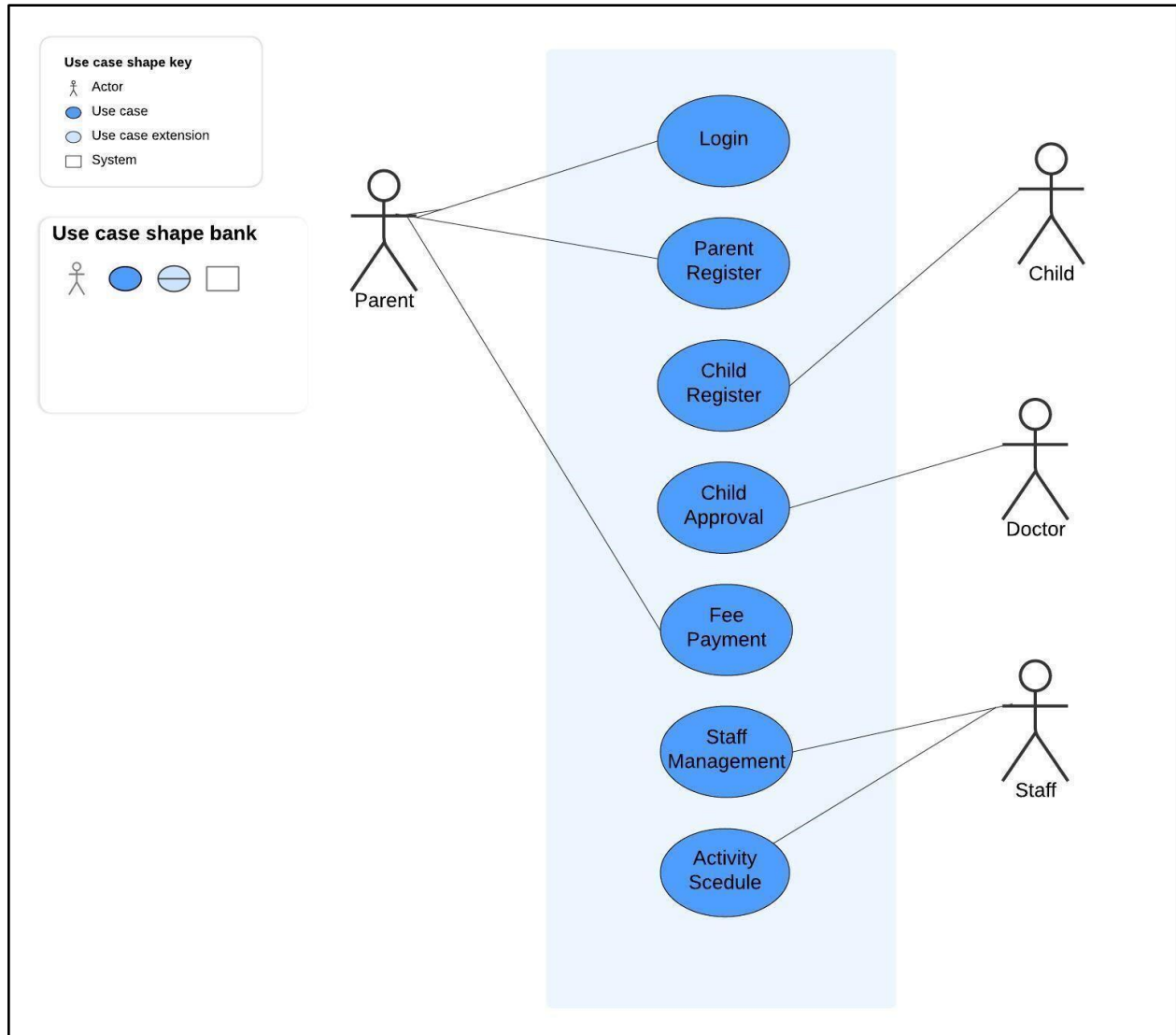


Fig DFD Level 1

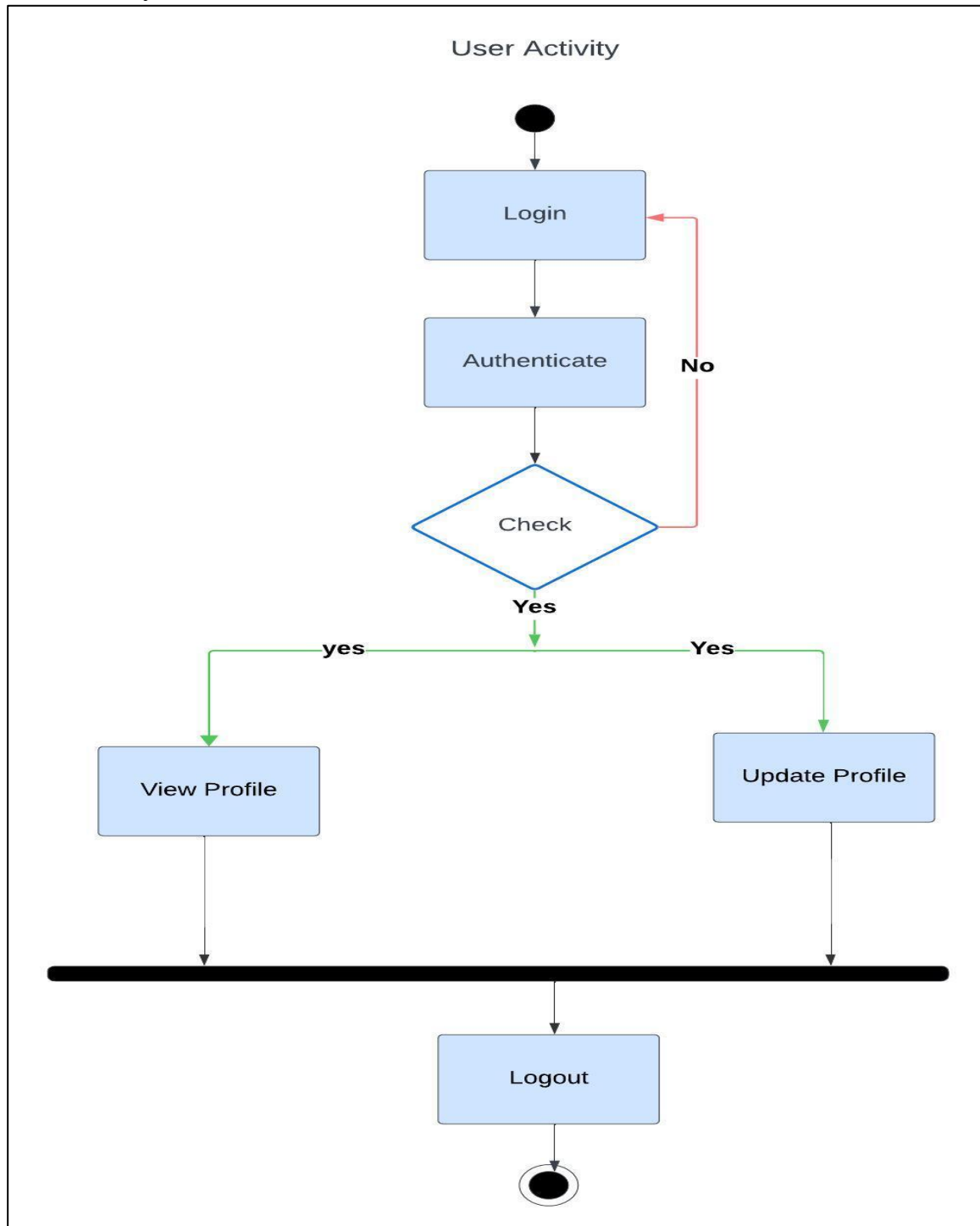
5.UML Diagrams

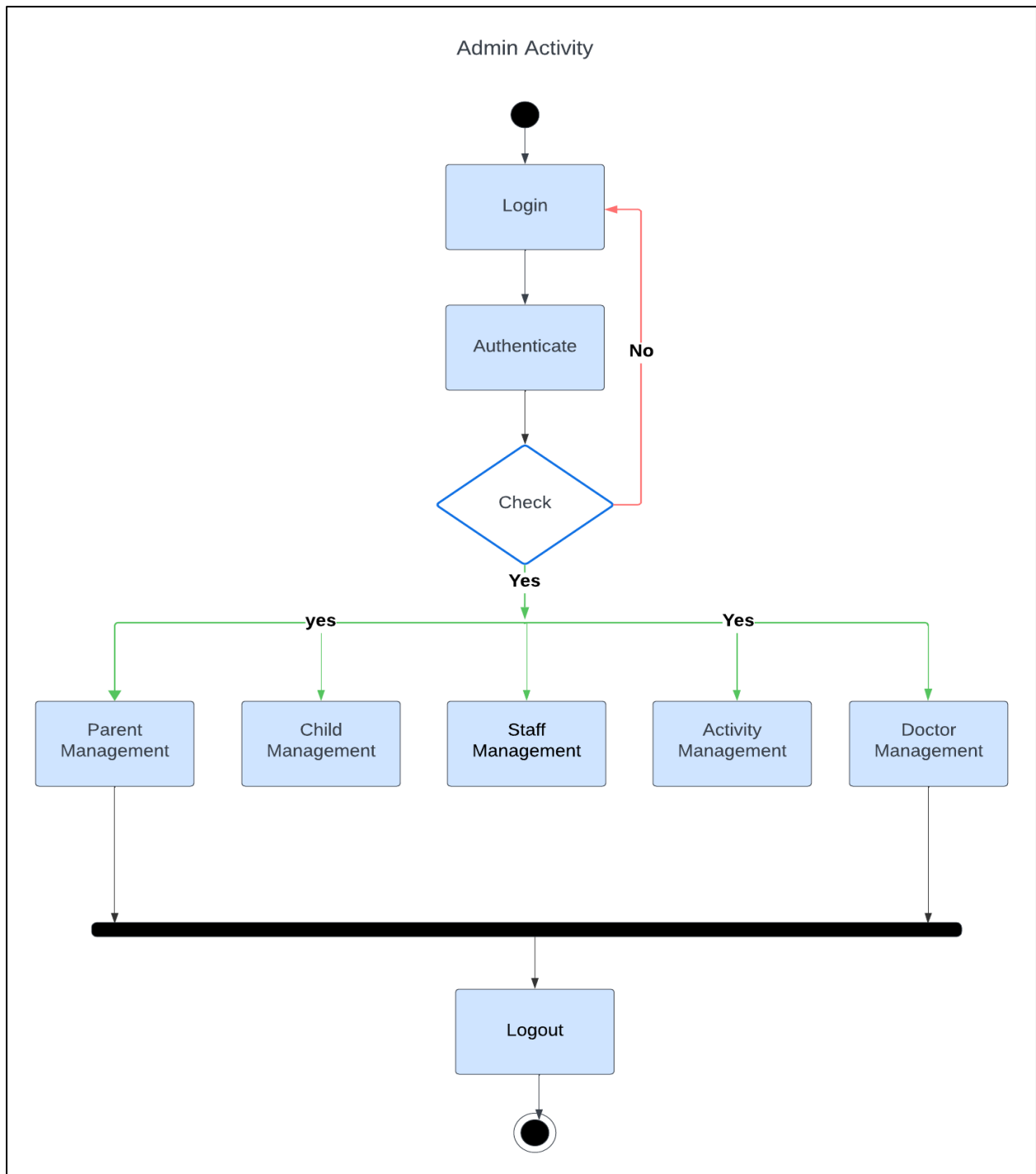
5.1 Use Case Diagram



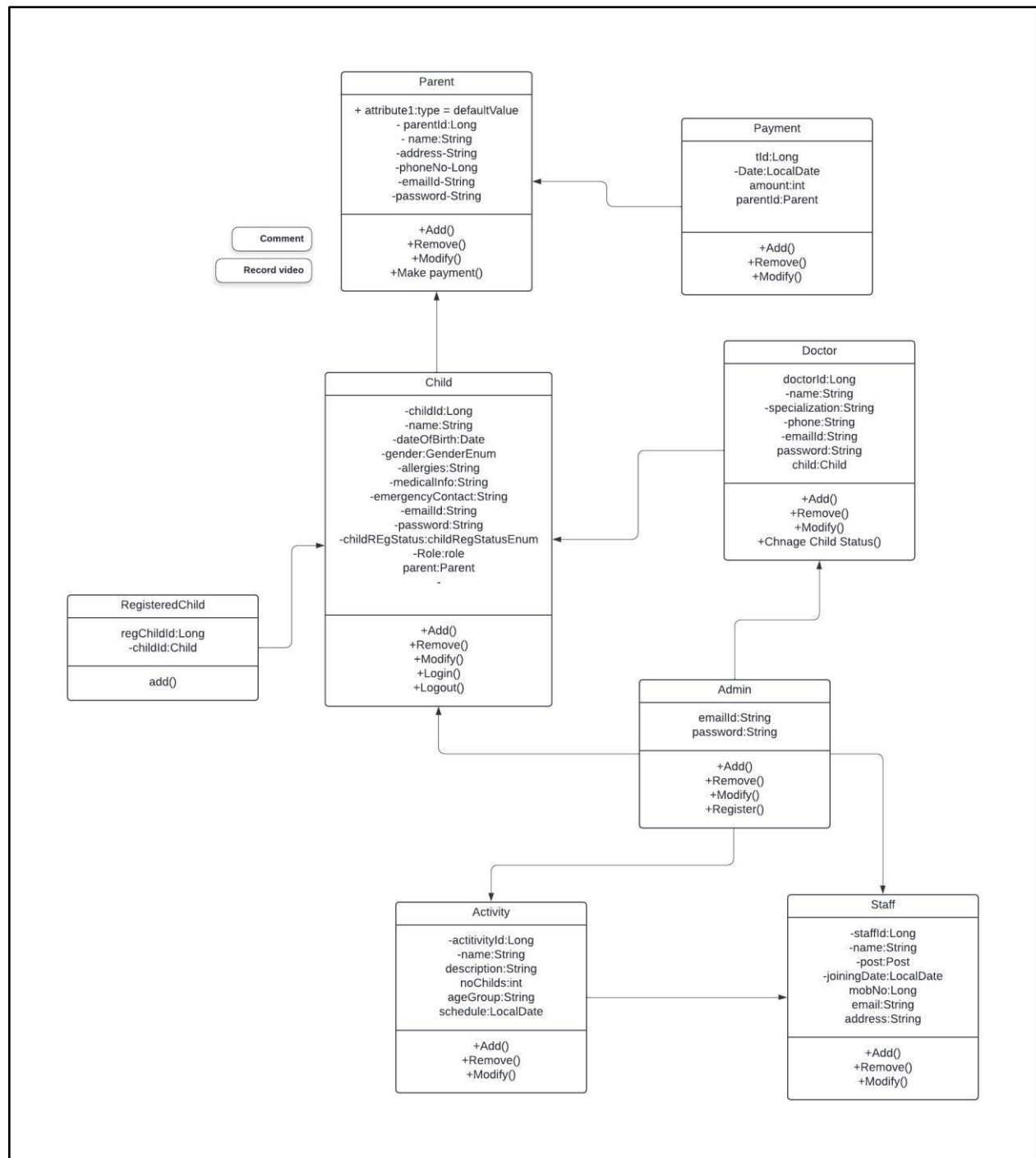
5.2 Activity Diagram

User Activity:

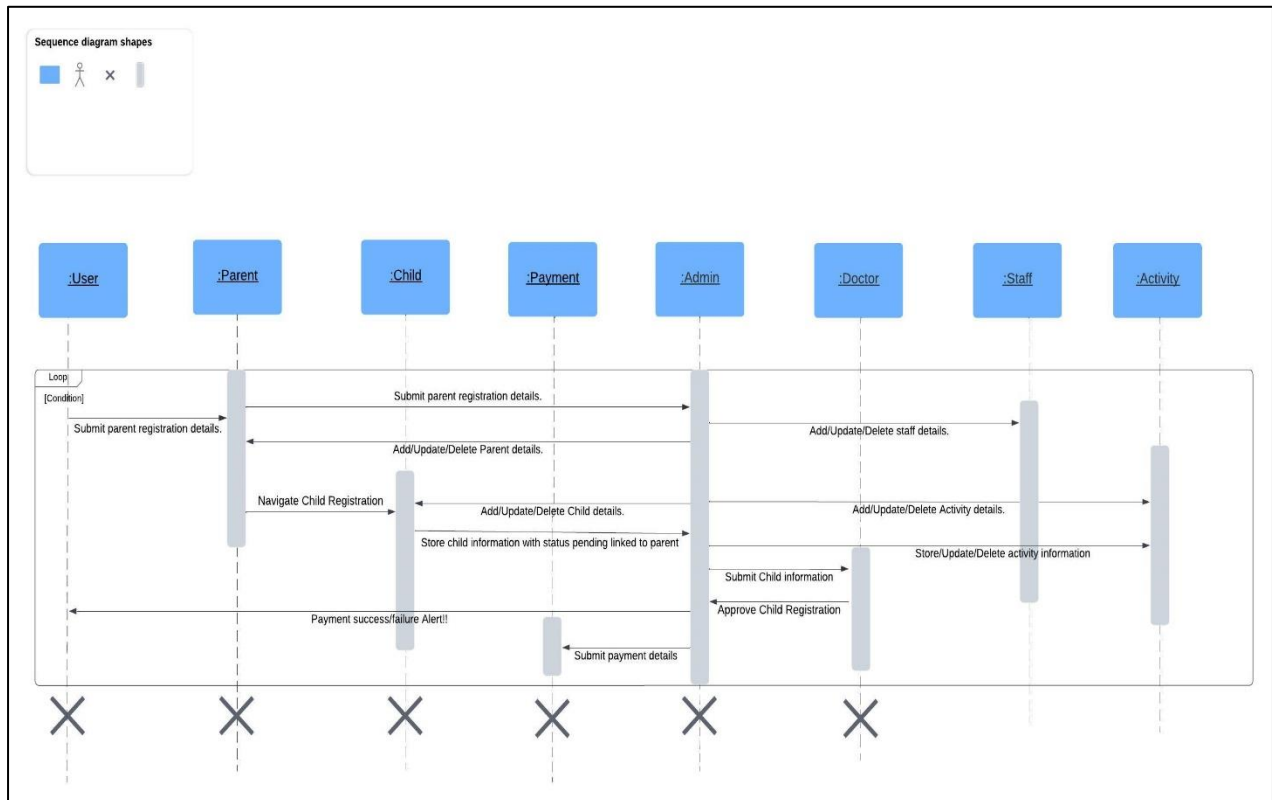


Admin Activity:

5.3 Class Diagram



5.4 Sequence Diagram



6.TABLE STRUCTURE

```
mysql> use kiddohub;
Database changed
mysql> desc children;
```

Field	Type	Null	Key	Default	Extra
child_id	bigint	NO	PRI	NULL	auto_increment
creation_date	date	YES		NULL	
updated_on	date	YES		NULL	
allergies	varchar(255)	NO		NULL	
childstatusreg	varchar(255)	YES		NULL	
date_of_birth	date	NO		NULL	
email_id	varchar(255)	NO	UNI	NULL	
emergency_contact	varchar(255)	NO		NULL	
gender	varchar(255)	YES		NULL	
medical_info	varchar(255)	NO		NULL	
name	varchar(255)	NO		NULL	
password	varchar(255)	NO		NULL	
role	varchar(255)	YES		NULL	
parent_id	bigint	YES	MUL	NULL	

```
14 rows in set (0.01 sec)
```

```
mysql> desc parents;
```

Field	Type	Null	Key	Default	Extra
parent_id	bigint	NO	PRI	NULL	auto_increment
creation_date	date	YES		NULL	
updated_on	date	YES		NULL	
address	varchar(255)	NO		NULL	
email_id	varchar(255)	NO	UNI	NULL	
name	varchar(255)	NO		NULL	
password	varchar(255)	NO		NULL	
phone_no	bigint	NO		NULL	

```
8 rows in set (0.00 sec)
```

```
mysql> desc staffs;
```

Field	Type	Null	Key	Default	Extra
staff_id	bigint	NO	PRI	NULL	auto_increment
address	varchar(255)	YES		NULL	
email	varchar(255)	YES	UNI	NULL	
joining_date	date	YES		NULL	
mobile_no	bigint	NO	UNI	NULL	
staff_name	varchar(50)	YES		NULL	
post	varchar(255)	NO		NULL	

```
7 rows in set (0.00 sec)
```

```
mysql> desc doctors;
```

Field	Type	Null	Key	Default	Extra
doctor_id	bigint	NO	PRI	NULL	auto_increment
creation_date	date	YES		NULL	
updated_on	date	YES		NULL	
email_id	varchar(255)	NO	UNI	NULL	
name	varchar(255)	NO		NULL	
password	varchar(255)	NO		NULL	
phone_no	varchar(255)	NO		NULL	
specialization	varchar(255)	NO		NULL	
child_id	bigint	NO	MUL	NULL	

```
9 rows in set (0.00 sec)
```

```
mysql> desc activities;
```

Field	Type	Null	Key	Default	Extra
activity_id	bigint	NO	PRI	NULL	auto_increment
age_group	varchar(255)	YES		NULL	
description	varchar(255)	YES		NULL	
name	varchar(50)	NO		NULL	
no_of_children	int	YES		NULL	
schedule	date	YES		NULL	
staff_id	bigint	NO	MUL	NULL	

```
7 rows in set (0.00 sec)
```

```
mysql> desc registeredchildren;
```

Field	Type	Null	Key	Default	Extra
reg_child_id	bigint	NO	PRI	NULL	auto_increment
child_id	bigint	NO	MUL	NULL	

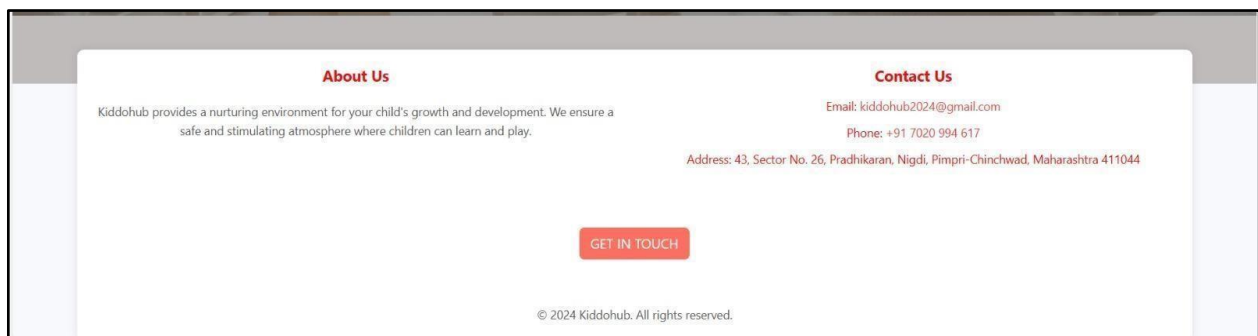
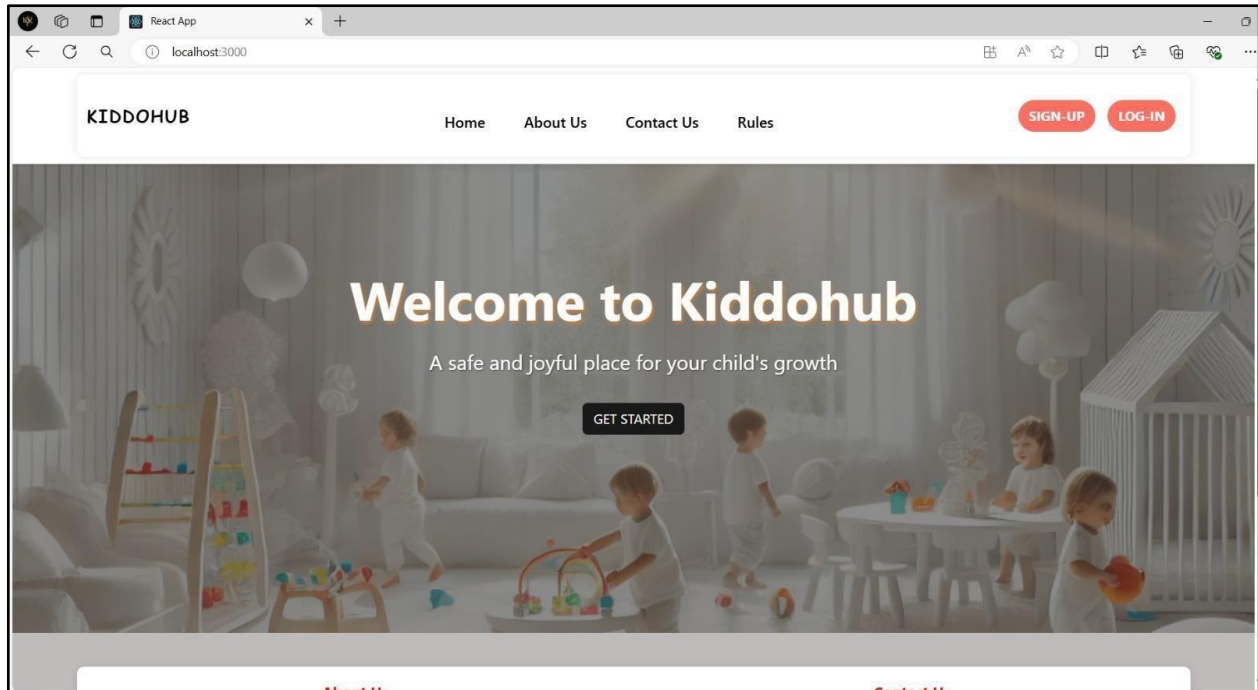
```
2 rows in set (0.00 sec)
```

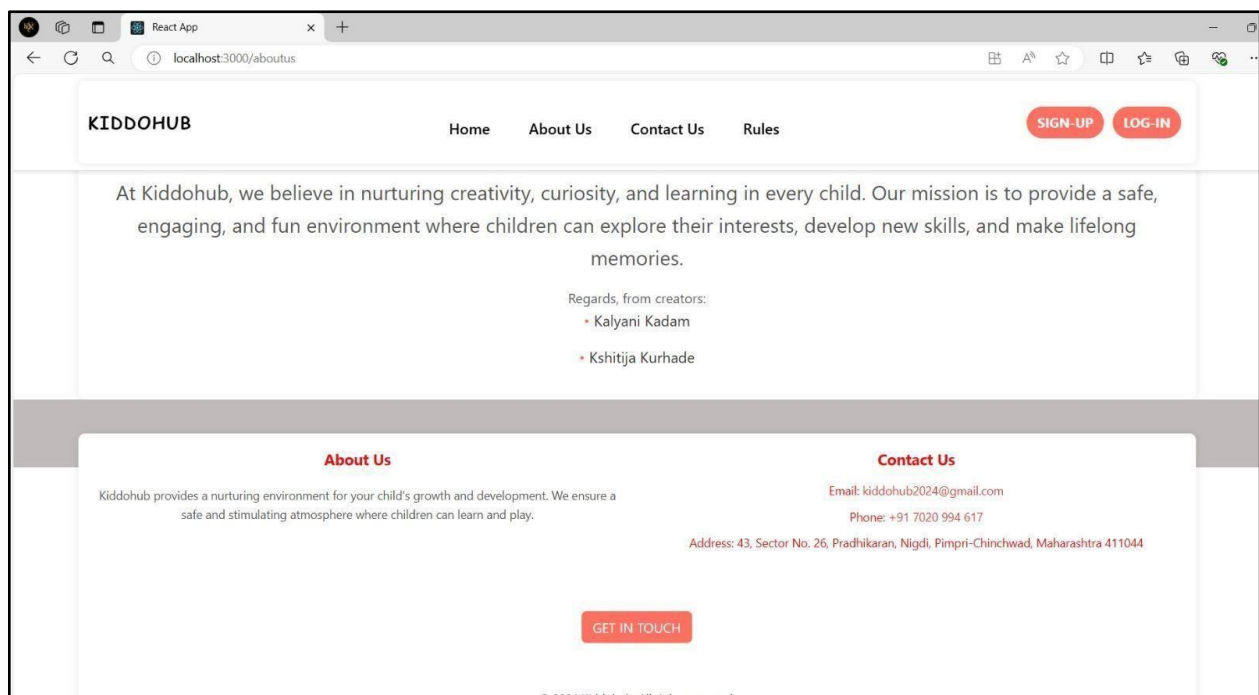
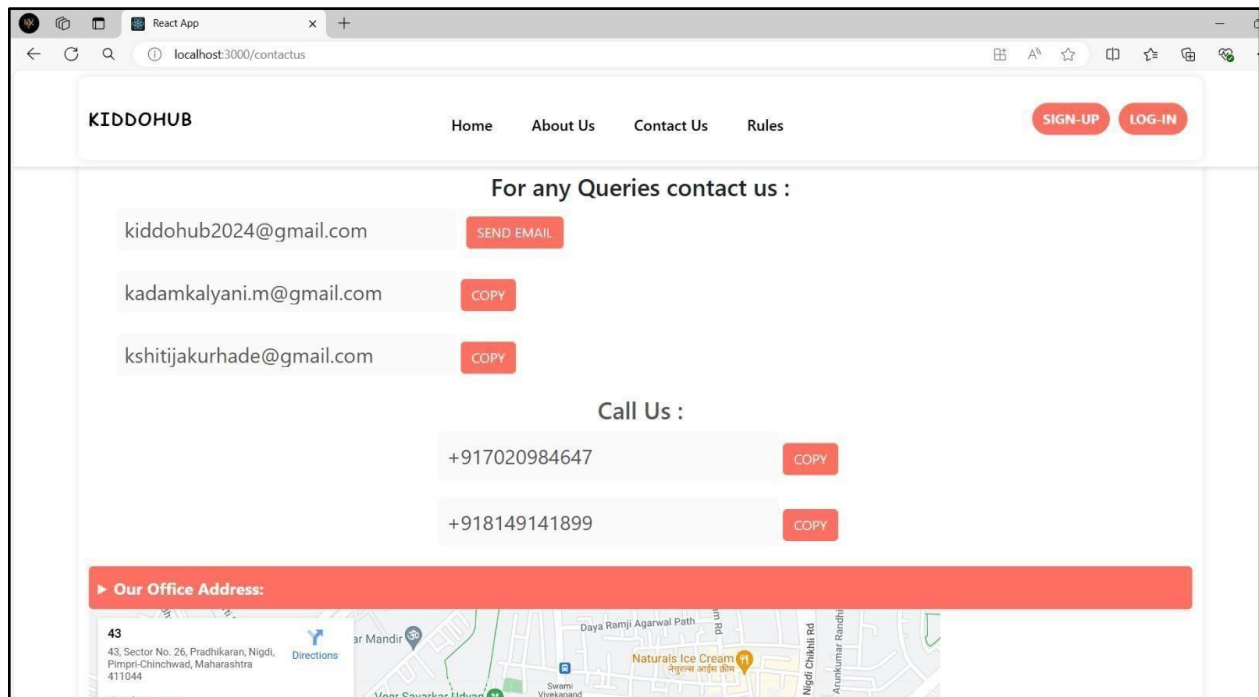
```
mysql> desc payments;
```

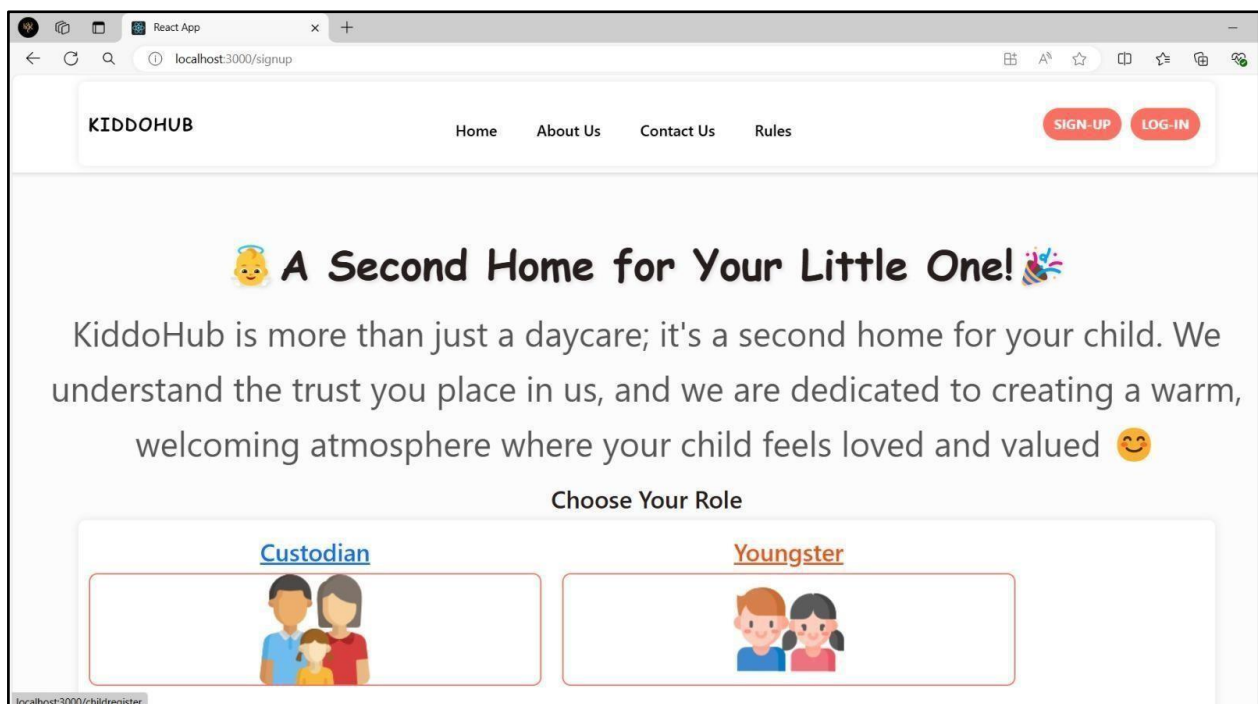
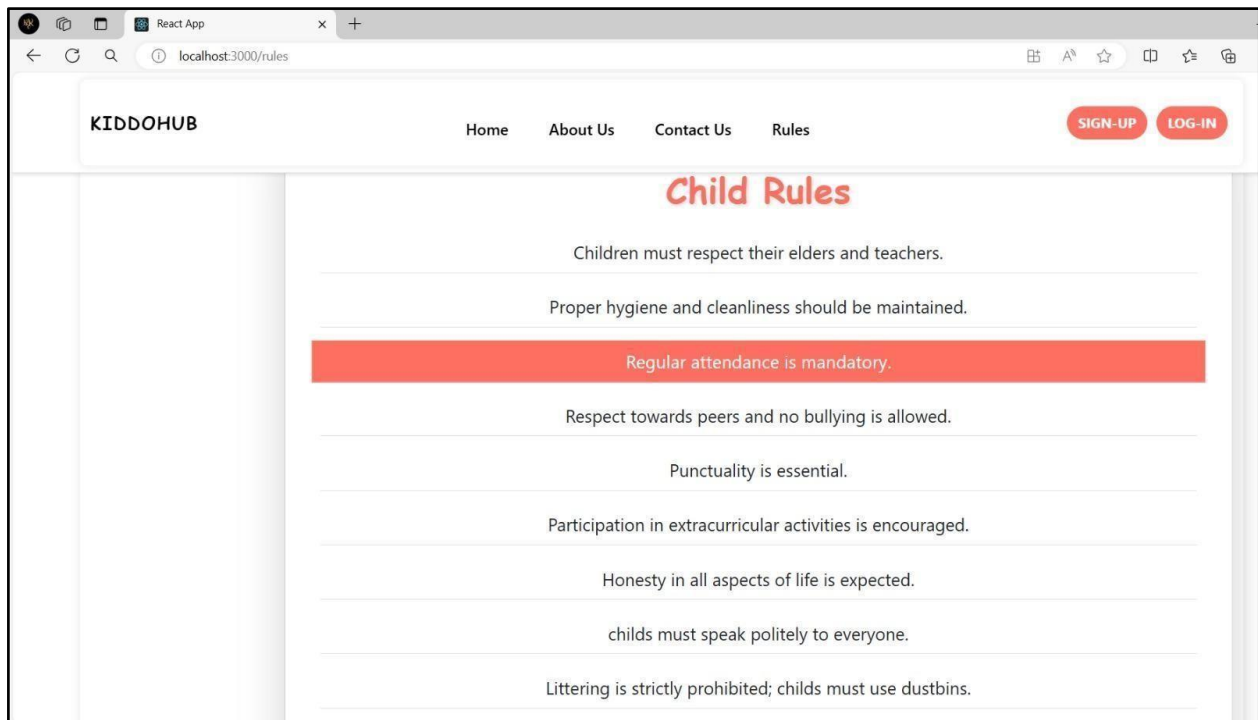
Field	Type	Null	Key	Default	Extra
transaction_id	bigint	NO	PRI	NULL	auto_increment
creation_date	date	YES		NULL	
updated_on	date	YES		NULL	
amount	int	NO		NULL	
date	date	YES		NULL	
payment_type	varchar(255)	YES		NULL	
parent_id	bigint	NO	MUL	NULL	

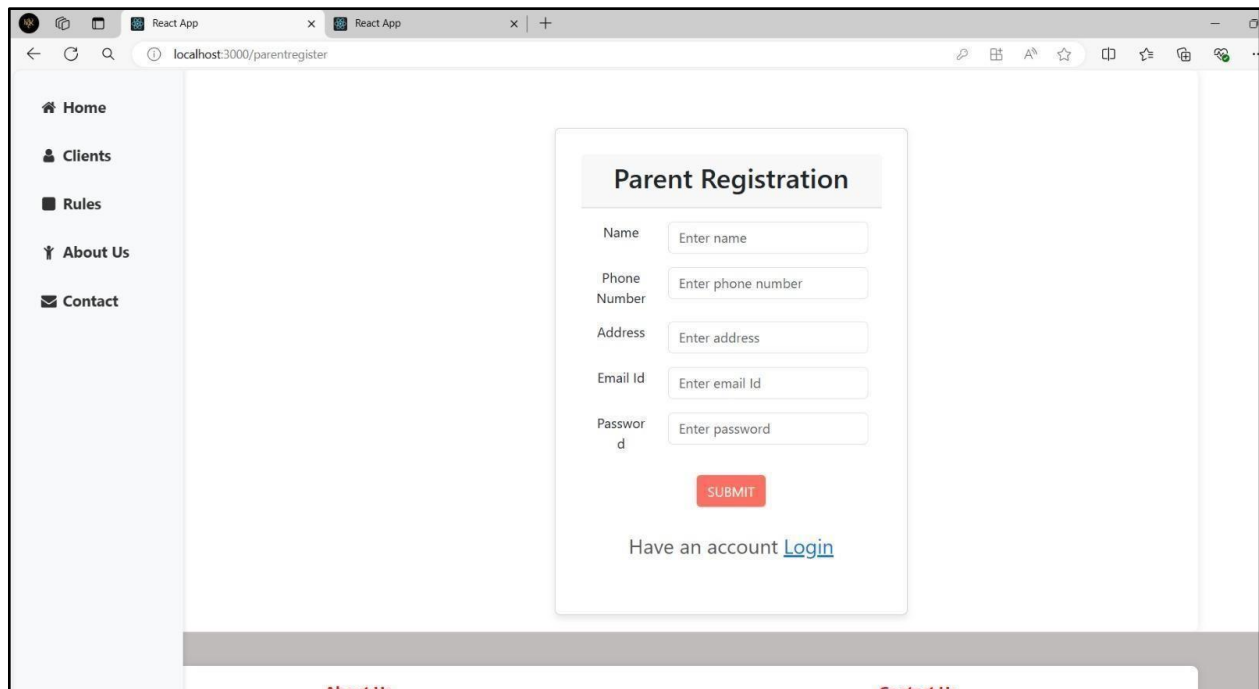
```
7 rows in set (0.00 sec)
```

7.SNAPSHOTS

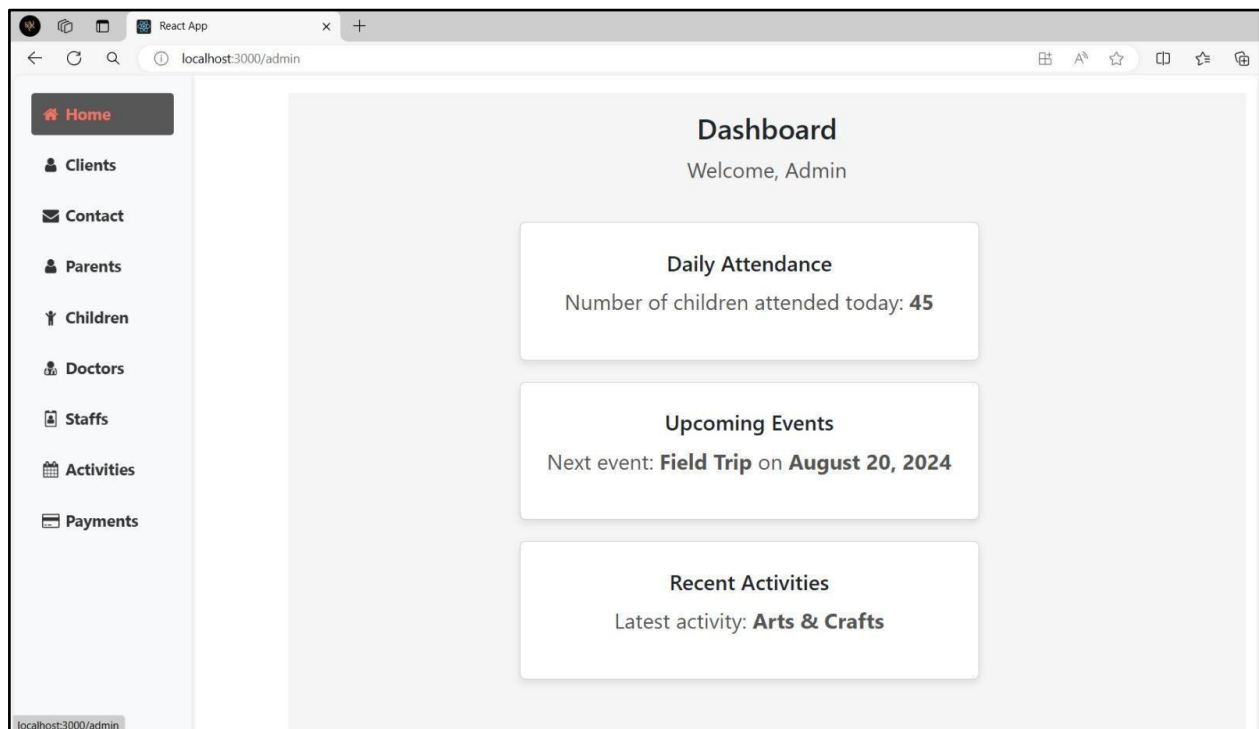








The screenshot shows a web browser window with two tabs labeled "React App". The address bar displays "localhost:3000/parentregister". On the left, a sidebar menu contains links for Home, Clients, Rules, About Us, and Contact. The main content area features a "Parent Registration" form with the following fields: Name, Phone Number, Address, Email Id, and Password. Each field has a placeholder text "Enter [field name]". Below the fields is a red "SUBMIT" button. At the bottom of the form, there is a link that says "Have an account [Login](#)".



The screenshot shows a web browser window with one tab labeled "React App". The address bar displays "localhost:3000/admin". On the left, a sidebar menu contains links for Home, Clients, Contact, Parents, Children, Doctors, Staffs, Activities, and Payments. The main content area is titled "Dashboard" and includes a welcome message "Welcome, Admin". Below this, there are three summary cards: "Daily Attendance" showing "Number of children attended today: 45", "Upcoming Events" showing "Next event: **Field Trip** on **August 20, 2024**", and "Recent Activities" showing "Latest activity: **Arts & Crafts**".

Parent Dashboard

ADD PARENT LOGOUT

Id	Address	EmailId	Name	PhoneNo	Action
1	Hariom niwas,Gadhwad, Latur,413511	kalyanikadam22jan@gmail.com	KALYANI	7020984647	DELETE UPDATE
2	Nashik	kshitija@gmail.com	Kshitija	6728822383	DELETE UPDATE
3	Dharashiv	maya@gmail.com	Maya	8828822343	DELETE UPDATE
4	Rajuri	naksh@gmail.com	Nakshatra	9228822343	DELETE UPDATE
5	Rajuri	bkm@gmail.com	Bhagawati	9228822343	DELETE UPDATE
6	Dharashiv	uma@gmail.com	Uma	9788822343	DELETE UPDATE
8	Dharashiv	mha@gmail.com	Mahadev Kadam	9988822343	DELETE UPDATE

Child Dashboard

ADD PARENT ADD CHILD LOGOUT

Child ID	Name	Date of Birth	Gender	Allergies	Medical Info	Emergency Contact	Email ID	Password	Registration Status	Action
1	KADAM	2024-08-09	FEMALE	abc	wuiiqo	9999998888	kk@gmail.com	Kadam@221	PENDING	DELETE UPDATE UPDATE STATUS
4	KADAM	2024-07-31	FEMALE	DFFedyu	wuiiqo	9999998888	yu@gmail.com	Kalyani@23	APPROVED	DELETE UPDATE UPDATE STATUS
5	BHAGAWATI KADAM	2024-08-07	FEMALE	yuqwiuiq	yuwqiq	2783849290	mk@gmail.com	Kadam@29	PENDING	DELETE UPDATE

Staff Dashboard

ADD STAFF LOGOUT

Id	Name	Email	Mobile No	Address	Joining Date	Post	Action
1	Radha	radha@gmail.com	9999900000	Pune	2024-08-14	DIRECTOR	DELETE EDIT
2	BH	bkm@gmail.com	9999900012	Nashik	2024-07-28	SUPERVISOR	DELETE EDIT
3	KADAM	kk@gmail.com	9999906712	Pune	2024-08-01	EDUCATOR	DELETE EDIT
5	Aghsdjhd	sgfhd@gmail.com	899990671	Pune	2024-08-05	SUPERVISOR	DELETE EDIT
6	Ryuyue	kkm@gmail.com	9999900015	Nashik	2024-08-06	ASSISTANT	DELETE EDIT

Doctor Dashboard

ADD DOCTOR UPDATE CHILD LOGOUT

Doctor ID	Name	Specialization	Phone No	Email ID	Password	Action
1	BH	Heart	9878943080	kkm@gmail.com	Kalyani@23	DELETE UPDATE
2	Kiran Trivedi	Head	7220651510	kt@gmail.com	Kal@1234	DELETE UPDATE
3	Asha Trivedi	Stomach	9220651510	at@gmail.com	Asha@123	DELETE UPDATE
4	Vaibhav	Stomach	9220651510	avt@gmail.com	Vaibhav@12	DELETE UPDATE
12	Vaishali	Brain	9220651510	vai@gmail.com	Vaishal@2	DELETE UPDATE
13	abc	Heart	9220651510	abt@gmail.com	Aghjkk@23	DELETE UPDATE
16	BH	Head	9920621510	bhm@gmail.com	Naghs@123	DELETE UPDATE

Activity Dashboard

ADD ACTIVITY LOGOUT

ActivityId	Name	Description	No of Childs	AgeGroup	Schedule	Action
1	Find fruit	Fun fruit	5	5 to 7	2024-08-19	DELETE EDIT
3	Hide and find	Hide and Seek	30	3 to 5	2024-08-20	DELETE EDIT
4	Hide and find	Hide and Seek	30	3 to 5	2024-08-20	DELETE EDIT
5	identify color	Color finder	6	2 to 3	2024-08-23	DELETE EDIT
6	identify color	Color finder	6	2 to 3	2024-08-23	DELETE EDIT
7	Read book	Read book	10	4 to 5	2024-08-22	DELETE EDIT

Payment Dashboard

ADD PAYMENT LOGOUT

TransactionId	Amount	Date	Payment Type	Action
1	20000	2024-08-16	ONLINE	DELETE EDIT
2	20000	2024-08-16	ONLINE	DELETE EDIT
3	10000	2024-08-14	CASH	DELETE EDIT
4	10000	2024-08-14	CASH	DELETE EDIT
5	15000	2024-08-05	ONLINE	DELETE EDIT
6	15000	2024-08-05	ONLINE	DELETE EDIT

Child Status Update Form

Child ID: 5

Registration Status: PENDING

SUBMIT

About Us

Kiddohub provides a nurturing environment for your child's growth and development. We ensure a safe and stimulating atmosphere where children can learn and play.

Contact Us

Email: kiddohub2024@gmail.com
 Phone: +91 7020 994 617
 Address: 43, Sector No. 26, Pradhikaran, Nigdi, Pimpri-Chinchwad, Maharashtra 411044

Child Dashboard

ADD PARENT **ADD CHILD** **LOGOUT**

Child ID	Name	Date of Birth	Gender	Allergies	Medical Info	Emergency Contact	Email ID	Password	Registration Status	Action
1	KADAM	2024-08-09	FEMALE	abc	wuiiiqo	9999998888	kk@gmail.com	Kadam@221	PENDING	DELETE UPDATE UPDATE STATUS
4	KADAM	2024-07-31	FEMALE	DFFedyu	wuiiiqo	9999998888	yu@gmail.com	Kalyani@23	APPROVED	DELETE UPDATE UPDATE STATUS DELETE

Child Login

Email ID

Password

LOGIN

About Us

Kiddohub provides a nurturing environment for your child's growth and development. We ensure a safe and stimulating atmosphere where children can learn and play.

Contact Us

Email: kiddohub2024@gmail.com

Phone: +91 7020 994 617

Address: 43, Sector No. 26, Pradhikaran, Nigdi, Pimpri-Chinchwad, Maharashtra 411044

GET IN TOUCH

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Home

Clients

Rules

About Us

Contact

LOGOUT

MAKE PAYMENT

Welcome BHAGAWATI KADAM

Your Details

ID	Name	Allergies	Medical Info	Email	Gender	Contact Number	Status
5	BHAGAWATI KADAM	yuqwiuiq	yuwiiq	mk@gmail.com	FEMALE	2783849290	PENDING

8. REFERENCES

<https://spring.io/guides/tutorials/rest>

<https://www.w3schools.com/REACT/default.asp> <https://www.w3schools.com/java/>

<https://getbootstrap.com/>

9.CONCLUSION

The daycare center's system is a comprehensive and thoughtfully designed solution that addresses the complexities of managing a childcare facility. By integrating various operational components into a unified platform, Each feature of the system from parent and child registration to staff management, activity scheduling, and fee payment is carefully integrated to create a cohesive and user-friendly environment.

In conclusion, the daycare center's system is more than just a collection of features; it is a holistic solution that enhances the daily operations of the center while ensuring a positive experience for all users. Through its robust, integrated design, the system supports the daycare center in delivering exceptional care, maintaining strong communication with families, and operating efficiently in a dynamic environment. This forward-thinking approach not only meets the current needs of the center but also positions it for future growth and success.

10. FUTURE SCOPE

As the daycare center continues to evolve, there are several key areas where future enhancements could significantly improve functionality, efficiency, and user experience. These include the integration of a payment gateway and advanced attendance monitoring systems.

1. Payment Gateway Integration

- **Secure Online Payments:** Implementing a secure payment gateway would allow parents to make tuition payments, activity fees, and other charges directly through the daycare center's website. This would streamline the payment process, reduce manual handling, and provide parents with convenient and flexible payment options.
- **Multiple Payment Methods:** The gateway could support various payment methods, including credit/debit cards, bank transfers, and digital wallets, catering to diverse user preferences.
- **Recurring Payments:** Enable parents to set up automatic recurring payments, reducing the risk of missed payments and ensuring timely fee collection.
- **Payment Notifications:** Automated notifications could be sent to parents reminding them of upcoming payment deadlines or confirming successful transactions.
- **Financial Reporting:** The payment gateway could be integrated with the admin dashboard to generate detailed financial reports, helping administrators track revenue, outstanding payments, and overall financial performance.

2. Attendance Monitoring

- **Digital Attendance Tracking:** Implement a digital attendance monitoring system that allows staff to record children's arrival and departure times using a secure, easy-to-use interface. This could be done via a mobile app, web portal, or even biometric devices.
- **Parental Notifications:** Automatically notify parents when their child has been checked in or out of the daycare, providing real-time updates on their child's attendance status.
- **Attendance Analytics:** Provide administrators with detailed analytics on attendance patterns, including absenteeism rates, late arrivals, and early pickups. This data can be used to identify trends and make informed decisions regarding staffing and resource allocation.
- **Integration with Child Profiles:** Attendance records could be linked to each child's profile, allowing caregivers to correlate attendance with developmental progress or other factors.
- **Visitor Management:** Extend the system to track visitors (e.g., grandparents, nannies) who are authorized to pick up children, ensuring added security and accountability.