

Team Collated Documentation

Project: School Activity Booking System

Team: Sanchit, Chichebendu, Shiva, Sharjeel

The Big Picture - What We Built

We built a complete **School Activity Booking Website**.

Imagine Amazon, but for School Clubs:

- Parents can shop for clubs (Swimming, Math, Art)
- They add to cart and pay
- They get receipts and calendar invites
- Teachers get class lists
- Admins manage everything

Who Did What? (The Dream Team)

We divided the work so everyone had a special job.

1. *Sanchit Kaushal (The Leader & Guard)*

Role: Security & Admin

- **Analogy**: He built the building, the locks on the doors, and the manager's office.

- **Key Jobs**:

- Login system (Who are you?)
- Security (Keep hackers out)
- Admin Panel (Control room)
- Putting it on the internet

2. *Chichebendu Blessed Umeh (The Messenger)*

Role: Emails & Integration

- **Analogy**: He is the postman and the secretary.

- **Key Jobs**:

- Sending confirmation emails
- Creating PDF invoices
- Making calendar invites
- Teacher's portal

3. *Shiva Kasula (The Brain)*

Role: Database & Logic

- **Analogy**: He is the filing clerk and the bouncer.

- **Key Jobs**:

- Database (Storing info)
- Rules (No double bookings!)
- Waitlist (The queue)
- Payments (The cash register)

4. *Mohd Sharjeel (The Artist)*

Role: UI/UX Design

- **Analogy**: He is the interior decorator and painter.

- **Key Jobs**:

- Colors and Fonts (The look)

- Mobile friendly (Works on phones)
 - Dashboard design (Easy to use)
 - Visual effects (Glassmorphism)
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How It All Works Together

- **Follow the Journey of a Booking**:
 - **Step 1: The Visit (Sharjeel's Work)**
 - Parent visits website on their phone.
 - It looks beautiful and fits the screen perfectly.
 - They see "Swimming" with a Green "Available" badge. - **Step 2: The Login (Sanchit's Work)**
 - Parent clicks "Login".
 - Types password.
 - Sanchit's security checks the password hash.
 - Access Granted! - **Step 3: The Booking (Shiva's Work)**
 - Parent clicks "Book Swimming".
 - Shiva's logic checks: "Is it full?", "Did they pay?"
 - Everything OK? -> Save to Database. - **Step 4: The Confirmation (Chichebendu's Work)**
 - Immediately, an email is sent.
 - "Ding!" Phone buzzes.
 - PDF Invoice attached.
 - Calendar event added to phone. - **Step 5: The Class (Everyone)**
 - Teacher logs in (Sanchit)
 - Checks list (Shiva)
 - Marks attendance (Chichebendu)
 - On a beautiful interface (Sharjeel)
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Technologies We Used (The Tools)

| Tool | What It Is | Why We Used It |
|----------|----------------------|---|
| Python | Programming Language | Easy to write, powerful |
| Flask | Web Framework | Builds websites fast |
| SQLite | Database | Stores our data simply |
| HTML/CSS | Design Code | Makes it look good |
| Git | Version Control | Lets us work together without overwriting |

Challenges We Solved

- **Problem 1: Double Booking**
- *Scenario*: Two parents try to book the LAST spot at the exact same second.
- *Solution (Shiva)*: "Database Transactions". The computer freezes for 0.01 seconds, lets one in, and tells the other "Sorry, full!".
- **Problem 2: Emails going to Spam**
- *Scenario*: Emails looked fake, so Gmail blocked them.
- *Solution (Chichebendu)*: Used professional SMTP settings and proper HTML templates. Now they hit the Inbox every time.
- **Problem 3: Hackers**
- *Scenario*: Bad people trying to fake forms.

- *Solution (Sanchit)*: CSRF Tokens. Secret codes on every form that hackers can't guess.
 - **Problem 4: Ugly on Phones**
 - *Scenario*: Website looked good on laptop, but tiny on phone.
 - *Solution (Sharjeel)*: "Responsive Design". The website changes shape like water to fit the phone.
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Conclusion

We built a professional, secure, and beautiful system. It solves a real problem for schools (messy paper forms) and makes life easier for parents, teachers, and admins.

Project Status: ■ Complete & Ready for Use!