Digital Nabha: School Registration & Access Control Flow

1. Introduction

This document outlines the structured registration and permission hierarchy for the **Digital Nabha** platform. It ensures that only authorized principals, teachers, and students from verified government schools in the Nabha region can access the platform, maintaining security and organized management.

2. Registration Hierarchy & Flow

The registration process follows a top-down approach, starting with the School Principal.

3. Step-by-Step Process Explanation

Step 1: School Registration (Principal Level)

The Principal of a school initiates the registration process on the Digital Nabha web portal.
Data Collected:
- School Name
- UDISE Code
- Principal's Name & Official Contact Information
- School Address (Block, Village, District)
Output: The system generates a Unique School ID (e.g., SCH_NABHA_101).

Step 2: Principal Access & Permissions

Once registered, the Principal receives access to an Admin Dashboard.
Permissions Granted:
- Approve/Reject Teacher Registrations
- Assign Roles to teachers
- Set a default language
- View aggregated reports

Step 3: Teacher Registration (Linked to School)

Teachers must register using the Unique School ID provided by their Principal.
Process:
1. Teacher downloads the app or portal
2. Select 'Register as Teacher' and enter School ID
3. Principal approves/rejects
Permissions Granted:
- Manage students
- Upload and assign content
- View reports

Step 4: Student Registration (By Teacher)

Teachers register students via bulk CSV or manual entry.
Output: System generates Student ID (e.g., STU_101_6A_01) and credentials.

Step 5: Student Login & Data Sync

Students use credentials to login.
- Choose preferred language
- Learning activity is recorded
- Syncs to teacher & principal dashboards when connected.

4. Data Structure (Backend Perspective)

4.1 School Table

Field	Example Data	Description
school_id	SCH_NABHA_101	Unique System-generated ID
school_name	Govt. Senior Secondary School, Nabha	
udise_code	03120702710	Official UDISE Code
principal_id	PRIN_2285	Link to Principal's account
default_lang	Punjabi	School's default language

4.2 Teacher Table

Field	Example Data	Description
teacher_id	TCH_7712	Unique System-generated ID
school_id	SCH_NABHA_101	Foreign Key
name	Gurpreet Singh	
subject	Mathematics	
status	APPROVED	Status: PENDING/APPROVED/REJECTED

4.3 Student Table

Field	Example Data	Description
student_id	STU_101_6A_01	Unique System-generated ID
school_id	SCH_NABHA_101	Foreign Key
teacher_id	TCH_7712	Foreign Key
name	Manjit Kaur	
class	6A	
preferred_lang	English	Overrides school default

5. Benefits of This Structure

- **Security:** Prevents unauthorized access.
- **Accountability:** Every student and teacher is linked.
- **Data Integrity:** Clean, organized data for accurate reports.
- **Scalability:** Can scale to all schools in Nabha and Punjab.