Institution Management System

# System access

We can give access to

1. **Admin**: The soul authority to do things.
2. **Teachers**: The authority of educational data and access to all data.
3. **Parents**: They can access all the data of all their dependents.

**\* Providing authentication for every stakeholder needed a proper cloud services. Firebase could be better choice for us.**

***“ I prefer to use email link authentication as it will make it more secure and easy for verification every time.”***

# System Levels

**Level-1:** Admin authentication. (Both **online** & **offline** methods)

**Level-2:**  Teacher authentication.

**Level-3:**  Parents authentication.

# Features

1. Activity logs.
2. Login & Registrations.
3. Notifications & reminders.
4. Student’s details & documents.
5. Staff details & documents.
6. Admission process.
7. Student’s payment data. (fee categories, concession)
8. Institution’s transaction data. (vouchers)
9. Progress data of a student with link.
10. Teacher’s attendance.
11. Student’s attendance.
12. Time table generation.
13. Syllabus planning.
14. Examination Planning. (Admit cards / Due list / Sitting plan)
15. Tours & extracurricular activities.
16. Upgrade functions.
17. Dashboard & Accountings.
18. System Backup.
19. Cloud Backup.

# Security features

1. System Backup
2. Cloud Backup
3. Activity logs

# Activity logs

This records every action on the system. So that **no error occurs** & there will be a **transparency** in the system.

Are we going to have a single datasheet for all the activities?

Yes, we are doing. So but with attaching the ID of the person from LOGIN sheet.

**Example**

Transactions sheet

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Amount | Mode | Sheet ID | Link ID | Activity ID ***(FK)*** |
| 0001 | 5000 | SBI | STUD PAY | 005 | 0001 |
| 0002 | -2000 | CASH | VOCH PAY | 008 | 0002 |

Activity sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Comment | Prev ID | Time | User ID |
| 0001 | 5000 Paid by - to – for stud payment | - | 02:11:2021 ; 05:30:PM | 1 |
| 0002 | Given to – by – for voucher | - | 02:11:2021 ; 05:45:PM | 1 |

We have modified the first transaction to 10000 due to an error in entry.

**After Change**

Transactions sheet

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Amount | Mode | Sheet ID | Link ID | Activity ID  ***(FK)*** |
| 0001 | 10000 | SBI | STUD PAY | 005 | 0003 |
| 0002 | -2000 | CASH | VOCH PAY | 008 | 0002 |

Activity sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Comment | Prev ID | Time | User ID |
| 0001 | 5000 Paid by - to – for stud payment | - | 02:11:2021 ; 05:30:PM | 1 |
| 0002 | Given to – by – for voucher | - | 02:11:2021 ; 05:45:PM | 1 |
| 0003 | 5000 modified to 10000 due to an error in entry | 0001 | 02:11:2021 ; 05:55:PM | 1 |

Here,

1. We have added a new activity log for the modification.
2. We have given the initial transaction’s activity log ID to new activity log as a pervious log ID.
3. We have updated the amount to 10,000 in both STUD Pay & transaction Sheet. We have updated the new log ID to the transaction.

**Logic:**

We can recursively get to know an activity logs of any transactions completely.

**Further expansion - Questions:**

How do we make the access levels for the user? Designing a separate design for them.

# Login & Registrations.

Here we have **three sheets based on user level**.

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Mail** | **Password** | **UserID** |
| 001 | [Rpranayreddy40@gmail.com](mailto:Rpranayreddy40@gmail.com) | 537537537 | 500 |
| 002 | [Rpranayreddy40@icloud.com](mailto:Rpranayreddy40@icloud.com) | 537537537 | 200 |

Here, **User ID is a foreign key to the stakeholders sheet.**

*Stakeholders sheet gives a unique ID to every user in the environment.*

**\*\*Password can be encrypted.**

# Notifications & reminders.

This sheet serves the purpose of both notification & reminder.

Where reminder is just a customized notification.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Created Time** | **Trigger Time** | **Iterations** | **Duration** | **Level** | **Action** | **Text** |
| 08:05:00 AM; 02/11/2020 | 10:00:00 AM  01/01/2021 | -1 | 1 year | 0 | 005 | Happy New year. We wish….. |
|  |  |  |  |  |  |  |

Here,

**Created time:** time of creation.

**Trigger Time:**  When to pop the notification.

**Iterations:**  no of time it should be triggered. (“-1” is a loop iteration)