GEETANJALI COLLAGE-RAJKOT

Hostel Management System Documentation Name- Hostel Management System

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**Abstract:**

The hostel management system efficiently allocates rooms to students, ensuring each room accommodates up to a maximum of three students. It tracks room availability, student assignments, and facilitates easy management of hostel operations. This system improves organization, reduces manual errors, and enhances student satisfaction.

**Key Features:**

1. Room and Bed Management:

- Allocation and deallocation of rooms and beds.

- Room categorization based on type, capacity, and amenities.

- Real-time availability status.

2. Student Information System:

- Comprehensive student profiles including personal details, contact information, and emergency contacts.

- Integration with student ID systems.

3. Fee Management:

- Payment .

4. Inventory and Maintenance Management:

- Tracking of hostel assets and inventory.

- Maintenance request and management system.

**System Modules:**

1. **Student Registration :**

Handles the registration of new students, capturing essential details such as personal information, academic records, and guardian contact information. This module ensures that the admission process is efficient and accurate.

1. **Room Allocation Module:**

Automates the allocation of rooms based on predefined criteria such as student preferences, availability, and seniority. It allows for easy tracking of room assignments and changes.

1. **Fee Management Module**:

Manages the financial aspects of the hostel, including fee collection, payment tracking

1. **.Inventory Management Module:**

Keeps track of hostel assets and supplies, ensuring that inventory levels are maintained and requisitions are handled promptly. This module aids in the proper management of resources such as furniture, electronics, and consumables.

**Technology Stack:**

* Frontend: java.

* Backend: java.

* Database: SQL Server for data storage and retrieval.

# Database Table Details

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Student** **Table** | | | | |
| **Column Name** | | **Data Type** | **Description** | |
| Student\_id | | int (primary Key auto increment) | Unique identifier for each student | |
| First\_name | | varchar(50) | First name of the student | |
| Last\_name | | varchar(50) | Lastname of the student | |
| dob | | date | Date of the birth of student | |
| Gender | | Varchar(10) | Gender of student | |
| ContactNumber | | varchar(20) | Student contact number | |
| Email | | varchar(100) | Student 's email | |
| Address | | varchar(255) | Student ‘s address | |
| Father\_name | | Varchar(50) | Student father name | |
| Father\_contact | | Varchar(50) | Father contact number | |
| **Room** **Table** | | | | |
| Room\_id | int (primary Key auto increment) | | | Unique identifier for each room |
| Room\_number | Varchar(10) | | | Room number |
| capacity | int | | | Maximum number of student in the room |
| occupie | int | | | Number of student in the room |
| **Room** **Allocations** **Table** | | | | |
| Allocation\_id | int (primary Key auto increment) | | | Unique identifier for each room allocation |
| Student\_id | Int (foregin key) | | | Reference to the student being allocated |
| Room\_id | int (foregin key) | | | Reference to the room being allocated |
| Allocation\_date | date | | | Date when the room was allocate |

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|  | **Fees Table** | | |
| Fee\_id | int (primary Key auto increment) | Unique identifier for each fee entry |
| Student\_id | Int(foregin Key) | Reference to the student for whom the fee is charged | |
| amount | **int** | Amount of the fee | |
| Payment\_date | **Date** | Date when fee was paid | |
| **status** | **Varchar(20)** | Status of the fee | |
| **Inventory** **Table** | | | |
| Item\_id | int (primary Key auto increment) | Unique identifier for each inventor | |
| **Item\_name** | **varchar(100)** | Name of the inventory item | |
| quantity | **int** | Quantity of the inventory item available | |

**Benefits:**

* Enhanced Efficiency:-

Automates administrative task, reducing workload and errors.

* Improved Resource Management:-

Ensures optimal utilization and maintenance of hostel resources.

* Transparent Communication:-

Facilitates better communication between administration and student.

* Comprehensive data management:-

Management student data easy and track.

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| Professor’s sign | created and design by  **Udaysoni** |