**Database Structure**

**Table Name-attendance**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| date | DATE | PK Not Null |
| fac\_id | VARCHAR(10) | PK Not Null |
| subject\_id | VARCHAR(10) | Not Null |
| student\_id | VARCHAR(10) | PK Not Null |

**Index-** att\_index(subject\_id,date)

**Table Name-courses**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| courseid | VARCHAR(10) | PK Not Null |
| name | VARCHAR(45) | Not Null |
| noofsem | INTEGER | Not Null |

**Table Name-department**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| dept\_id | VARCHAR(10) | PK Not Null |
| name | VARCHAR(45) | Not Null |
| hod\_id | VARCHAR(10) | Not Null |

**Table Name-employee**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| emp\_id | VARCHAR(10) | PK Not Null |
| name | VARCHAR(45) | Not Null |
| address\_per | VARCHAR(45) | Not Null |
| address\_res | VARCHAR(45) | Not Null |
| phoneno | BIGINT(20) | Not Null |
| email | VARCHAR(45) | Not Null |
| qual | VARCHAR(45) | Not Null |
| exp | INTEGER | Not Null |
| dob | DATE | Not Null |
| doj | DATE | Not Null |
| salary | BIGINT(20) | Not Null |
| gender | VARCHAR(7) | Not Null |
| dept\_id | VARCHAR(10) | FK Not Null |
| type | VARCHAR(20) | Not Null |

**Table Name-hostel**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| Type | VARCHAR(45) | Not Null |
| hostel\_name | VARCHAR(45) | PK Not Null |
| location | VARCHAR(45) | Not Null |
| no\_of\_floors | INTEGER | Not Null |
| rooms\_of\_floor | INTEGER | Not Null |

**Table Name-hosteller**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| roomno | INTEGER | PK Not Null |
| hostel\_name | VARCHAR(45) | Not Null |
| student\_id | VARACHAR(10) | Not Null |

**Table Name-login**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| userid | VARCHAR(10) | PK Not Null |
| userpass | VARCHAR(30) | Not Null |
| usertype | VARCHAR(30) | Not Null |
| status | VARCHAR(10) | Not Null, by default ‘true’. |

**Table Name-marks**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| subject\_id | VARCHAR(10) | FK Not Null, PK |
| fac\_id | VARCHAR(10) | Not Null, PK |
| student\_id | VARCHAR(10) | FK Not Null,PK |
| int\_marks | INTEGER | Not Null, default value 0 |
| ext\_marks | INTEGER | Not Null, default value 0 |
| batch | VARCHAR(10) | Not Null |

**Index-** marks\_index(subject\_id,student\_id)

**Table Name-message**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| message\_id | INTEGER | PK autoincrement |
| sender\_id | VARCHAR(10) | Not Null |
| receiver\_id | VARCHAR(10) | Not Null |
| subject | VARCHAR(45) | Not Null |
| mtext | LONGTEXT | Not Null |
| date | DATE | Not Null |
| rstatus | VARCHAR(10) | Not Null by default false |
| sstatus | VARACHR(10) | Not Null by default false |

**Table Name-resources**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| name | VARCHAR(45) | PK Not Null |
| total | INTEGER | Not Null |
| allotted\_to | VARCHAR(45) | PK Not Null |
| allot\_quantity | INTEGER | Not Null |
| date\_allotted | DATE | Not Null |
| return\_date | DATE | By default Null |

**Table Name-student**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| rollno | VARCHAR(10) | PK Not Null |
| name | VARCHAR(30) | Not Null |
| address | VARCHAR(45) | Not Null |
| email | VARCHAR(45) | Not Null |
| gender | VARCHAR(7) | Not Null |
| dob | DATE | Not Null |
| doa | DATE | Not Null |
| current\_sem | INTEGER | Not Null by default 1 |
| course\_id | VARCHAR(10) | FK Not Null |
| phoneno | BIGINT(20) | Not Null |
| hostel | BOOLEAN | Not Null by default 0 |
| pass\_yr | VARCHAR(10) | Not Null |

**Index –**student\_index(rollno,course\_id,pass\_yr)

st\_index(course\_id,pass\_yr)

**Table Name-subjects**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| sub\_id | VARCHAR(10) | PK Not Null |
| name | VARCHAR(45) | Not Null |
| course\_id | VARCHAR(10) | PK, FK Not Null |
| fac\_id | VARCHAR(10) | FK Not Null |
| sem | INTEGER | Not Null |

**Index-** sub\_index(courseid,sem)

**Table Name-visitor**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data type** | **Constraints** |
| sno | INTEGER | PK Not Null autoincrement |
| date | DATE | Not Null |
| v\_name | VARCHAR(45) | Not Null |
| vehicle\_no | VARCHAR(20) | Not Null |
| p\_name | VARCHAR(45) | Not Null |
| ptype | VARCHAR(20) | Not Null |
| time\_in | TIME | Not Null |
| time\_out | TIME | Not Null |
| phoneno | BIGINT(20) | Not Null |