**Data Dictionary**

# General

1. **Users**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | User primary key | 2 |
| email | VARCHAR(512) | NOT NULL, UNIQUE | User Email | hello@example.com |
| password | VARCHAR(512) | NOT NULL | User password, it should be hashed for security reasons | xha2876scugvcw76220?w24486vd |
| profile\_pic | VARCHAR(512) | NULL | A user’s own personal profile picture for customizability purposes | users/2/v28vfr82.png |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **Roles**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| user\_id | INT | FOREIGN\_KEY | Which user this role entity belongs to | 3 |
| role | VARCHAR(255) | NOT NULL | This can either be a student, personnel, teacher, or author. | student |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **UserRoles**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| user\_id | INT | FOREIGN\_KEY | Which user this role entity belongs to | 3 |
| role\_id | INT | FOREIGN\_KEY | The foreign key that connects the roles table | 7 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

# Website Front

1. **Authors**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| user\_id | INT | FOREIGN\_KEY | Which user this author belongs to | 3 |
| first\_name | VARCHAR(255) | NOT NULL | User password, it should most likely be hashed for safety | امیررضا |
| last\_name | VARCHAR(255) | NOT NULL | This can either be student, personnel, teacher, or null | قاسمی |
| profile\_pic | VARCHAR(512) | NULL | A user’s own personal profile picture for customizability purposes | users/2/v28vfr82.png |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **Announcements**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| user\_id | INT | FOREIGN\_KEY | Which user this role entity belongs to | 3 |
| role\_id | INT | FOREIGN\_KEY | The foreign key that connects the roles table | 7 |
| title | VARCHAR(512) | NOT NULL | The title of the announcement | Attention! We have a problem |
| content | TEXT | NOT NULL | The contents of the Announcement | Today our location has been…. |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **Articles**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| author\_id | INT | FOREIGN\_KEY | Which author this blog entity belongs to | 3 |
| title | VARCHAR(512) | NOT NULL | Title of the article | We have something |
| content | TEXT | NOT NULL | Contents of the article | Today our location… |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **Comments**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| article\_id | INT | FOREIGN\_KEY | Which article this comment belongs to | 3 |
| user\_id | INT | FOREIGN\_KEY | Which user wrote this comment | 4 |
| content | VARCHAR(512) | NOT NULL | Title of the article | We have something |
| comment\_id | TEXT | NULL | Is this comment a reply? | 1 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. **Favorites**

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| blog\_id | INT | FOREIGN\_KEY | Which blog this comment belongs to | 3 |
| user\_id | INT | FOREIGN\_KEY | Which user wrote this comment | 4 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

# Management System

## Tables

1. Students

| **Filed Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key for a student entry | 120 |
| user\_id | INT | FOREIGN\_KEY | Foreign key, a one way connection to a user entry. | 1 |
| first\_name | VARCHAR(255) | NOT NULL | First name | امیررضا |
| last\_name | VARCHAR(255) | NOT NULL | Last name | قاسمی |
| fathers\_name | VARCHAR(255) | NOT NULL | Father’s name | وحید |
| year\_of\_birth | INT | NOT NULL | Only the year of birth is necessary, an accurate age is not necessary to find. | 1983 |
| phone\_number | VARCHAR(32) | NOT NULL | Phone number, it is assumed it is Iranian | 09118435746 |
| education\_level | VARCHAR(128) | NOT NULL | This data point is necessary to be able to choose the correct courses. | 1-3, bachelors, 4-6, 7-9, 10-12 |
| personnel\_photo | VARCHAR(512) | NOT NULL | An official personnel photo of a student, stored on website’s public storage | students/120/sdojbwofbouefe.png |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Teachers

| **Filed Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key for a personnel entry | 120 |
| user\_id | INT | FOREIGN\_KEY | Foreign key, a one way connection to a user entry. | 1 |
| first\_name | VARCHAR(255) | NOT NULL | First name | امیررضا |
| last\_name | VARCHAR(255) | NOT NULL | Last name | قاسمی |
| fathers\_name | VARCHAR(255) | NOT NULL | Father’s name | وحید |
| year\_of\_birth | INT | NOT NULL | Only the year of birth is necessary, an accurate age is not needed. | 1975 |
| phone\_number | VARCHAR(32) | NOT NULL | Phone number, it is assumed it is Iranian | 09118435746 |
| education\_level | VARCHAR(128) | NOT NULL | A simple education level will suffice for most usages | bachelors |
| educational\_license | VARCHAR(512) | NOT NULL | It is a directory, a scan of a university level education license or proof of education | teachers/120/q7276.pdf |
| national\_id | VARCHAR(16) | NOT NULL | National ID, It is VARCHAR so that string behavior is enforced as it’s not supposed to be treated as integer | 2730305126 |
| national\_card | VARCHAR(512) | NULL | It is a directory, an image or pdf scan of national\_card | teachers/120/2y6fd76.png |
| identification | VARCHAR(512) | NULL | It is a directory, an image or pdf scan of identification | teachers/120/2876sf4eg3.png |
| personnel\_photo | VARCHAR(512) | NULL | An official personnel photo of a personnel, stored on website’s public storage | teachers/120/2g87fd.png |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Personnels

| **Filed Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key for a personnel entry | 120 |
| user\_id | INT | FOREIGN\_KEY | Foreign key, a one way connection to a user entry. | 1 |
| first\_name | VARCHAR(255) | NOT NULL | First name | امیررضا |
| last\_name | VARCHAR(255) | NOT NULL | Last name | قاسمی |
| fathers\_name | VARCHAR(255) | NOT NULL | Father’s name | وحید |
| phone\_number | VARCHAR(32) | NOT NULL | Phone number, it is assumed it is Iranian | 09118435746 |
| education\_level | VARCHAR(128) | NOT NULL | A simple education level will suffice for most usages | bachelors |
| educational\_license | VARCHAR(512) | NOT NULL | It is a directory, a scan of a university level education license or proof of education | personnels/120/q7276.pdf |
| national\_id | VARCHAR(16) | NOT NULL | National ID, It is VARCHAR so that string behavior is enforced as it’s not supposed to be treated as integer | 2730305126 |
| national\_card | VARCHAR(512) | NULL | It is a directory, an image or pdf scan of national\_card | personnels/120/2y6fd76.png |
| identification | VARCHAR(512) | NULL | It is a directory, an image or pdf scan of identification | personnels/120/2876sf4eg3.png |
| personnel\_photo | VARCHAR(512) | NOT NULL | An official personnel photo of a personnel, stored on website’s public storage | personnels/120/2g87fd.png |
| year\_of\_birth | INT | NOT NULL | Only the year of birth is necessary, an accurate age is not necessary to find. | 1975 |
| role | VARCHAR(128) | NOT NULL | The role that the personnel has within the institution, any role other than a teacher | secretary |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Books

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| name | VARCHAR(255) | NOT NULL, UNIQUE | Name of book | Family & Friends 1A |
| price | VARCHAR(128) | NULL | The last recorded price from the publisher, this value can be changed periodically | 200 T |
| cover | VARCHAR(512) | NULL | An optional image of the book cover | books/2/v2vfr82.png |
| files | VARCHAR(512) | NULL | It is a directory, some books have CD files or workbooks that could be useful | books/2/files/ |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Classes

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| teacher\_id | INT | FOREIGN\_KEY | The teacher that owns the class | 6 |
| book\_id | INT | FOREIGN\_KEY | A class is based on an existing book in database | 1 |
| base\_fee | VARCHAR(120) | NOT NULL | How much base fee is required for enrolling in class | 800,000T |
| teacher\_fee | VARCHAR(512) | NOT NULL | The teacher fees for each session | 20,000T |
| held\_sessions | INT | NOT NULL | The overall number of sessions held, changes dynamically during runtime | 0 |
| min\_sessions | INT | NOT NULL | The default minimum number of sessions that this class needs | 18 |
| started\_at | TIMESTAMP | NULL | A class can be created but still not be started | 2025-02-05 20:23:45 |
| ended\_at | TIMESTAMP | NULL | The date in which the class officially ends. After that the class is archived and preserved for record keeping. | 2025-02-05 20:23:45 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Timeslots

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| day | INT | VARCHAR(128) | The day of the week | saturday |
| capacity | INT | BYTE(1) | How many sessions can take place on this timeslot | 4 |
| start\_time | TIMESTAMP | NULL | When it starts | 15:30:00 |
| end\_time | TIMESTAMP | NULL | When it ends | 17:00:00 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. ScheduledClasses

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| class\_id | INT | FOREIGN\_KEY | The class | 1 |
| timeslot\_id | INT | FORIEGN\_KEY | The time slot that has been taken by class | 2 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Sessions

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| class\_id | INT | FOREIGN\_KEY | What class this session belongs to | 1 |
| date\_held | TIMESTAMP | NULL | Which time slot did this session take place in | 2025-02-05 15:31:10 |
| canceled | LITTLEINT(1) | NOT NULL | A boolean stating if the session got canceled | 0 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Attendances

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| session\_id | INT | FOREIGN\_KEY | What session this attendance belongs to | 1 |
| student\_id | INT | FOREIGN\_KEY | Which student this attendance belongs to | 2 |
| details | VARCHAR(512) | NULL | Some extra details if the teacher deems it necessary to include | The student was especially well-mannered today.. |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |

1. Enrollments

| **Field Names** | **Data Type** | **Constraints** | **Description** | **Sample Data** |
| --- | --- | --- | --- | --- |
| id | INT | PRIMARY\_KEY, AUTO\_INCREMENT | Primary Key | 2 |
| class\_id | INT | FOREIGN\_KEY | What class this session belongs to | 1 |
| student\_id | INT | FOREIGN\_KEY | Which time slot did this session take place in | 5 |
| base\_fee\_owed | VARCHAR(255) | NOT NULL | The amount of the base fee the student owes | 800,000T |
| book\_fee\_owed | VARCHAR(255) | NOT NULL | The amount of the book fee the student owes | 0T |
| attendance | INT | NULL | From 0 to 100, a grade for attendance | 0 |
| midterm | INT | NULL | From 0 to 100, a grade for midterms | 56 |
| final | INT | NULL | From 0 to 100,a grade for finals | 80 |
| overall | INT | NULL | From 0 to 100, the overall grade | 100 |
| created\_at | TIMESTAMP | NOT NULL | Timestamp for the creation of this data entry | 2025-02-05 20:23:45 |
| updated\_at | TIMESTAMP | NOT NULL | Timestamp for the time of last update, can equal created\_at if it was not updated | 2025-02-05 20:23:45 |