A blue and white logo

AI-generated content may be incorrect.

**بسم الله الرحمن الرحیم**

**سامانه نرم افزاری آموزشگاه زبان انگلیسی کلام نو**

**سند اقلام داده‌ای**

اعضای تیم پروژه:

**محمدصالح صدیقی**

**امیرحسین بصیرت**

**پوریا سعید**

**یگانه قیومی**

استاد راهنما:

**علی نقاش اسدی**

**فروردین 1404**

|  |  |  |  |
| --- | --- | --- | --- |
| تاریخ | نسخه | ویرایشگر | توضیحات |
| 17/01/1404 | 1 | امیرحسین بصیرت | نسخه اولیه موجودیت‌ها اضافه شد |
| 05/02/1404 | 2 | محمدصالح صدیقی  امیرحسین بصیرت  پوریا سعید | سند به طور کامل بازنویسی شد و نمودار ER بازترسیم شد و پیوست شد |
| 28/02/1404 | 2.1 | امیرحسین بصیرت | تغییر و بهینه سازی موجودیت‌ها |
| 30/02/1404 | 2.2 | محمدصالح صدیقی | ویراستاری |
| 02/03/1404 | 2.3 | محمدصالح صدیقی | اضافه شدن جدول تعیین سطح |

**اقلام داده‌ای**

کاربر - User

تمام کاربران سایت از جمله دانش‌آموزان، معلمان، افراد پرسنل، و غیره را شامل می شود.

نقش - Role

هر کاربر می تواند یک یا بیشتر نقش داشته باشد. نقش ها در سامانه مدیریت دسترسی‌ها را مشخص می‌کنند و صفات مخصوص به نقش را نگه می‌دارند. به ازای بعضی نقش‌ها،‌ موجودیت کاربر می‌تواند با یک موجودیت دیگر رابطه برقرار کند. (مانند موجودیت معلم که در سامانه مدیریت جدا از کاربر عادی در نظر گرفته می‌شود). به صورت پیش‌فرض نقش‌ها دانش‌آموز، معلم، کارکنان، مدیر و نویسنده تعیین شده اند.

مقاله - Article

انواع نوشته‌های آموزشی و خبری که در وب‌سایت بارگزاری می‌شوند.

اعلانات آموزشگاه - Institue Announcement

اعلانات کلی آموزشگاه که در وبسایت قابل مشاهده می باشد.

معلم - Teacher

یک نوع از کاربران که نقش معلم را می‌گیرند و دسترسی های مخصوصی دارند. این نمونه در رابطه‌ها مختص به سامانه مدیریت حضور خواهد داشت. دلیل جدا شدن از باقی کاربران، صفات اضافه مخصوص معلم است.

کلاس - Class

هر کلاس اشاره به یک دوره آموزشی در یک سال ترم خاص اشاره دارد که توسط فقط یک معلم تعلیم داده می‌شود و هر کلاس مربوط به یک کتاب خواهد بود.

* هر کلاس که در هر زمان ساخته می‌شود منحصر به فرد خواهند بود.
* هر کلاس یک تاریخ شروع و پایان دارند. در زمانی که کلاس اتمام نرسیده است تاریخ پایان مقدار Null خواهد گرفت.
* هر کلاس یک مقدار کم‌ترین جلسات برگزاری خواهد داشت که مشخص می کند حداقل چند جلسه برای این کلاس نیاز است تا تشکیل شود.
* هر کلاس یک میزان هزینه پرداختی پایه دارد که دانش‌آموز بابت آن کلاس پرداخت می کند.
* هر کلاس حقوق هر جلسه معلم را تعیین می‌کند.
* هر کلاس به یک کتاب متصل است که مشخص می کند این کلاس بر اساس چه کتابی تدریس می شود.

ثبت‌نام - Enrollment

هر دانش‌آموز برای اینکه در کلاس بتواند شرکت کند نیاز دارد که ثبت‌نام انجام دهد. هر ثبت‌نام اطلاعات مربوط به بدهی بابت کلاس، معدل و نمرات کلاس هنگام پایان یافتن خواهد داشت.

کتاب - Book

کتاب‌ ها درسی تعیین شده برای سامانه به این موجودیت شناخته می شود. برای دانستن هزینه کتاب، آخرین هزینه خرید کتاب نگه‌داری می‌شود.

اعلانات‌کلاس - Class Announcement

اعلاناتی و اطلاعیه‌هایی که توسط معلم هر کلاس ارسال می‌شود و مختص دانش‌آموزان همان کلاس است.

جلسه - Session

هر کلاس، چندین جلسه قابل تشکیل دارد. معلم می تواند در هر جلسه حضور و غیاب بکند.

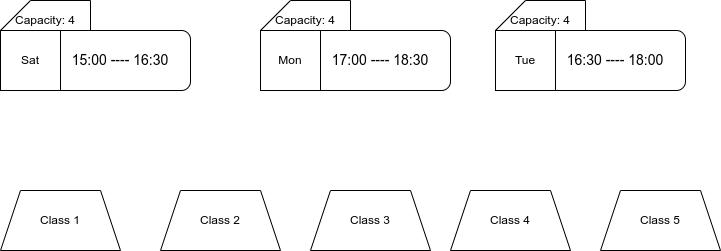
تعیین سطح - Level determination test

هر دانش‌آموز برای ثبت نام در کلاس ابتدا باید یک آزمون تعیین سطح بدهد و با توجه به نمره کسب شده از آزمون، در کلاس مناسب ثبت نام می‌شود.

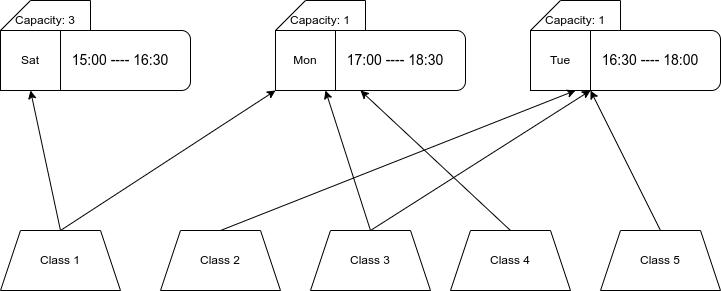
بازه‌زمانی - Timeslot

این موجودیت با هدف گسسته سازی مفهوم زمان است که یک مفهوم پیوسته است. ایده این است که کاربران سامانه، بازه ها زمانی مشخصی در سیستم تولید می کنند و یا توسط الگوریتمی به صورت خودکار درست می‌شود. هر بازه زمانی یک صفت ظرفیت دارد که مشخص می کند در آن زمان چند اتاق در دسترس هستند تا کلاس تشکیل شوند. هر کلاس می تواند بیش تر از یک بازه زمانی به آن تعلق بگیرد و اگر ظرفیت صفر باشد، کلاسی نمی تواند به‌ آن تعلق بگیرد.

فرض کنید پنج کلاس داریم و سه بازه زمانی مانند زیر:



**یک جواب به این مسئله می تواند همچین چیزی باشد:**

****

# جداول

## کاربر – user

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY,  AUTO INCREMENT | This entity's primary key | 2 |
| 2 | email | VARCHAR (512) | NOT NULL,  UNIQUE | User's email | email@example.com |
| 3 | password | VARCHAR (512) | NOT NULL | User’s password stored in hash | a5u8dubD64afbuc |
| 4 | email\_verified\_at | DATETIME |  | The date of when this user verified their email | 2024-09-18 11:55:19 |
| 5 | remember\_token | VARCHAR (512) |  | Remember token signifying the last time user changed their password | eag6adaoboqvwf |
| 6 | First\_name | VARCHAR (512) | NOT NULL | User’s first name | امیررضا |
| 7 | Last\_name | VARCHAR (512) | NOT NULL | User's last name | قاسمی |
| 8 | Father\_name | VARCHAR (512) | NOT NULL | The name of user's father | وحید |
| 9 | Sex | TINYINT | NOT NULL | The gender of user stored by using the ISO/IEC 5218 standard  (استاندارد نگه داری جنسیت) |  |
| 10 | Birthday | DATE | NOT NULL | Birthday given in Date format | 2024-09-18 |
| 11 | Phone\_number | VARCHAR (16) | NOT NULL | The user's phone number | 09118434743 |
| 12 | Profile\_pic | VARCHAR (512) |  | A user uploaded profile picture for personal use. Stored in server storage | users/2/iwdwyv.png |
| 13 | Personal\_photo | VARCHAR (512) |  | An official personnel photo | users/2/iwdwyv.png |
| 14 | national\_id | VARCHAR (11) |  | User’s national ID represented as a varchar field | 0372477021 |
| 15 | national\_card | VARCHAR (11) |  | A scan of the national card if it is necessary | users/2/fobuvc.png |
| 16 | identification | VARCHAR (512) |  | A scan of the identification documents | usersusers/2/sfwfono.png |
| 17 | education\_level | VARCHAR (512) | NOT NULL | Representing general level of education that the user has, before highschool will be stored as 1-3, 4-6, etc and after that simply the name of the level like bachelors, masters,etc | bachelors |
| 18 | education\_license | VARCHAR (512) |  | Scan of the latest educational license if necessary | users/2/iwdwyv.png |
| 19 | address | TEXT | NOT NULL | The home address of the user | خیابان شهدا – کوچه گل رز |
| 20 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 21 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## نقش – role

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | Id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | role | VARCHAR (512) | NOT NULL, UNIQUE | The title of the role | student |
| 3 | created\_at | DATETIME | NOT NULL | The time this entry was first | 2024-09-18 11:55:19 |
| 4 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## کاربر\_ نقش – user\_role\_pivot

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | role\_id | INT | FOREIGN KEY | The id of the role this relation has | 1 |
| 3 | user\_id | INT | FOREIGN KEY | The id of the user participating in this relationship | 2 |
| 4 | active | BOOLEAN | NOT NULL | If a role has been discontinued, this entry will be turned to false, instead of deleting the entry, for keeping history | TRUE |
| 5 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 6 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## تعیین سطح کاربر - Level determination test

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | user\_id | INT | FOREIGN KEY | The id of the user who created this article | 1 |
| 3 | score | VARCHAR (2) | NOT NULL | Level of user | B2 |
| 4 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 5 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## مقاله‌ها - article

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | user\_id | INT | FOREIGN KEY | The id of the user who created this article | 1 |
| 3 | title | VARCHAR (512) | NOT NULL | Title of the article | This town is lovely |
| 4 | content | LONGTEXT | NOT NULL | The content of the article stored with markup special characters | \*\*I love this town\*\* \* it’s clean |
| 5 | cover\_picture | VARCHAR (512) |  | An optional main cover picture for this article | articles/2/ihusguad.png |
| 6 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 7 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## مقاله‌\_کاربر – article\_user\_pivot

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | user\_id | INT | FOREIGN KEY | The id of the user who was one of this article’s creators | 1 |
| 3 | article\_id | INT | FOREIGN KEY | The id of the article | 2 |
| 4 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 5 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## اعلانات آموزشگاه - Institute\_announcements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | user\_id | INT | FOREIGN KEY | The id of the user who created this announcement | 1 |
| 3 | content | LONGTEXT | NOT NULL | The content of the announcement stored with markup special characters | \*\*Pay your enrollment fees\*\* |
| 4 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 5 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## معلم‌ها - Teachers

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | user\_id | INT | FOREIGN KEY | The user that has this teacher entity | 1 |
| 3 | active | BOOLEAN | NOT NULL | If the teacher is active or not | TRUE |
| 4 | ttc\_score | INT |  |  | 25 |
| 5 | ttc\_scan | VARCHAR (512) |  | Scan of the TTC test if necessary | teachers/2/adobi.png |
| 6 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 7 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## کلاس‌ها - Classes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | teacher\_id | INT | FOREIGN KEY | The teacher that teaches this class | 1 |
| 3 | book\_id | INT | FOREIGN KEY | The id of the book assigned to this class | 1 |
| 4 | default\_session\_count | INT |  | The default number of sessions assigned to this class | 18 |
| 5 | held\_sessions | VARCHAR (512) | NOT NULL | The amount of sessions held for this class to the present. Held means that the session was created and ended at the designated date | 5 |
| 6 | base\_fee | DECIMAL | NOT NULL | The base fee that needs to be paid by students enrolled in this class | 800,000 |
| 7 | teacher\_fee | DECIMAL | NOT NULL | The fee that needs to be paid to teacher | 800,000 |
| 8 | started\_at | DATETIME |  | A class can be created but not started | 2024-09-18 11:55:19 |
| 9 | ended\_at | DATETIME |  | A class can be ended and then archived. If not it will contain NULL | 2024-09-18 11:55:19 |
| 10 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 11 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## ثبت‌نام کردن - Enrollment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | class\_id | INT | FOREIGN KEY | The class this enrollment is of | 1 |
| 3 | User\_id | INT | FOREIGN KEY | The user this enrollment is of | 1 |
| 4 | base\_fee\_owed | INT | NOT NULL | How much user paid for class fee | 800,000 |
| 5 | book\_fee\_owed | INT | NOT NULL | How much user paid for book fee | 60,000 |
| 6 | attendance\_score | INT | CHECK <=100 && >= 0 | The end of class score assigned by teacher to student for attendance | 60 |
| 7 | midterm\_score | INT | CHECK <=100 && >= 0 | The end of class score assigned by teacher to student for midterm | 30 |
| 8 | final\_score | INT | CHECK <=100 && >= 0 | The end of class score assigned by teacher to student for final score | 78 |
| 9 | overall\_score | INT | CHECK <=100 && >= 0 | The end of class score assigned to student after finishing the enrollment | 56 |
| 10 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 11 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## جلسه‌ها - Session

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | class\_id | INT | FOREIGN KEY | The class this session belongs to | 1 |
| 3 | canceled | BOOLEAN | NOT NULL | This will be set to true if the session was canceled | 0 |
| 4 | Date\_held | DATETIME | NOT NULL | The concrete date when this session should take place | 2024-09-18 11:55:19 |
| 5 | description | TEXT |  | An optional description of the session | This session, bring your books |
| 6 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 7 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## حضورغیاب - Attendance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | session\_id | INT | FOREIGN KEY | The session this attandance belongs to | 1 |
| 3 | user\_id | INT | FOREIGN KEY | The user that attended | 1 |
| 4 | details | TEXT |  | Optional details about this attendance | Bob was a good student this session+ |
| 5 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 6 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## بازه‌‌های زمانی – Time\_slots

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | day | INT | NOT NULL, CHECK <= 6 | Holds values of 0 to 6 indicating days of the week, 0 = sat, 1 = sun, etc | 1 |
| 3 | capacity | INT | NOT NULL | How many classes can take on this timeslot at the present time. | 4 |
| 4 | start\_time | TIME | NOT NULL | The time of this slot’s start | 08:00 |
| 5 | end\_time | TIME | NOT NULL | The time of this slot’s end | 09:30 |
| 5 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 6 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## زمانبندی کلاس‌ها – class\_timeslots\_pivot

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | class\_id | INT | NOT NULL |  | 1 |
| 3 | timeslot\_id | INT | NOT NULL |  | 1 |
| 5 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 6 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## کتاب‌ها - books

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | name | VARCHAR (512) | NOT NULL |  | English1 |
| 3 | price | VARCHAR (512) | NOT NULL | Last recorded price | 75,000 |
| 4 | cover | VARCHAR (512) |  | Optional directory of cover image | books/2/fiwbfiwfv.png |
| 5 | files | VARCHAR (512) |  | Directory of additional files for the book | books/2/files/ |
| 5 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 6 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

## اعلانات کلاس - class\_announcements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Field Names | Type | Constraints | Description | Sample Data |
| 1 | id | INT | PRIMARY, AUTO INCREMENT | This entity’s primary key | 2 |
| 2 | Class\_id | INT | FOREIGN KEY | The class this announcement belongs to | 1 |
| 3 | content | TEXT | NOT NULL | The content of this announcement | This class will be canceled |
| 4 | created\_at | DATETIME | NOT NULL | The time this entry was first created | 2024-09-18 11:55:19 |
| 5 | updated\_at | DATETIME | NOT NULL | When this entry got updated. If it has not, the date will be the same as created\_at | 2024-09-18 11:55:19 |

# نمودار UI

A black and white diagram

AI-generated content may be incorrect.