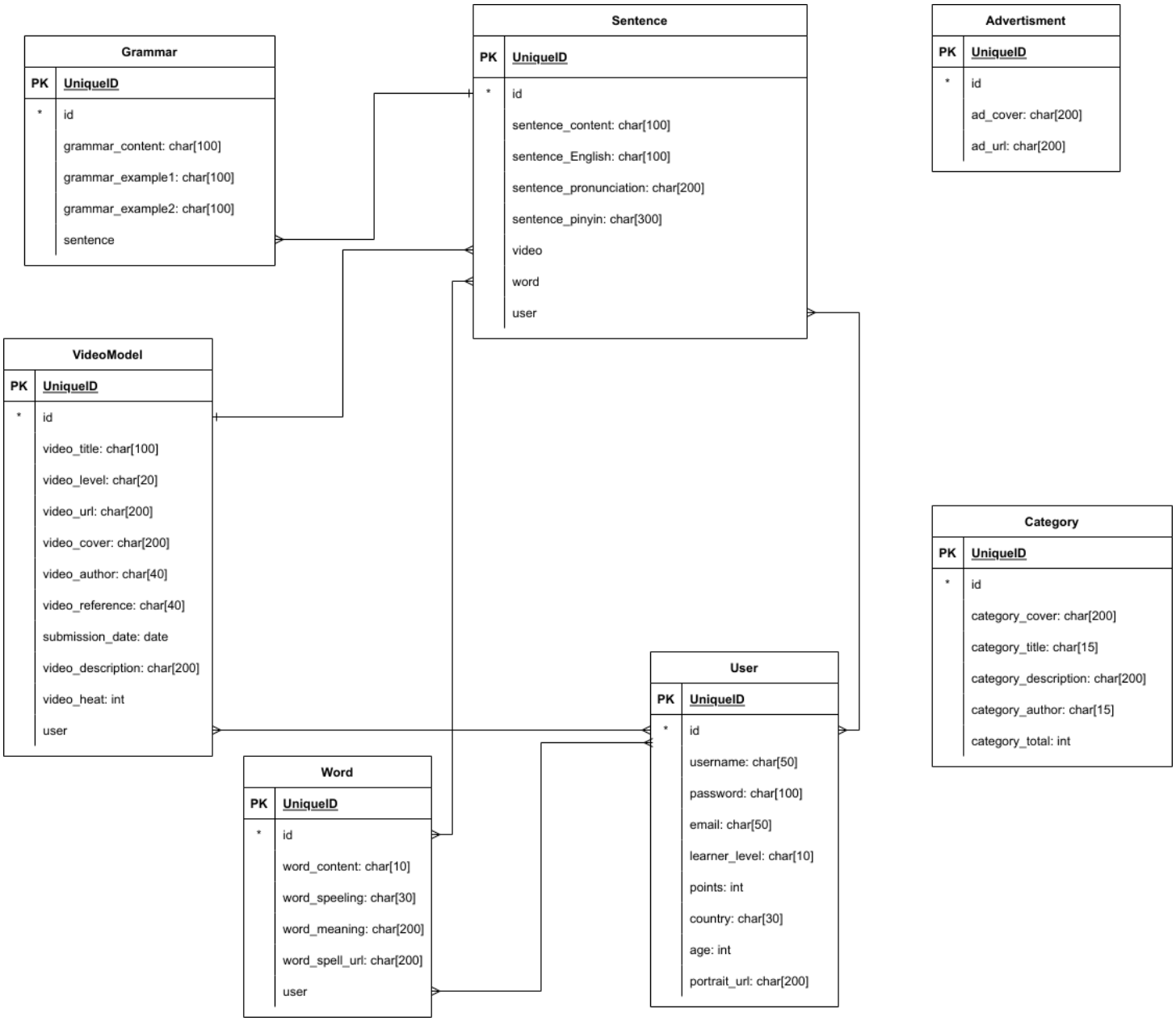
项目文档

E-R 图



数据字典

VideoModel

Fields	Type	Reference To	Cardinality

Fields	Type	Reference To	Cardinality
id	Primary Key	Sentence(video)	One-to-Many
video_title	char[100]	-	-
video_level	char[20]	-	-
video_url	char[200]	-	-
video_cover	char[200]	-	-
video_author	char[40]	-	-
video_reference	char[40]	-	-
video_description	char[200]	-	-
video_description	int	-	-
submission_date	date	-	-
user	int	User(id)	Many-to-Many

Grammar

Fields	Type	Reference To	Cardinality
id	Primary Key	-	-
grammar_content	char[100]	-	-
grammar_example1	char[100]	-	-
grammar_example2	char[100]	-	-
sentence	int	Sentence(id)	Many-to-One

Sentence

Fields	Type	Reference To	Cardinality
id	Primary Key	char[100]	Grammar(sentence)
sentence_content	char[100]	-	-
sentence_english	char[100]	-	-
sentence_pronunication	char[200]	-	-

Fields	Type	Reference To	Cardinality
sentence_pinyin	char[300]	-	-
video	int	VideoModel(id)	Many-to-One
word	int	Word(id)	Many-to-Many
user	int	User(id)	Many-to-Many

Word

Fields	Type	Reference To	Cardinality
id	Primary Key	Sentence(id)	Many-to-Many
word_content	char[10]	-	-
word_speeling	char[30]	-	-
word_meaning	char[200]	-	-
word_spell_url	char[200]	-	-
user	int	User(id)	Many-to-Many

User

Fields	Type	Reference To	Cardinality
id	Primary Key	Word(user),VideoModel(user),Sentence(user)	Many-to-Many
username	char[50]	-	-
password	char[100]	-	-
email	char[50]	-	-
learner_level	char[10]	-	-
points	int	-	-
country	char[30]	-	-
age	int	-	-
portrait_url	char[200]	-	-

Category

Fields	Type	Reference To	Cardinality
id	Primary Key	-	-
category_cover	char[200]	-	-
category_title	char[15]	-	-
category_description	char[200]	-	-
category_author	char[15]	-	-
category_total	int	-	-

Advertisement

Fields	Type	Reference To	Cardinality
id	Primary Key	-	-
ad_cover	char[200]	-	-
ad_url	char[200]	-	-

技术架构

网站部署在云端, 采用C/S架构. , 因为项目试验成分较大, 为了便于开发修改和调试, 采用基于Python的Django作为后端逻辑处理, 而轻量小巧的sqlite作为数据库, 减少部署和迁移成本.

功能模块设计

关键功能/算法设计

使用Cookies管理用户登录状态

使用Cookies管理用户登录状态. 弥补了HTTP无状态导致无法识别用户登录情况的问题. 为了保证安全, 令Cookies定期失效.

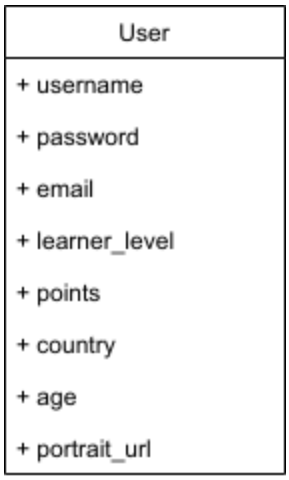
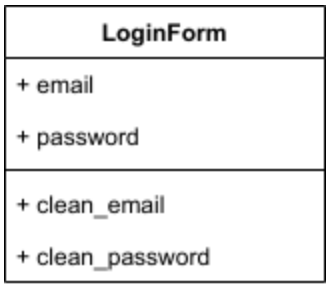
验证邮箱有效

为了验证用户输入的邮箱的真实性, 在收到手机号后, 我们通过 `send_email` 中的 `random_str` 函数生成一个8位随机字符串, 通过 `send_email` 函数发送验证码到邮箱中, 用户只有将验证码输入到指定验证位置后, 邮箱才有效.

接口设计

关键数据结构

User



LoginForm