

Data Dictionary

MainePad Finder

By Jeffrey Fosgate, Yunlong Li, Ashley Pike and Sophia Priola

<u>Entity / Attr. Name</u>	<u>Data Type</u>	<u>Constraints</u>	<u>Description</u>
USER	TABLE		A user account in the <i>MainePad Finder</i> system. Contains pertinent user information, including important account details. LANDLORD and RENTER are subtypes of USER , and represent specific types of user accounts that can be created.
<u>USER_ID</u>	int	<i>Primary key of USER</i> NOT NULL UNIQUE AUTO_INCREMENT	A unique, immutable numerical ID assigned to every newly-created account.
USERNAME	varchar (50)	NOT NULL UNIQUE	An alphanumeric string devised by a user for logging into their <i>MainePad Finder</i> account.
PASSWORD	varchar (50)	NOT NULL	A hashed string corresponding to a password devised by a user for logging into their <i>MainePad Finder</i> account. This string should be kept secret and known only to the user who owns the account to which the password is utilized.
EMAIL	varchar (100)	NOT NULL	The email associated with a user's account.
PHONE_NUMBER	bigint	NOT NULL	The phone number associated with a user's account.
GENDER	char(1)	CHECK (GENDER IN ('M' , 'F' , 'X' , ' ? '))	The user-submitted gender of the user that owns an account. 'M' = Male 'F' = Female

			'X' = Non-Binary '?' = Other / Prefer not to specify
DESC	nvarchar (1000)	NULL ALLOWED	A user-submitted description to display on that user's profile.
PICTURE_URL	nvarchar (1000)	NULL ALLOWED	A URL of the user-submitted profile picture.
NAME	nvarchar (200)	NOT NULL	The real-world legal name of the user, to be used for identity validation.
BIRTH_DATE	date	NOT NULL	The user's self-specified date of birth. A user's birth year, birth month and birth day should be among the data specified by this attribute.
AGE	smallint		The current age of the user. Derived from BIRTH_DATE.
RENTER	TABLE		A user account specifically for prospective renters seeking to rent a property with one or more potential roommates. RENTER is a subtype of the USER entity type and inherits all attributes from USER .
LANDLORD	TABLE		A user account specifically for landlords renting out one or more properties. LANDLORD is a subtype of the USER entity type and inherits all attributes from USER .
NOTIFICATION	TABLE		A system notification for informing users of occurrences such as new messages sent and system-wide notifications. A user's notifications shall appear within a notification menu.
<u>NOTIFICATION_ID</u>	int	<i>Primary key of</i> NOTIFICATION NOT NULL UNIQUE AUTO_INCREMENT	A unique, immutable numerical ID assigned to every newly-created notification.

TIMESTAMP	timestamp	NOT NULL	A timestamp denoting precisely when the notification was sent to its recipients.
IS_READ	bool	NOT NULL	A notification is to be considered <i>read</i> if its recipient has manually examined the notification within their notification menu after the notification's TIMESTAMP. This flag variable specifies whether a notification <i>has</i> been read (TRUE) or <i>has not yet</i> been read (FALSE).
NOTIFICATION_TEXT	nvarchar (1000)	NOT NULL	The textual contents of the notification.
REVIEW	TABLE		A textual and rating-based review directed at a property (and a property's landlord by extension).
<u>REVIEW_ID</u>	int	<i>Primary key of REVIEW</i> UNIQUE NOT NULL AUTO_INCREMENT	A unique, immutable numerical ID assigned to every newly-created review.
USER_ID	int	<i>Foreign key of RENTER</i> NOT NULL	A numerical ID of the user posting the review.
PROPERTY_ID	int	<i>Foreign key of PROPERTY</i> NOT NULL	A numerical ID of the property the review is for.
COMMENT	varchar (1000)		A textual comment that a user may optionally provide to further contextualize their numerical rating of the property to which the review pertains.
STARS	float (1,2)	NOT NULL CHECK (Rating >= 0.0 AND Rating <= 5.0)	A numerical rating (between 0 and 5 “stars”) that quantifies a renter's general impression of a property.

PROPERTY	TABLE		A listing for a property that is managed by a landlord and potentially rentable to one or more renters. Contains pertinent information for prospective renters. The primary concern of landlords within the <i>MainePad Finder</i> system.
<u>PROPERTY_ID</u>	int	<i>Primary key of PROPERTY</i> NOT NULL UNIQUE AUTO_INCREMENT	A unique, immutable numerical ID assigned to every newly-created property listing.
RENT_COST	int	NOT NULL	The per-month rental costs of the property.
PROPERTY_RATING	float (1,2)	CHECK (PropertyRating >= 0.0 AND PropertyRating <= 5.0)	The mean number of stars (out of five) conferred upon the property between all reviews made pertaining to it. Derived from the mean of REVIEW.STARS between all reviews pertaining to the property.
LANDLORD_ID	int	<i>Foreign key of LANDLORD</i> NOT NULL	The primary landlord of the property. Linked to the landlord in the RENT_OUT relation.
BATHROOMS	smallint	NOT NULL	How many bathrooms does this property have?
BEDS	smallint	NOT NULL	How many bedrooms does this property have?
CAN_RENT	bool	TRUE or FALSE	A flag variable: Is this property currently available for rent?
APT_NUM	int	NULL ALLOWED	An apartment number associated with the property, for properties listed as part of an apartment complex or other unit with multiple individual rental spaces. An APT_NUM of NULL denotes a

			property that is not part of such a complex, and to which this datum would be inapplicable.
MESSAGE	TABLE		Representative of a text-based message sent between one user and another. Denotes the content of the message, and the sender and recipient of the message, among other pertinent details.
<u>MSG_ID</u>	int	<i>Primary key of MESSAGE</i> UNIQUE NOT NULL AUTO_INCREMENT	A unique, immutable numerical ID assigned to every newly-created message.
SENDER_ID	int	<i>Foreign key of USER</i> NOT NULL	The ID of the USER who sent this message.
RECIPIENT_ID	int	<i>Foreign key of USER</i> NOT NULL	The ID of the USER who is to receive this message.
SENT_TIMESTAMP	timestamp	NOT NULL	A timestamp denoting the precise date and time in which the message was sent.
MESSAGE_TEXT	nvarchar (1000)	NOT NULL	The textual contents of the message.
IS_READ	bool	TRUE or FALSE	A flag variable: Has this message been read by its recipient?
ADDRESS	TABLE		A relation providing the exact geographic location of a place. ADDRESS is to be used both in considering the location preferences of a renter (i.e., college campuses that a renter must be near) and in representing the precise locations of properties.
<u>ADDR_ID</u>	int	<i>Primary key of ADDRESS</i>	A unique, immutable numerical ID assigned to every address.

		UNIQUE NOT NULL	
STREET	varchar (200)	NOT NULL	Distinguishes the street along which the place is located.
CITY	varchar (100)	NOT NULL	Distinguishes the city within which the property is located.
ZIPCODE	int	NOT NULL	Distinguishes the ZIP code associated with the place.
RENTER_PREFERENCES	TABLE		A representation of a preference that a RENTER can specify for consideration in roommate matchmaking and property searches.
<u>PREFERENCE_ID</u>	int	<i>Primary key of RENTER_PREFERENCES</i> UNIQUE NOT NULL	A unique, immutable numerical ID assigned to every preference.
PREFERENCE_NAME	varchar (100)	NOT NULL	The name of the preference that the user can specify.
RENTER_SETTINGS	TABLE		A representation of several special preference settings that a RENTER can specifically elucidate.
<u>USER_ID</u>	int	<i>Primary key of RENTER_SETTINGS</i> <i>Foreign key of RENTER</i> UNIQUE NOT NULL	A unique, immutable numerical ID assigned to the user associated with the settings.
DISTANCE_MAX	int	NOT NULL	What is the maximum distance that the RENTER is willing to live away from their college?
GENDER_PREFERRED	char(1)	CHECK (GENDER IN ('M' , 'F' , 'X' ,	What gender of roommate would this RENTER prefer to have?

		' ? '))	'M' = Male 'F' = Female 'X' = Non-Binary '? ' = Other / None
MATCH	TABLE <i>Relation</i> (many-to-many, RENTER to RENTER)		A relation that represents a matching of two or more renters together via the <i>MainePad Finder</i> roommate finder.
<u>MATCH_ID</u>	int	<i>Primary key of MATCH</i> <i>Foreign key of RENTER</i> NOT NULL	Primary Key of MATCH . An immutable user ID for the USER that USER_ID has matched with
<u>USER_ID</u>	int	<i>Primary key of MATCH</i> <i>Foreign key of RENTER</i> NOT NULL	Primary Key of MATCH . An immutable user ID for the USER
HAS_PREFERENCE	TABLE <i>Relation</i> (many-to-many, RENTER to RENTER_PREFERENCES)		A relation that represents a renter to have preferences to aid in finding a roommate with compatible preferences, via the <i>MainePad Finder</i> roommate finder.
<u>USER_ID</u>	int	<i>Primary key of HAS_PREFERENCE</i> <i>Foreign key of RENTER</i> NOT NULL	Primary Key of USER_PREFERENCE . An immutable user ID of the user that the preferences are referring to
<u>PREFERENCE_ID</u>	int	<i>Primary key of HAS_PREFERENCE</i> <i>Foreign key of RENTER_PREFERENCES</i> NOT NULL	Primary Key of USER_PREFERENCE . An immutable ID of the preference

		<i>Foreign key of</i> RENTER_PREFERENCE NOT NULL	being matched
NOTIFIES	TABLE <i>Relation</i> <i>(many-to-many,</i> NOTIFICATION to USER)		A relation that represents a user receiving a system wide notification.
<u>NOTIFICATION_ID</u>	int	<i>Primary key of</i> NOTIFIES <i>Foreign key of</i> NOTIFICATION NOT NULL UNIQUE	Primary key of NOTIFIES . A unique, immutable ID that is specific to the notification being sent
<u>RECIPIENT_ID</u>	Int	<i>Primary key of</i> NOTIFIES <i>Foreign key of</i> USER NOT NULL	Primary key of NOTIFIES . An immutable ID that is specific to the user that is receiving the notification