

### 3.3.2 Employee

Employee	
PK	<u>id</u>
FK	<u>user_id</u>
	position
	time_at_work
	time_at_desk
	time_of_last_break
	fatigue_threshold
	blink
	second_counter
	fatigue_rate
	on_break
	dob
	phone_number
	department

**Figure 6** Employee database model structure

**Description:**

The Employee model is used for storing employee-related information and fatigue analysis information. This model has a one-to-one relationship with the User model.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the employee	Integer	-	<b>PK</b>
2.	user_id	This attribute is the id of the user associated with this employee	Integer	-	<b>FK</b>
3.	position	This attribute is the job position of the employee	varchar	32	-
4.	time_at_work	This attribute is the duration of time the employee at work	Integer	-	-
5.	time_at_desk	This attribute is the duration of time the employee is at their desk	Integer	-	-

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6.	time_of_last_break	This attribute is the time the employee is on break	DateTime	-	-
7.	fatigue_threshold	This attribute is the fatigue threshold of the employee indicating how fatigue the employee is	Float	-	-
8.	blink	This attribute is the number of blinks	Integer	-	-
9.	second_counter	This attribute is the minute counter used in logic	Integer	-	-
10.	fatigue_rate	This attribute is the rate of how fast the employee can get fatigue	Float	-	-
11.	dob	This attribute is the birth date of the employee	Date	-	-
12.	phone_number	This attribute is the phone number of the employee	varchar	12	-
13.	department	This attribute is the department the employee works at	varchar	40	-

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### 3.3.3 Manager

Manager	
PK	<u>id</u>
FK	<u>user_id</u>

**Figure 7** Manager database model structure

**Description:**

The Manager model is used for storing manager-related information. This model has a one-to-one relationship with the User model.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the manager	Integer	-	<b>PK</b>
2.	user_id	This attribute is the id of the user related to the manager	Integer	-	<b>FK</b>

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### 3.3.4 Employee\_Notification

Employee_Notification	
PK	<u>id</u>
FK1	<u>employee_id</u>
FK2	<u>notification_id</u>

**Figure 8** Employee\_Notification database table structure

**Description:**

The Employee\_Notification table is used to store keys of employee model id and notification id.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the keypair	Integer	-	<b>PK</b>
2.	employee_id	This attribute is the id of the employee	Integer	-	<b>FK</b>
3.	notification_id	This attribute is the id of the notification the employee associates with	Integer	-	<b>FK</b>

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### 3.3.5 Notification

Notification	
PK	<u>id</u>
	sender
	text
	time
	is_read

**Figure 9** Notification database model structure

**Description:**

The Notification model is used to store notification related data which includes sender, text, time, and if it is read.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the notification	Integer	-	PK
2.	sender	This attribute is the name of the sender	varchar	32	-
3.	text	This attribute is the text of the notification	varchar	256	-
4.	time	This attribute indicates the time the notification was created	DateTime	-	-
5.	is_read	This attribute shows if the notification is read	Boolean	-	-

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### 3.3.6 FatigueRecord

FatigueRecord	
PK	<u>id</u>
FK	<u>employee_id</u>
	time_of_record
	fatigue_threshold

**Figure 10** FatigueRecord database model structure

**Description:**

The FatigueRecord model is used to store employee work status based on their fatigue.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the fatigueRecord	Integer	-	<b>PK</b>
2.	employee_id	This attribute is the id of the employee the record associates with	Integer	-	<b>FK</b>
4.	time_of_record	This attribute indicates the time the record was created	DateTime	-	-
5.	fatigue_threshold	This attribute is the fatigue threshold of the employee indicating how fatigue the employee is	float	-	-

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### 3.3.7 BreakRequest

BreakRequest	
PK	<u>id</u>
FK	<u>employee_id</u>
	time
	is_accepted
	is_denied

**Figure 11** BreakRequest database model structure

**Description:**

The BreakRequest model is used to store employee work status based on their fatigue.

**Fields:**

No.	Name	Description	Type	Length	Extra
1.	id	This attribute is the id of the breakRequest	Integer	-	<b>PK</b>
2.	employee_id	This attribute is the id of the employee the request associates with	Integer	-	<b>FK</b>
3.	time	This attribute indicates the time the request was created	DateTime	-	-
4.	is_accepted	This attribute indicates whether the breakRequest is accepted by the manager	Boolean	-	-
5.	is_denied	This attribute indicates whether the breakRequest is denied by the manager	Boolean	-	-

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