

Table	Foreign Key	References	Relationship Type	On Delete Action
camera	user_id	user_info(user_id)	One-to-Many (User-Camera)	SET NULL
camera_node_configuration	camera_id	camera(camera_id)	One-to-One (Camera-Config)	CASCADE
previous_videos	camera_id	camera(camera_id)	One-to-Many (Camera-Videos)	CASCADE
live_feed_metadata	camera_id	camera(camera_id)	One-to-Many (Camera-Live Feed)	CASCADE
detected_animal_logs	camera_id	camera(camera_id)	One-to-Many (Camera-Logs)	CASCADE
alerts	user_id, camera_id	user_info(user_id), camera(camera_id)	Many-to-One (User/Camera-Alerts)	CASCADE
event_log	user_id	user_info(user_id)	One-to-Many (User-Events)	CASCADE
camera_activity_log	camera_id	camera(camera_id)	One-to-Many (Camera-Activity)	CASCADE
training_results	training_dataset_id	training_dataset(training_id)	Many-to-One (Dataset-Results)	CASCADE
test_results	test_dataset_id	test_dataset(test_id)	Many-to-One (Dataset-Results)	CASCADE
deployed_results	camera_id, event_id	camera(camera_id), previous_videos(event_id)	Many-to-One (Camera/Event-Results)	CASCADE
Table Name	Column	Type	Constraints	
user_info	user_id	SERIAL	PRIMARY KEY	
	username	VARCHAR(100)	UNIQUE, NOT NULL	
	email	VARCHAR(150)	UNIQUE, NOT NULL	
	password_hash	VARCHAR(256)	NOT NULL	
	phone_number	VARCHAR(20)	-	
	app_configuration	JSONB	-	
	created_at	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	

	last_login	TIMESTAMP WITH TIME ZONE	-	
	user_settings	JSONB	-	
camera	camera_id	SERIAL	PRIMARY KEY	
	user_id	INTEGER	NOT NULL, FOREIGN KEY (user_id) REFERENCES user_info (user_id) ON DELETE SET NULL	
	camera_name	VARCHAR(100)	-	
	location	VARCHAR(150)	-	
	is_active	BOOLEAN	DEFAULT TRUE	
	date_added	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
camera_node_configuration	camera_id	INTEGER	PRIMARY KEY, FOREIGN KEY (camera_id) REFERENCES camera (camera_id) ON DELETE CASCADE	
	detection_zone	JSONB	-	
	motion_sensitivity	INTEGER	-	
	animal_detection_enabled	BOOLEAN	-	
	recording_schedule	JSONB	-	
test_dataset	test_id	SERIAL	PRIMARY KEY	
	dataset_name	VARCHAR(150)	NOT NULL	
	dataset_description	TEXT	-	
	created_at	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	used_in_model_version	VARCHAR(50)	-	
	image_path	VARCHAR(255)	NOT NULL	
	bounding_boxes	JSONB	NOT NULL	
	object_label	VARCHAR(100)	NOT NULL	
training_dataset	training_id	SERIAL	PRIMARY KEY	

	dataset_name	VARCHAR(150)	NOT NULL	
	dataset_description	TEXT	-	
	created_at	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	used_in_model_version	VARCHAR(50)	-	
	image_path	VARCHAR(255)	NOT NULL	
	bounding_boxes	JSONB	NOT NULL	
	object_label	VARCHAR(100)	NOT NULL	
training_results	result_id	SERIAL	PRIMARY KEY	
	image_path	VARCHAR(255)	NOT NULL	
	bounding_boxes	JSONB	NOT NULL	
	confidence_score	FLOAT	NOT NULL	
	model_version	VARCHAR(50)	NOT NULL	
	classification_time	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	ground_truth_label	VARCHAR(100)	-	
	evaluation_metric	JSONB	-	
	training_dataset_id	INTEGER	NOT NULL, FOREIGN KEY (training_dataset_id) REFERENCES training_dataset (training_id) ON DELETE CASCADE	
test_results	result_id	SERIAL	PRIMARY KEY	
	image_path	VARCHAR(255)	NOT NULL	
	bounding_boxes	JSONB	NOT NULL	
	confidence_score	FLOAT	NOT NULL	
	model_version	VARCHAR(50)	NOT NULL	
	classification_time	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	ground_truth_label	VARCHAR(100)	-	
	evaluation_metric	JSONB	-	

	test_dataset_id	INTEGER	NOT NULL, FOREIGN KEY (test_dataset_id) REFERENCES test_dataset(test_id) ON DELETE CASCADE	
previous_videos	event_id	SERIAL	PRIMARY KEY	
	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera(camera_id) ON DELETE CASCADE	
	video_path	VARCHAR(200)	-	
	image_path	VARCHAR(200)	-	
	event_type	VARCHAR(50)	-	
	date_recorded	TIMESTAMP WITH TIME ZONE	-	
	duration	INTEGER	-	
	storage_location	VARCHAR(100)	-	
live_feed_metadata	feed_id	SERIAL	PRIMARY KEY	
	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera(camera_id) ON DELETE CASCADE	
	start_time	TIMESTAMP WITH TIME ZONE	-	
	end_time	TIMESTAMP WITH TIME ZONE	-	
	average_quality	VARCHAR(50)	-	
	is_recorded	BOOLEAN	-	
deployed_results	result_id	SERIAL	PRIMARY KEY	
	image_path	VARCHAR(255)	NOT NULL	
	bounding_boxes	JSONB	NOT NULL	
	confidence_score	FLOAT	NOT NULL	
	model_version	VARCHAR(50)	NOT NULL	

	classification_time	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera (camera_id) ON DELETE CASCADE	
	event_id	INTEGER	NOT NULL, FOREIGN KEY (event_id) REFERENCES previous_videos (event_id) ON DELETE CASCADE	
	user_notified	BOOLEAN	DEFAULT FALSE	
	alert_triggered	BOOLEAN	DEFAULT FALSE	
	action_taken	VARCHAR(255)	-	
detected_animal_logs	log_id	SERIAL	PRIMARY KEY	
	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera (camera_id) ON DELETE CASCADE	
	animal_detected	VARCHAR(100)	-	
	detection_time	TIMESTAMP WITH TIME ZONE	-	
	image_path	VARCHAR(200)	-	
	location	VARCHAR(150)	-	
	user_notified	BOOLEAN	-	
alerts	alert_id	SERIAL	PRIMARY KEY	
	user_id	INTEGER	NOT NULL, FOREIGN KEY (user_id) REFERENCES user_info (user_id) ON DELETE CASCADE	

	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera (camera_id) ON DELETE CASCADE	
	alert_type	VARCHAR(100)	-	
	alert_message	TEXT	-	
	timestamp	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	is_viewed	BOOLEAN	DEFAULT FALSE	
	is_dismissed	BOOLEAN	DEFAULT FALSE	
event_log	event_log_id	SERIAL	PRIMARY KEY	
	user_id	INTEGER	NOT NULL, FOREIGN KEY (user_id) REFERENCES user_info (user_id) ON DELETE CASCADE	
	event_type	VARCHAR(100)	-	
	event_details	TEXT	-	
	timestamp	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
camera_activity_log	activity_log_id	SERIAL	PRIMARY KEY	
	camera_id	INTEGER	NOT NULL, FOREIGN KEY (camera_id) REFERENCES camera (camera_id) ON DELETE CASCADE	
	activity_type	VARCHAR(100)	-	
	timestamp	TIMESTAMP WITH TIME ZONE	DEFAULT CURRENT_TIMESTAMP	
	details	TEXT	-	