Use Case Inventory Consolidated With EDR And Data Model

Use Case 1: User Registration

Primary Actor: New User

Scenario:

1. User launches the app.

2. User clicks on the "Sign Up" button.

3. User fills in their information, including a unique username, password, and email address.

4. User submits the form to create a new account.

Field Name	Data Type	Description
UserID	UUID	A unique identifier for each user. Could be an auto-incrementing integer or a universally unique identifier (UUID).
Username	String	The chosen username of the user. It should be unique across the system.
Email	String	The email address of the user. This should also be unique across the system as it can be used for communication and potentially recovering the account.
PasswordHash	String	A securely hashed representation of the user's password. Storing the hash, rather than the password itself, is a standard security practice.
DateRegistered	DateTime	The date and time when the user registered. This would typically be automatically generated when the account is created.
LastLogin	DateTime	The date and time of the user's most recent login. This would typically be updated each time the user logs in to the system.

USER

uuid	UserID
string	Username
string	Email
string	PasswordHash
datetime	DateRegistered
datetime	LastLogin

creates

TASK

uuid	TaskID
string	Title
string	Description
datetime	DueDate
datetime	CreatedDate
boolean	IsCompleted
int	PomodoroDuration
int	BreakDuration

Use Case 2: User Login

Primary Actor: Returning User

Scenario:

1. User opens the app.
2. User enters their username and password in the login fields.
3. User clicks the "Sign In" button to access the app.

User

Field Name	Data Type	Description
UserID	UUID	A unique identifier for each user. Could be an auto-incrementing integer or a universally unique identifier (UUID).
Username	String	The chosen username of the user. It should be unique across the system.
Email	String	The email address of the user. This should also be unique across the system as it can be used for communication and potentially recovering the account.
PasswordHash	String	A securely hashed representation of the user's password. Storing the hash, rather than the password itself, is a standard security practice.
LastLogin	DateTime	The date and time of the user's most recent login. This would typically be updated each time the user logs in to the system.

LoginAttempt

Field Name	Data Type	Description
LoginAttemptID	UUID	A unique identifier for each login attempt. Could be an auto-incrementing integer or a UUID.
UserID	UUID	The identifier of the user attempting to log in. This links the login attempt to the specific user in the User table.
AttemptTime	DateTime	The date and time of the login attempt.
IsSuccessful	Boolean	A flag indicating whether the login attempt was successful.
IPAddress	String	The IP address from which the login attempt was made. Useful for tracking and security purposes.

USER

uuid	UserID
string	Username
string	Email
string	PasswordHash
datetime	LastLogin

attempts

LOGINATTEMPT

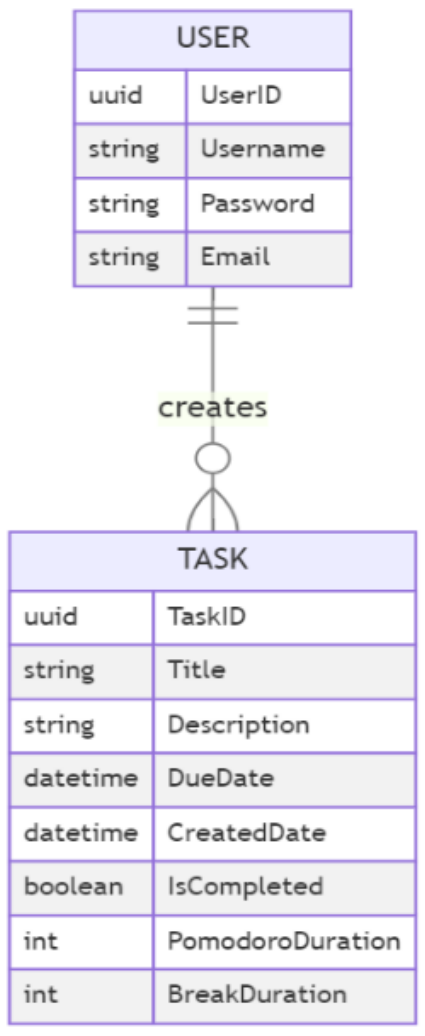| uuid	LoginAttemptID
datetime	AttemptTime
boolean	IsSuccessful
string	IPAddress

Use Case 3: Creating a Task

Primary Actor: User

Scenario:

1. User clicks on the "+" button on the home screen.
2. User fills in the details of the task, including title, description, date, and time.
3. User sets the timer for the task and the break duration.
4. User clicks "Done" to save the task.

Field Name	Data Type	Description
TaskID	UUID	A unique identifier for each task. Could be an auto-incrementing integer or a universally unique identifier (UUID).
UserID	UUID	A reference to the User who created the task. Links each task to a specific user.
Title	String	The title or name of the task. A brief summary of what the task involves.
Description	String	A more detailed explanation of what the task involves. This field may be optional, depending on user preference.
DueDate	DateTime	The date and time when the task is due to be completed. This is set by the user when creating the task.
CreatedDate	DateTime	The date and time when the task was created. This would typically be automatically generated when the task is created.
IsCompleted	Boolean	A flag indicating whether the task has been completed. Initially set to false and updated to true once the task is marked as completed.
PomodoroDuration	Integer	The duration of the Pomodoro timer for the task, represented in minutes.
BreakDuration	Integer	The duration of the break timer after each Pomodoro cycle, also represented in minutes.

USER

uuid	UserID
string	Username
string	Password
string	Email

creates

TASK

uuid	TaskID
string	Title
string	Description
datetime	DueDate
datetime	CreatedDate
boolean	IsCompleted
int	PomodoroDuration
int	BreakDuration

Use Case 4: Managing Tasks
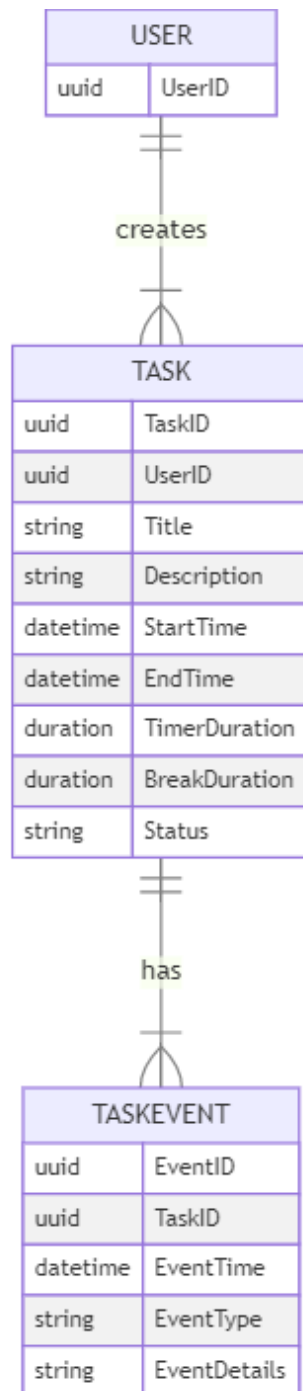
Primary Actor: User

Scenario:

1. User clicks on a task from the task list on the home screen.
2. User can edit the details of the task, start, pause, or reset the timer, and mark the task as completed.

User

Field Name	Data Type	Description
UserID	UUID	A unique identifier for each user.

Task

Field Name	Data Type	Description
TaskID	UUID	A unique identifier for each task.
UserID	UUID	The identifier of the user to whom the task belongs.
Title	String	The title or brief description of the task.
Description	String	A more detailed description of the task.
StartTime	DateTime	The date and time when the task should start.
EndTime	DateTime	The date and time when the task should end.
TimerDuration	Duration	The time duration for the timer attached to the task.
BreakDuration	Duration	The time duration for the break after the timer ends.
Status	String	The current status of the task. This could be a value like 'Not Started', 'In Progress', 'Completed', or 'Cancelled'.

TaskEvent

Field Name	Data Type	Description
EventID	UUID	A unique identifier for each task event.
TaskID	UUID	The identifier of the task that the event is related to.
EventTime	DateTime	The time at which the event occurred.
EventType	String	The type of event. This could be 'Task Created', 'Task Started', 'Task Completed', etc.
EventDetails	String	Additional information about the event.

USER	
uuid	UserID

creates

TASK	
uuid	TaskID
uuid	UserID
string	Title
string	Description
datetime	StartTime
datetime	EndTime
duration	TimerDuration
duration	BreakDuration
string	Status

has

TASKEVENT	
uuid	EventID
uuid	TaskID
datetime	EventTime
string	EventType
string	EventDetails

Use Case 5: Viewing and Editing Profile

Primary Actor: User

Scenario:

1. User clicks on the hamburger icon on the top left of the home screen.

2. User selects "Settings".

3. User can view and edit their profile information, opt in/out of the global leaderboard, and manage notification settings.

User

Field Name	Data Type	Description
UserID	UUID	A unique identifier for each user.
FirstName	String	The first name of the user.
LastName	String	The last name of the user.
Email	String	The email address of the user.
Password	String	The hashed password for the user account.
ProfileImage	String	A link to the user's profile image.
Username	String	The username chosen by the user.
Score	Integer	The total score accumulated by the user.

Achievements

Field Name	Data Type	Description
AchievementID	UUID	A unique identifier for each achievement.
UserID	UUID	A reference to the user who earned the achievement.
AchievementName	String	The name of the achievement.
AchievementDescription	String	A description of what the achievement represents.
DateEarned	DateTime	The date when the achievement was earned.

USER

uuid	UserID
string	FirstName
string	LastName
string	Email
string	Password
string	ProfileImage
string	Username
int	Score

has-earned

ACHIEVEMENT

uuid	AchievementID
uuid	UserID
string	AchievementName
string	AchievementDescription
datetime	DateEarned

Use Case 6: Accessing Help

Primary Actor: User

Scenario:

1. User clicks on the hamburger icon on the top left of the home screen.

2. User selects "Help".

3. User accesses guides and troubleshooting steps to assist in using the app.

HelpTopic

Field Name	Data Type	Description
TopicID	UUID	A unique identifier for each help topic.
Title	String	The title of the help topic.
Description	String	A detailed description or explanation of the help topic.

HELPTOPIC	
uuid	TopicID
string	Title
string	Description

Use Case 7: Handling Notifications

Primary Actor: User

Scenario:

1. User receives a notification when the timer is near completion or has ended.

2. User can adjust notification settings under "Settings".

Notification

Field Name	Data Type	Description
NotificationID	UUID	A unique identifier for each notification.
UserID	UUID	Identifier of the user to whom the notification is sent.
TaskID	UUID	Identifier of the task related to the notification. This could be null if the notification is not related to a specific task.
Type	Enum	The type of the notification. This could be an enumeration of different types such as "TaskReminder", "BreakReminder", "Achievement", etc.
Message	String	The message to display in the notification.
Timestamp	DateTime	The time when the notification should be sent.
Status	Enum	The status of the notification. This could be an enumeration of statuses such as "Sent", "Unsent", "Acknowledged", etc.

USER	
uuid	UserID
string	Username
string	Password
string	Email

TASK	
uuid	TaskID
uuid	UserID
string	Title
string	Description
datetime	StartTime
datetime	EndTime

sends

relates_to

NOTIFICATION	
uuid	NotificationID
uuid	UserID
uuid	TaskID
enum	Type
string	Message
datetime	Timestamp
enum	Status

Use Case 8: Deleting a Task

Primary Actor: User

Scenario:

1. User selects a task from the task list on the home screen.

2. User clicks on the 'trash' icon next to the task to delete it.

3. User confirms the deletion in the prompt.

4. These use cases detail the different ways a user can interact with the application, from setting up an account, to creating and managing tasks, to handling notifications.

1. Field Name	Data Type	Description
TaskID	UUID	A unique identifier for each task.
UserID	UUID	The unique identifier of the user who created the task.
Title	String	The title of the task.
Description	String	The description of the task.
StartTime	DateTime	The start time of the task.
EndTime	DateTime	The end time of the task.
Timer	TimeSpan	The duration of the task's timer.
BreakTime	TimeSpan	The duration of the task's break time.
Status	Enum	The current status of the task. This could be an enumeration of different statuses such as "Pending", "Ongoing", "Completed", "Cancelled", etc.

USER

uuid	UserID
string	Username
string	Password
string	Email

creates

TASK

uuid	TaskID
uuid	UserID
string	Title
string	Description
datetime	StartTime
datetime	EndTime
timespan	Timer
timespan	BreakTime
enum	Status