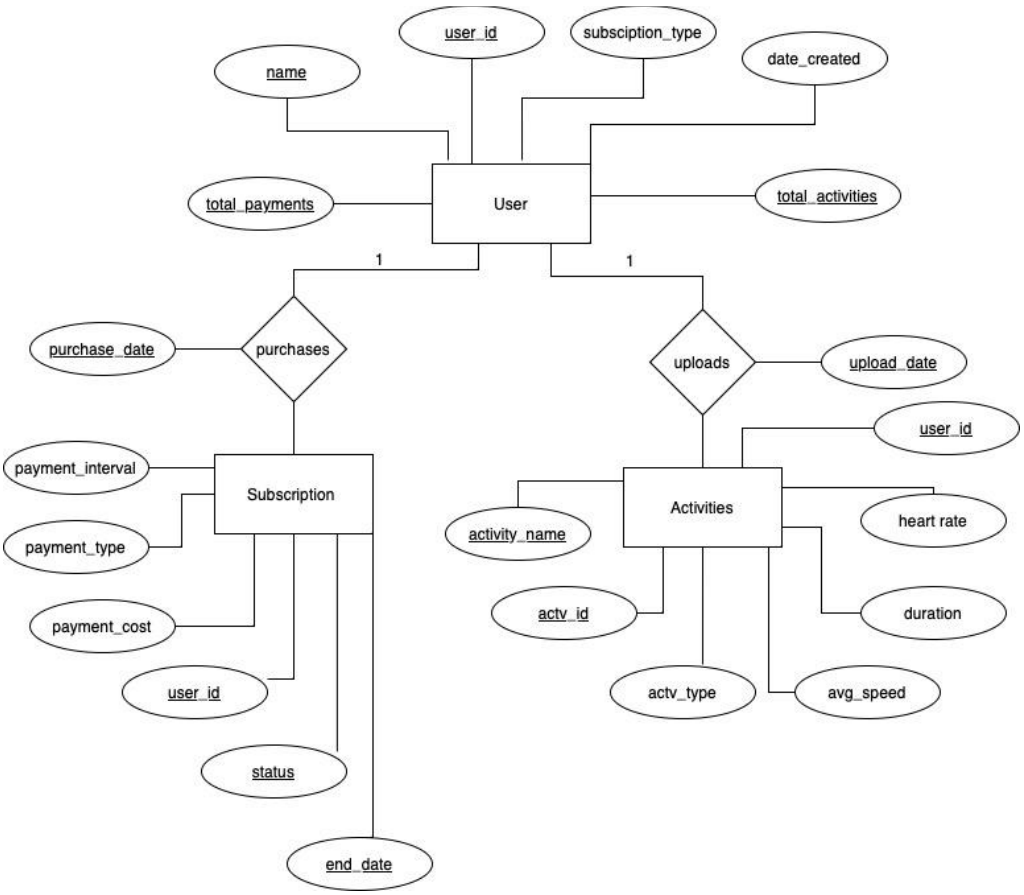
The database application I want to work with and model for the quarter is for a sports social media platform (like Strava). The database will have information on users which can include their names, subscription types, user IDs, and other information on the user. These users may purchase a subscription upgrade for their account which will include information on monthly/annual payments, payment type, start date of subscription, status of subscription, etc. Lastly, the users will be uploading activities to the platform which will include data on activity type, activity ID, duration, average speed, heart rate, calories burned, and other relevant data. One unique aspect that may be a difficult feature is in storing uploaded photos with users' activities. This type of data would need to be stored in a NoSQL database and linked to this SQL database application.



One high-level interaction can be described in the *UpgradeSubcription* function. With this functionality, a user will have the ability to upgrade their account to a "premium" tier. The Users table will be updated with subscription type and adding total payments. In addition, a new record will be added to the Subscriptions table. Another high-level interaction can be described with the *UploadActivity* function. This interaction involves users uploading activities to the platform. When an activity is loaded, a new record with all the Activities table attributes is appended. In addition, the Users table will be updated with an increase in the user's total activities count.