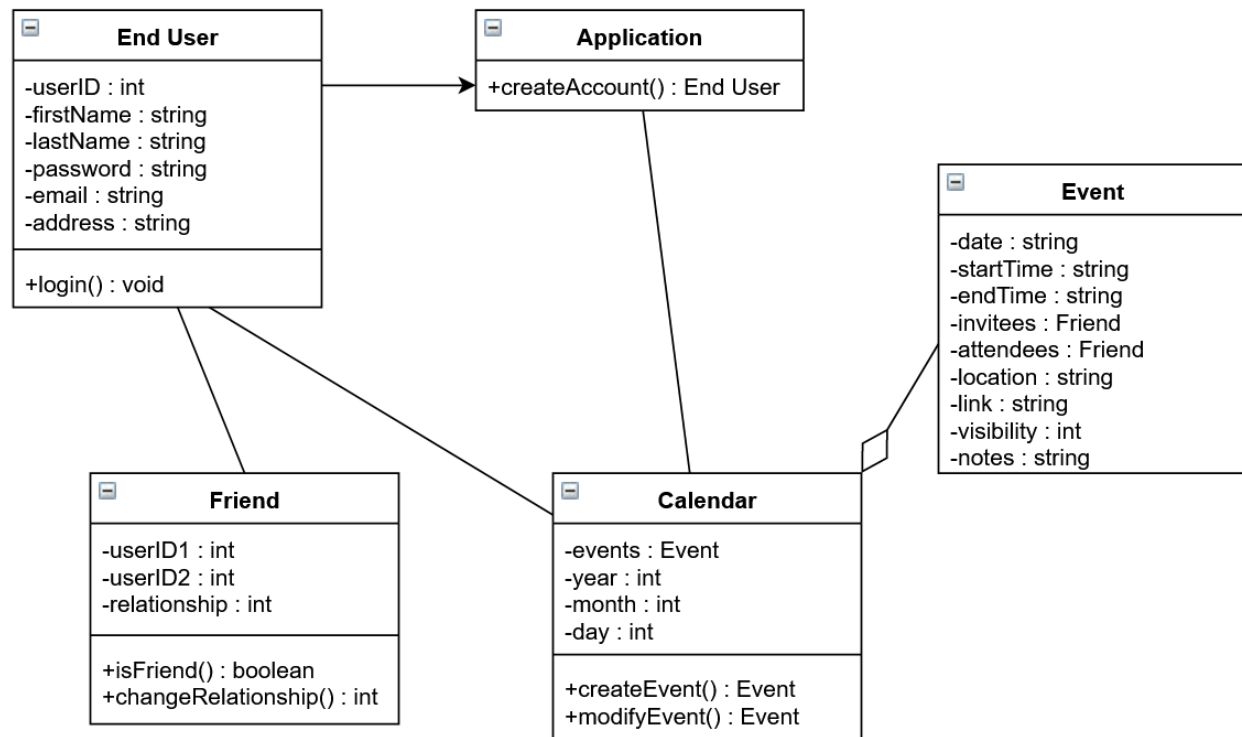The class diagram for the core system is shown below, with descriptions of the classes following the diagram.

End User: A class that stores all relevant user information.
- **userID:** Unique username used when logging into the system.
- **firstName/lastName:** The user's first/last name.
- **password:** The user-defined password to protect their information.
- **email:** The user's email address.
- **address:** The user's home address.
- **login():** Function allowing the user to log into their account.

Application: Singleton class that displays the UI and contains the Calendar class within it.
- **createAccount():** Function to create new End User objects.

Friend: A data structure that contains all friend relationships in the database.
- **userID1/userID2:** IDs of both users defining the relationship.
- **relationship:** numerical representation of the relationship of the two users.
- **isFriend():** Function that returns whether or not the two users are friends.
- **changeRelationship():** Function that changes the relationship between the users and returns the new relationship integer.

Calendar: A class that contains current date/time information as well as handles creation and modification of child Event objects.
- **events:** List of Events contained within the Calendar object.
- **year:** Current year.
- **month:** Current month.
- **day:** Current day.
- **createEvent():** Function to create a new Event with all required information.

- **modifyEvent():** Function to modify a pre existing event contained within the Calendar.

Event: A child of Calendar containing all relevant information pertaining to its own event.

- **date:** The date the Event is occurring on.
- **startTime:** The start time of the Event.
- **endTime:** The end time of the Event.
- **invitees:** List of Friends invited to join the Event.
- **attendees:** List of Friends who have confirmed joining the Event.
- **location:** Optional location of the Event.
- **link:** Optional link to the web location of the Event.
- **visibility:** Whether or not the Event is visible to Friends or invisible.
- **notes:** Any additional notes saved for the Event.