# HQ-Calendar

Preface

HQ-calendar is a calendar/scheduling application which allows users to conveniently create events, sign up for events and comment on events and provides hosts and administrators with tools to manage the application.
The application back end is a RESTful API made with Node.js using Express web framework and PostgreSQL as the database. The front end is made with React which is a modern JavaScript library developed by Facebook. Both front and back end are run in an UNIX server with Nginx used as http server for front end and reverse proxy for back end.

Use case
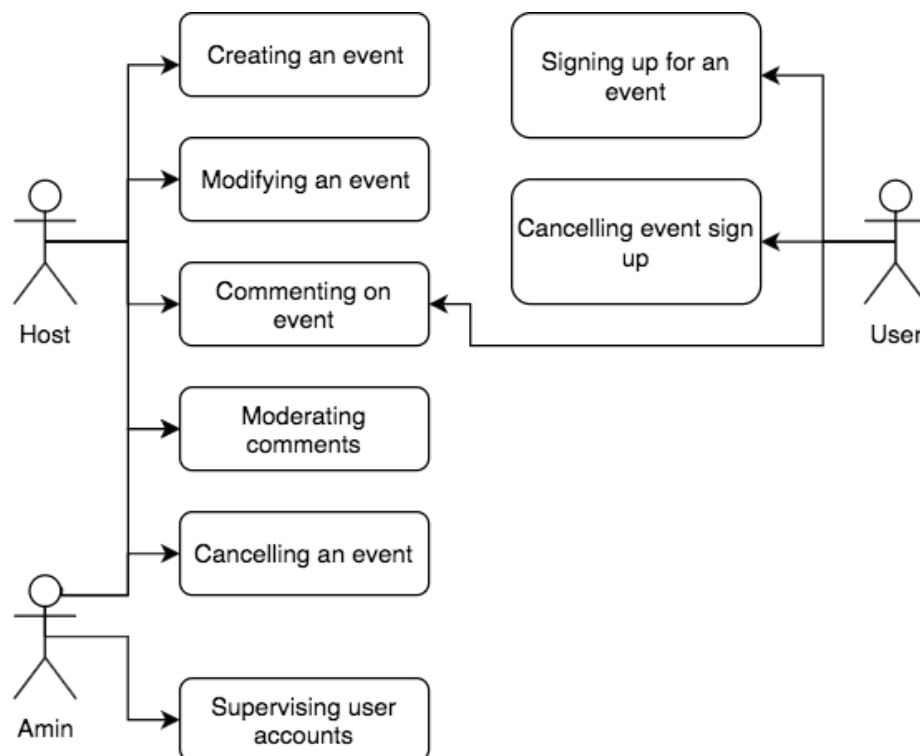
User groups

User is any registered user.
Host is an user who has created an event or has been assigned as a host for an event.
Admin is a superuser appointed by application owners.

Use cases

User use cases
Signing up for an event:
> anyone can sign up for an event signifying they are attending the event
Cancelling event signup:
> Users can withdraw their signup from events they signed up for
Commenting on events:
> Depending on event anyone or event attendees can post comments on the event page.

Host use cases
Creating an event:
> Anyone can create an event. Doing so they become the host of the event and can add other hosts and modify event information.
Cancelling an event:
> Hosts can cancel an event they have created.
Moderating event comments:
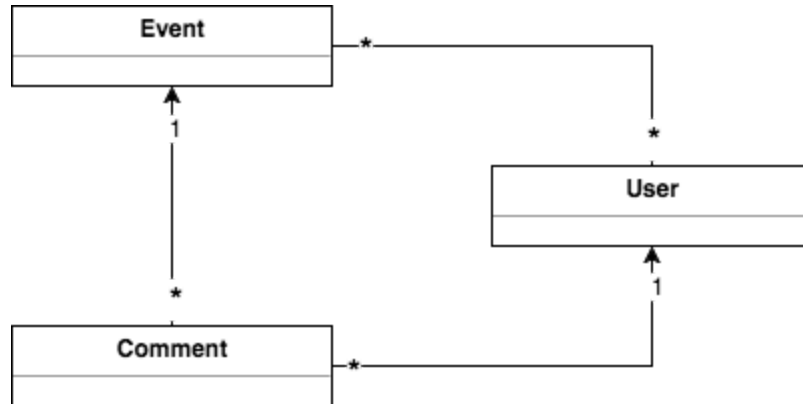> Hosts can delete comments from their events.

Admin use cases
Managing accounts:
> Admins can modify and ban users from the app or disable their event creating privileges.
Everything else:
> Admins are superusers and can do every possible action on the app.

Database diagrams

Event

Attribute	Type	Description
Name	String, max. 50 characters	Name of the event
Description	String	Information about the event
Starttime	Timestamp	When the event starts
Endtime	Timestamp	When the event ends
Host	Integer	User who is hosting the event

User

Attribute	Type	Description
Username	String, max. 30 characters	Name of the user
Email	String, max. 50 characters, unique	Users email address
Password	String	Salted password hash
Admin	Boolean	Indicate if the user is admin

Comment

Attribute	Type	Description
Author	Integer	Who wrote the comment
Event	Integer	What event is the comment in
Posted	Timestamp	When the comment was posted
Content	String	Content of the comment

Participants

*	FK	user_id:int
*	FK	event_id:int
	PK	(user_id, event_id)

1

1

Events

PK	ID:int
	name:String
	description:String
	starttime:timestamp
	endtime:timestamp
FK	host:int

1

Users

PK	ID:int
	username:String
	email:String
	password:String
	admin:Boolean

1

Comments

	PK	ID:int
		content:String
		posted:timestamp
*	FK	author:int
*	FK	event:int