

# User Manual EventStack

## EventManagerSystem

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# 1. Introduction

## 1.1 Overview

EventStack is an enterprise-grade event management platform designed to facilitate event discovery, organization, and administration. The system provides role-based access control with specialized interfaces for end users, event organizers, and system administrators, ensuring that each user type has access to appropriate functionality tailored to their responsibilities.

## 1.2 Purpose of This Document

This user manual provides comprehensive instructions for installing, configuring, and operating the EventStack platform. It is intended for system administrators responsible for deployment, end users who will interact with the platform, event organizers managing events, and administrators overseeing system operations.

## 1.3 System Capabilities

EventStack offers the following core capabilities:

1. **Event Discovery and Search:** Advanced browsing and search functionality for discovering events across multiple categories
2. **Event Bookmarking:** Personal event management through bookmarking and favorites
3. **Event Lifecycle Management:** Complete event creation, editing, and management workflows for organizers and administrators
4. **Financial Management:** Comprehensive expense tracking with detailed analytics and reporting
5. **AI-Powered Budget Analysis:** Intelligent budget assistant (Budget Bot) providing real-time financial insights and recommendations
6. **User Administration:** Enterprise-level user management, role assignment, and system analytics for administrators

# 2. System Requirements

## 2.1 Server-Side Requirements

Operating System : Windows 10, macOS 10.15, Ubuntu 20.04+

[Node.js](#) : 18.0.0                      PostgreSQL : 12.0

Npm : 9.0.0                              RAM : 4

## 2.2 Client-Side Requirements

Web Browser : Chrome 90+, Firefox 88+, Edge 90+, or Safari 14+

JavaScript : Enabled

# 3. Installation Guide

## 3.1 Prerequisites

Ensure all required software (Node.js, npm, PostgreSQL) is installed on the host.

### 3.1.1 Node.js and npm

1. Download and install the LTS version from <https://nodejs.org/>.
2. Verify installation:  
`node --version`  
`npm --version`

### 3.1.2 PostgreSQL

1. Download and install from <https://www.postgresql.org/download/>.
2. During installation, record:
  - Host (typically `localhost`)
  - Port (default `5432`)
  - Superuser credentials
3. Ensure the PostgreSQL service is running.
- 4.

### 3.2 Deployment Script Options

DbName	Database name (default: <code>eventstack</code> )
DbHost	Database host (default: <code>localhost</code> )
DbPort	Database port (default: <code>5432</code> )
DbUser	Database user (default: <code>postgres</code> )
DbPassword	Database password
BackendPort	Backend port (default: <code>4000</code> )
FrontendPort	Frontend port (default: <code>5173</code> )

```
eventstack > > deploy-eventstack.ps1 > ...
1 param(
2     [string] $DbName = 'eventstack',
3     [string] $DbHost = 'localhost',
4     [int] $DbPort = 5432,
5     [string] $DbUser = 'postgres',
6     [string] $DbPassword = 'changeme',
7     [string] $BackendHost = 'localhost',
8     [int] $BackendPort = 4000,
9     [string] $FrontendHost = 'localhost',
10    [int] $FrontendPort = 5173,
11    [string] $JwtSecret = 'change-me-now',
12    [string] $CorsOrigins = 'http://localhost:5173',
13    [switch] $SkipDb,
14    [switch] $SkipBackend,
15    [switch] $SkipFrontend,
16    [switch] $LoadSampleData,
17    [switch] $ProdFrontend
18 )
19
```

### 3.3 Automated Installation (Recommended)

The deployment PowerShell script automates database setup, dependency installation, and service startup.

Obtain the project

```
git clone [repository-url]
cd eventstack
```

1. Run the deployment script  
Open PowerShell, navigate to the project root, e.g.:

```
cd D:\Projects\2YP\Event\eventstack
.\deploy-eventstack.ps1
```

```
PS D:\Projects\2YP\Event> cd .\eventstack\
PS D:\Projects\2YP\Event\eventstack> .\deploy-eventstack.ps1
```

```
=====
Deployment Complete
=====
Frontend : http://localhost:5173
Backend  : http://localhost:4000
Database : postgresql://postgres@localhost:5432/eventstack

Press ENTER to drop database and cleanup, or CTRL+C to exit (database will be kept).

Press ENTER to drop database and cleanup: |
```

2. The script will:

- Check for Node.js, npm, and PostgreSQL
- Create the database (if not present)
- Apply schema and create the default admin account
- Generate backend `.env`
- Install backend and frontend dependencies
- Start backend (default `http://localhost:4000`)
- Start frontend (default `http://localhost:5173`)

### 3.4 Stopping EventStack

- To stop services but keep the database: press **Ctrl + C** in the deployment window.
- To stop services **and** drop the database: press **Enter** when prompted by the script.

### 3.5 Manual Installation (Advanced)

#### Backend

`cd apps/backend`

`npm install`

`# create .env with DATABASE_URL, JWT_SECRET, etc.`

`# initialize database using psql or pgAdmin`

```
PS D:\4th Semester\2YP\NexEvent_Event_Management_System\eventstack\apps\backend> npm run dev

> @eventstack/backend@0.1.0 dev
> tsx src/index.ts

{"level":30,"time":1763555414633,"pid":2756,"hostname":"DESKTOP-RH3043P","msg":"Server listening at http://0.0.0.0:4000"}
█
```

#### Frontend

`cd apps/frontend`

`npm install`

`npm run dev`

Access the frontend at <http://localhost:5173>.

```
❖ PS D:\4th Semester\2YP\NexEvent_Event_Management_System\eventstack\apps\frontend> npm run dev

> @eventstack/frontend@0.1.0 dev
> vite

VITE v5.4.20 ready in 540 ms

→ Local:   http://localhost:5173/
→ Network: use --host to expose
→ press h + enter to show help
█
```

## 4. Getting Started

### 4.1 First-Time Access

Once servers are running, open:

<http://localhost:5173>

The home page displays a list of available events. You can browse without logging in, but an account is required to bookmark events, manage profiles, create events, or track expenses.

### 4.2 Default Admin Account

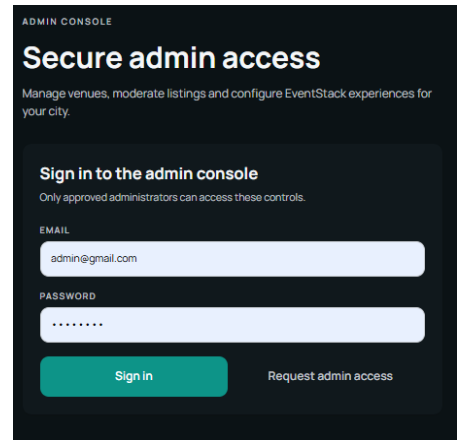
During installation, the following default admin account is created:

- **Email:** [admin@eventstack.com](mailto:admin@eventstack.com)
- **Password:** [admin123](#)
- **Role:** Administrator

### 4.3 Logging In

1. Click “**Profile Icon**” in the navigation bar.
2. Enter your email and password.
3. Click “**Login**”.

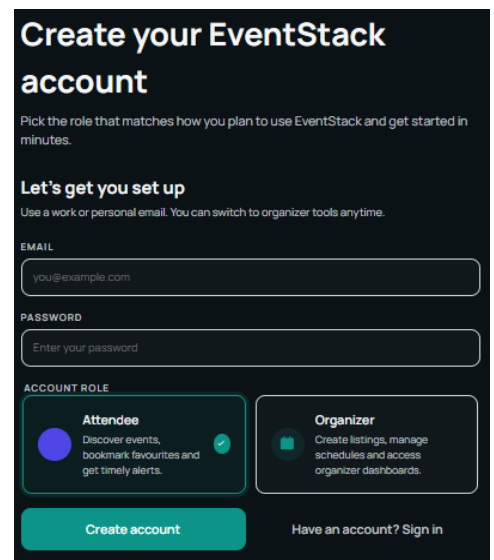
For admin access, you can also navigate directly to </admin/login>.



The screenshot shows the 'ADMIN CONSOLE' login page. It has a dark background with white text. The title is 'Secure admin access'. Below it, a subtitle says 'Manage venues, moderate listings and configure EventStack experiences for your city.' There is a section 'Sign in to the admin console' with the note 'Only approved administrators can access these controls.' Below this are input fields for 'EMAIL' (containing 'admin@gmail.com') and 'PASSWORD' (masked with dots). At the bottom are two buttons: 'Sign In' (green) and 'Request admin access' (white).

### 4.4 Creating a New Account

1. Click “**Profile Icon**”.
2. Select “**CreateAccount**”.
3. Provide:
  - Email
  - Password (minimum length as configured)
  - Role (Organizer / Attendee)
4. Submit the form to create your account.  
You will be logged in automatically.



The screenshot shows the 'Create your EventStack account' page. It has a dark background with white text. The title is 'Create your EventStack account'. Below it, a subtitle says 'Pick the role that matches how you plan to use EventStack and get started in minutes.' There is a section 'Let's get you set up' with the note 'Use a work or personal email. You can switch to organizer tools anytime.' Below this are input fields for 'EMAIL' (containing 'you@example.com') and 'PASSWORD' (with the placeholder 'Enter your password'). At the bottom, there are two selectable roles: 'Attendee' (with a purple circle icon and a checkmark) and 'Organizer' (with a green square icon). Below the roles are two buttons: 'Create account' (green) and 'Have an account? Sign in' (white).

## 5. User Roles

### 5.1 Regular User (USER)

- Browse and search events
- View event details
- Bookmark favorite events
- View basic profile information

## 5.2 Event Organizer (ORGANIZER)

Includes all USER capabilities plus:

- Create and edit events
  - Manage event images
  - Track and manage expenses
- Use Budget Bot for event-specific financial analysis

## 5.3 Administrator (ADMIN)

Includes all ORGANIZER capabilities plus:

- Manage all events in the system
- Manage users (view, edit roles, activate/deactivate, delete)
- View system-wide analytics and usage metrics
- 

# 6. Features

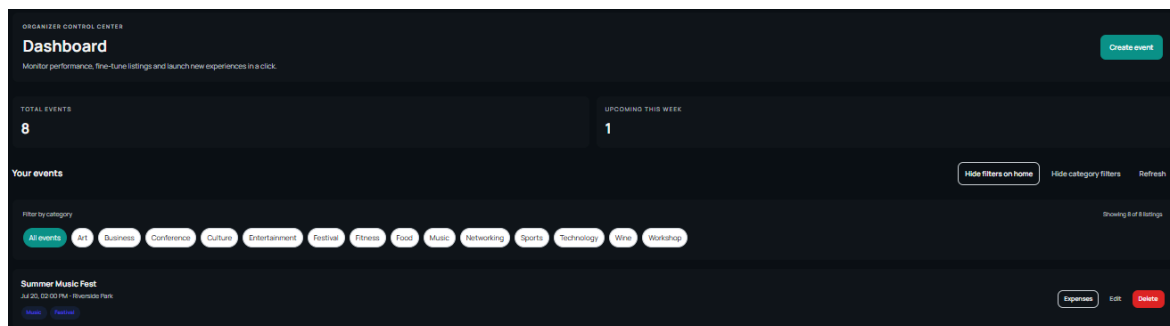
## 6.1 Regular User Features

Regular users have access to features designed for discovering and managing events:

- **Browse Events**  
View all published events on the home page.
- **Search Events**  
Search using keywords, event title, venue, or categories.
- **Filter Events**  
Apply filters such as event category and date range.
- **View Event Details**  
See full event descriptions, timing, venue information, and images.
- **Bookmark Events**  
Save events to a personal bookmarks list for quick access later.
- **Manage Profile**  
View account information including registered email and role.

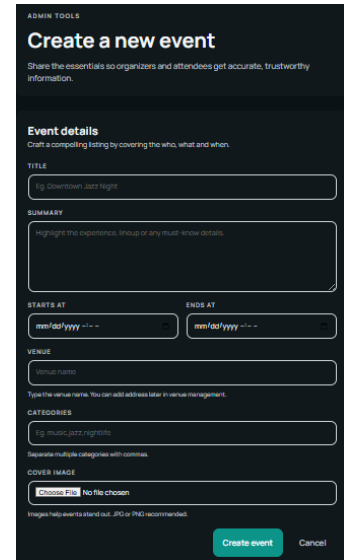
## 6.2 Event Organizer (ORGANIZER) Features

Organizers manage event creation and financial tracking. They have all user-level features PLUS:



### 6.2.1 Event Management

- **Create New Events**  
Add event title, summary, timings, venue, and categories.
- **Edit Events**  
Update event information anytime.
- **Delete Events**  
Remove events that are cancelled or outdated.
- **Add Event Images**  
Upload multiple images to visually enhance event pages.
- **Manage Event Images**  
Replace or delete existing images (if system allows).



The screenshot shows a dark-themed form titled 'Create a new event' under the 'ADMIN TOOLS' header. Below the title is a subtitle: 'Share the essentials so organizers and attendees get accurate, trustworthy information.' The form is divided into sections: 'Event details' with a subtitle 'Craft a compelling listing by covering the who, what and when.' It includes input fields for 'TITLE' (with an example 'Eg. Downtown jazz nights'), 'SUMMARY' (with a subtitle 'Highlight this experience, group or any other show details'), 'STARTS AT' and 'ENDS AT' (both with date pickers), 'VENUE' (with a subtitle 'Type the venue name. You can add address later in venue management.'), 'CATEGORIES' (with a subtitle 'Separate multiple categories with commas.' and an example 'Eg. music, jazz, nights'), and 'COVER IMAGE' (with a subtitle 'Images help events stand out... JPG or PNG recommended.' and a 'Choose file' button). At the bottom right are 'Create event' and 'Cancel' buttons.

### 6.2.2 Expense Tracking

- **Add Event Expenses**  
Add expenditures with fields like: label, category, vendor, cost, quantity, date.
- **Edit/Delete Expenses**  
Update financial entries or remove incorrect ones.
- **Track Expense Status**  
Mark expenses as PLANNED, COMMITTED, or PAID.
- **Expense Summary Dashboard**

### 6.2.3 Budget Bot (AI Assistant)

- **Ask Budget Bot Questions**
- **Receive AI-Generated Insights** to assist financial decision-making.

## 6.3 Administrator (ADMIN) Features

Administrators have full system access, combining all User and Organizer privileges with advanced system controls.

### 6.3.1 User Management

- **View All Users**  
See complete user list: email, role, account status.
- **Edit User Roles**  
Change role to USER, ORGANIZER, or ADMIN.
- **Activate / Deactivate Accounts**  
Temporarily disable user access when required.
- **Delete Users**  
Permanently remove users (including bookmarks and owned events).

### 6.3.2 Event Management

- **View All Events** (not only their own)  
Search, filter, and inspect events created by any organizer.
- **Edit Any Event**  
Modify event details, timings, categories, or images.
- **Delete Any Event**  
Remove inappropriate or outdated events.

### 6.3.3 Analytics & Monitoring

- **View System Analytics Dashboard**  
Includes:
  - Total events
  - Total users
  - Active events
  - Upcoming events

## 7. Troubleshooting

### 7.1 Common Issues

#### Issue: Application does not load

- Verify both backend (:4000) and frontend (:5173) are running.
- Check firewall rules on those ports.
- Review browser console for errors.

#### Issue: Login fails despite correct credentials

- Confirm you are on the correct login path (user/organizer/admin).
- Check if the account is deactivated; contact an admin if needed.
- Clear browser cache or try a different browser.

#### Issue: Database connection errors

- Confirm PostgreSQL is running.
- Verify `DATABASE_URL` and other DB settings in `.env`.
- Ensure the database and schema have been created successfully.

#### Issue: Image upload fails

- Check file size (keep under recommended limits).
- Confirm supported file formats.
- Review backend logs for detailed error messages.

#### Issue: Budget Bot not responding

- Ensure `GEMINI_API_KEY` is set and valid.
- Confirm backend has internet connectivity.



## 7.2 Getting Help

1. **Browser Console** – Inspect JavaScript and network errors.
2. **Server Logs** – Review backend logs for stack traces and timestamps.

## 8. Reference

### 8.1 Supported File Formats (Images)

Format	Extensions
JPEG	<a href="#">.jpg</a> , <a href="#">.jpeg</a>
PNG	<a href="#">.png</a>
GIF	<a href="#">.gif</a>
WebP	<a href="#">.webp</a>

Recommended maximum file size: **10 MB per image**.

### 8.2 System Endpoints (Local Development)

Service	URL	Description
Frontend Application	<a href="http://localhost:5173">http://localhost:5173</a>	Main web UI
Backend API	<a href="http://localhost:4000">http://localhost:4000</a>	REST API server
API Health Check	<a href="http://localhost:4000/api/health">http://localhost:4000/api/health</a>	Basic service status

### 8.3 Default System Accounts

Role	Email	Password
Administrator	<a href="mailto:admin@eventstack.com">admin@eventstack.com</a>	<a href="#">admin123</a>

## 9. Conclusion

This manual outlines the installation, configuration, and day-to-day use of the EventStack platform for all user roles. For deployment-specific details or customizations not covered here, consult your system administrator or the project's technical documentation.