

User Manual for Chemnitz Cultural Sites Web Application

Welcome to the Chemnitz Cultural Sites web application. This manual will guide you step-by-step through all the features of the website so you can explore the cultural highlights of Chemnitz easily.

Technical Setup and Running Manual

This section guides you through setting up and running the Chemnitz Cultural Sites web application, covering both backend and frontend parts.

Backend Setup and Running

1. Prerequisites

- Node.js (v14+) and npm installed
- MongoDB server running locally or use a MongoDB Atlas cloud cluster
- Visual Studio Code (VS Code) recommended as your code editor

2. Open the Project

- Extract the project files if zipped.
- Open VS Code, then click File > Open Folder and select your project root (where Server.js and package.json resisded in Backend folder)

3. Install Dependencies

In VS Code, open the integrated terminal (Terminal > New Terminal) and run:

---- npm install ----

This installs required packages including Express, Mongoose, dotenv, bcrypt, and jsonwebtoken.

4. Configure Environment Variables

- Ensure a .env file is present in the Backend folder.
- Add or verify these variables with your own MongoDB URI and JWT secret:
---- MONGO_URI=your_mongodb_connection_string ----
---- JWT_SECRET=your_jwt_secret_key ----

5. Initialize the Database

Run the initialization script to seed your database with places, users, and comments:

---- node Scripts/initDB.js ----

If successful, this will clear existing collections and insert initial data.

6. Start the Backend Server

Run the backend server with:

---- node server.js ----

You should see output like:

---- MongoDB connected ----

---- Server running on <http://localhost:4000> ----

The backend will serve API endpoints and the frontend static files.

7. Project Folder Overview (Backend)

- Server.js — Backend entry point
- package.json — Project metadata and dependencies
- .env — Environment variables

- Scripts/initDB.js — Database seeding script
- routes/ — API route handlers
- models/ — Mongoose schemas for Place, User, Comment
- controllers/ — Logic for handling requests
- utils/ — Middleware and helper functions

Frontend Setup and Usage

1. Overview of Frontend Files

- index.html — Main interactive map page
- login.html — Standalone login page
- register.html — Standalone registration page
- dashboard.html — User dashboard page
- css/style.css — Styling for the frontend
- public/ — Static assets like images(located in main folder)
- JavaScript is embedded mainly inside index.html for UI and API interaction

2. Running the Frontend

The frontend is served statically by the backend server.

- After starting the backend (node server.js), open your browser and go to:
---- <http://localhost:4000/> ----
- The welcome popup will show, then the interactive map page loads.
- Use Register and Login modals in the top nav to create or access your account.

3. Using Frontend Features

- Welcome Popup: Shows on site load and can be dismissed by clicking or waiting 4 seconds.
- Map Interface: Search, filter, zoom, and select cultural sites.
- Authentication: Register, login, profile management, logout.
- User Profile: Edit bio, view username/email, logout.
- Favorites & Comments: Add favorites, post comments on sites.

4. Development Notes

- To customize styles, edit css/style.css.
- To modify frontend logic, edit index.html or add JS files in the Frontend folder.
- Refresh the browser to see changes .

5. Troubleshooting

- Ensure backend server is running before opening the frontend URL.
- Check .env variables for correctness, especially MongoDB connection.
- Use browser dev tools console for errors.
- Clear browser cache or use incognito mode if old versions persist.

User Guide for Website Interaction

This section provides a step-by-step guide on how to navigate and use the Chemnitz Cultural Sites web application. Whether you are a first-time visitor or a registered user, this guide will help you explore the map, register an account, log in, manage your profile, and enjoy all the features designed to enhance your experience discovering Chemnitz's cultural landmarks.

1. Opening the Website

- When you first open the website, you will see a welcome image with a greeting message.
- This intro image will automatically disappear after 4 seconds.
- Alternatively, you can click anywhere on the intro image to close it immediately.
- After the image closes, you are taken to the main map page where you can start your journey.

2. Main Map Page Overview

- The page includes navigation icons:
 - Home icon: Returns you to this main map page anytime.
 - Places: shows complete places list
 - Categories list: Allows you to filter cultural sites by type (museums, theaters, galleries, restaurants).
 - Search bar: Lets you search for cultural places by keywords or names.
 - My Location icon: shows you the current location
 - Popup markers on map: It can also take you to your desired places.
 - Register and Login buttons for creating or accessing your user account.

3. Registering a New User

- Click on the Register button to create a new account.
- You will see a registration form asking for:
 - Username
 - Email address
 - Password
- Fill out all the fields and click the Register button.
- After successful registration, a popup message will appear saying: "Welcome [your username], registration successful."
- Close the popup and proceed to login.

4. Logging Into Your Account

- Click on the Login button .
- Enter the email address and password you used during registration.
- Click the Login button.
- Upon successful login, a popup will greet you with: "Welcome back, [your username]."
- Now you are logged in and can access user-specific features.

5. Post-login Features and User Profile

Once logged in, in addition to the earlier icons, you will see a user profile avatar icon.

Accessing and Editing Your Profile

- Click the avatar icon to open your user profile.
- Here you can see your:
 - Username (not editable)
 - Email (not editable)
 - Bio (editable) — write anything about yourself here.
- After adding or updating your bio, click Save Changes to update your profile.
- You will also find a Logout button to sign out of your account securely.

6. Navigating and Interacting with the Map

- The map shows cultural sites as popup markers. Click on any marker to open details about the place.
- Use the “+” and “-” buttons at the top-left corner of the map to zoom in and out.

Place Details Popup

- When you select a place, you will see:
 - Place Name, Short Description , Opening hours, Parking Information, Directions button, Comments section and a star icon after place name.

7. Using the Directions Feature

- Click the Directions button on a place’s detail popup to open the directions page.
- Here you can select your mode of transport from options like:
 - Walking, Bicycle, Car, Train
- The map will then provide directions from your current location to the selected cultural site.

8. Additional Features for Logged-in Users

Adding Places to Favorites

- When logged in, you can add any cultural site to your Favorites list by clicking the star icon beside places name and then the whole page will be highlighted.
- You can manage your favorites anytime in your user dashboard.

Commenting on Places

- You can write comments and submit them by clicking a submit button and also u can see the comments u submitted in the cultural site’s detail page .

9. Logging Out

- To end your session, click the Logout button in your profile.
- This will log you out and return you to the public map page.

Summary

This manual has guided you through all essential aspects of the Chemnitz Cultural Sites web application:

- **Technical Setup:**
 - Installing and configuring the backend environment
 - Initializing the MongoDB database with sample data
 - Starting the backend server and serving the frontend files
 - Overview of project structure and development notes
- **Frontend Usage:**
 - Opening and navigating the website interface
 - Registering and logging into your account
 - Managing your user profile and updating your bio
 - Exploring cultural sites on the interactive map
 - Using directions with different transport modes
 - Adding favorites and commenting on places

This manual aims to provide a smooth experience for both developers setting up the system and users exploring Chemnitz’s cultural landmarks through this interactive and user-friendly web application.