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Timelinexpress System DESIGN  
Document

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# **Introduction**

**Description of the Application**

The ~~History~~ Timeline App is a user-friendly, interactive application designed to help people explore historical events in an ~~more~~ engaging and accessible way. ~~At its core,~~ the app lets users view, compare, and interact with historical timelines, offering a visual and customizable approach to learning about the past.

Events are stored in an integrated ~~connected~~ database, allowing users to search for key historical moments, create and manage entries, and explore timelines based on themes, periods, or event types.

**Purpose of This Design Document**

The purpose of this ~~design~~ document is to define the design details ~~goals,~~ and functionality, ~~and system requirements~~ of the ~~History~~ Timeline App. It serves as a ~~clear and~~ shared reference point for the development team, designers, and stakeholders throughout the ~~planning and building~~ implementation phase of the project ~~process.~~

By outlining the app’s core features, ~~user needs,~~ technical components, and performance expectations, this document ensures that everyone involved in the project has a mutual understanding of what the application will do, and how it will work, ~~and why it matters~~.

**What This Document Contains**

This design document includes the following sections:

* Introduction, including a high-level overview of ~~what~~ the ~~History~~ Timeline App ~~is and who it’s for~~.
* A design level class diagram including pseudocode for each class.
* Statechart diagrams for each class
* Design level sequence diagrams for each use case identified in the System Requirements Document

# **Design Level Class Diagram**

Refine your Class Diagram from your Analysis phase to contain the following additional information:

* Attributes: data types, initial values, range of values (if appropriate)
* Methods: return types, parameters
* Pseudocode for each method

# **Statechart Diagrams**

## Timeline class

A diagram of a process

AI-generated content may be incorrect.

## Event class

A diagram of a data flow

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## Visualization class

## User class

A diagram of a user profile

AI-generated content may be incorrect.

## Authentication class

A diagram of a login

AI-generated content may be incorrect.

## DatabaseManager class

A diagram of a database

AI-generated content may be incorrect.

## SearchEngine class

The SearchEngine class provides services and does not have a state machine diagram.

# **Sequence Diagrams**

## Use Case 1: Login to TimelineXpress

A screenshot of a document

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## Use Case 2: Create Timeline

A diagram of a pipe

AI-generated content may be incorrect.

## Use Case 3: Edit Timeline

A diagram of a diagram

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## Use Case 4: View Saved Timelines

A diagram of a company

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## Use Case 5: Display a Timeline

A diagram of a diagram

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## Use Case 6: Create Event

A diagram of a project

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## Use Case 7: Edit Event

A diagram of a project

AI-generated content may be incorrect.