

# CA Web and Mobile App Framework



<b>Overview</b>	<b>3</b>
Authentication	4
Password Recovery	4
Account Setup	4
User, Roles, and Permissions	4
Customer Relationship Management (CRM)	4
Event Calendar	5
Document Management	5
Storage Options	5
Report Manager	5
Dashboard	5
General Settings	5
AI Features	6
Components	6
Style / Theme Configuration	7
Mobile Application	7
<b>Technologies</b>	<b>8</b>
Portal	8
Mobile	8
Architectures or on Cloud Supported	8
Security	8
CI/CD	8



## Overview

The ContentActive framework offers a robust foundation for web and mobile application development, significantly accelerating the development process compared to building from scratch. Its comprehensive suite of pre-built features and components addresses critical aspects of modern applications, including:

- **Accelerated Development & Reduced Time-to-Market:** By providing out-of-the-box solutions for authentication, user management, CRM, reporting, and more, the framework drastically cuts down development time and effort. This allows for faster deployment of applications, getting solutions to users more quickly.
- **Enhanced Security & Compliance:** The framework incorporates essential security measures like secure API communication, database encryption, and robust session management. This built-in security reduces the burden on developers to implement these features from scratch, ensuring a more secure application from the outset.
- **Scalability & Flexibility:** With support for various storage options (local, AWS S3, Azure Blob) and a modular component architecture, the framework is designed to scale with your application's needs. Its customizable nature allows for adaptation to specific business requirements, offering both web and mobile capabilities.
- **Cost-Effectiveness:** Leveraging a pre-built framework reduces the need for extensive custom coding and testing, leading to lower development costs and a better return on investment. The inclusion of AI features further enhances efficiency by automating tasks and providing intelligent insights.
- **Improved User Experience & Productivity:** Features like customizable dashboards, advanced data grids, real-time chat, and AI-powered assistants enhance the user experience and boost productivity. The AI features, in particular, provide intelligent data interaction, document processing, and business data queries, empowering users with quick and accurate information.
- **Streamlined Operations & Maintenance:** The framework's structured approach to development, along with CI/CD setup and version control, simplifies ongoing maintenance and updates, ensuring the long-term viability and stability of the application.

This framework provides complexities of modern application development, allowing you to focus on unique business logic and deliver high-quality, secure, and performant applications efficiently.

## Authentication

- **Basic Authentication:** A simple authentication method where a user provides a username and password to access a system.
- **SSO via Google Account:** Single Sign-On (SSO) allowing users to log in using their Google account credentials.
- **SSO via Microsoft Account:** Single Sign-On (SSO) allowing users to log in using their Microsoft account credentials.
- **Magic Link Authentication:** A passwordless authentication method where users receive a one-time-use link to log in.
- **2 Factor Authentication via Email:** An additional security layer where users receive a code via email to confirm their identity.
- **2 Factor Authentication via Text Message:** Similar to email, but the verification code is sent via SMS text message.
- **2 Factor Authentication via Authenticator App:** Users authenticate through an app like Google Authenticator, providing a time-sensitive code.
- **Auth0 and Okta Integration Authentication:** Using Auth0 and Okta provides access to Single Sign On SSO for many systems

## Password Recovery

- **Forgot Password:** Option for users to recover their account if they've forgotten their password.
- **Reset Password:** Process for users to create a new password after they've requested recovery.

## Account Setup

- **Sign Up Process:** The procedure for new users to create an account within the system.

## User, Roles, and Permissions

- **Manage Users:** Admins can create, edit, or delete user accounts.
- **Manage Roles:** Ability to create and manage different user roles (e.g., Admin, User, etc.).
- **Manage Role Permissions:** Assigning or modifying permissions associated with each user role.
- **Row Level Security:** Support based on DB

## Customer Relationship Management (CRM)



- **Manage Leads:** Track and manage sales leads and prospects.
- **Manage Opportunities:** Manage potential sales or business opportunities with specific customers.
- **Manage Contacts:** Maintain and organize contact details of individuals and businesses.
- **Manage Accounts:** Track and manage customer or business accounts.

## Event Calendar

- **Manage Events:** Organize and manage events such as meetings, webinars, or conferences.

## Document Management

- **Manage Documents:** Store, organize, and manage various documents related to business operations.

## Storage Options

- **Local Storage on Server:** Store files directly on the local server.
- **AWS S3 Bucket Storage:** Cloud storage using Amazon Web Services (AWS) S3 buckets.
- **Azure Blob Storage:** Cloud storage using Microsoft Azure Blob Storage.

## Report Manager

- **Custom Report Writer:** A tool to create custom reports based on specific data or criteria.

## Dashboard

- **Custom Widgets by Module:** Personalized widgets or components within the dashboard, tailored to each module.

## General Settings

- **Workflow Setup and Management | Opportunity:** Configure and manage workflows related to sales opportunities.
- **App Keys:** Setup of App Keys, and Tokens for use in the system. Example: OpenAI, Sendgrid, Auth0, Microsoft, Google Maps, etc.
- **Activity Logging:** Log of activities within the system
- **AI Logging:** AI Logging for requests and token usage

## AI Features

- **AI Chat:** AI chatbot that uses artificial intelligence to interact with users based on information contained in DB
- **AI Assistant | Business Data Query stored in DB for Quick Precise and Accurate Results:** An AI-powered assistant that can retrieve and present business data from the database quickly and accurately.
- **AI Vision:** AI-powered API engine for finding, detecting and extracting text and information based on photos, documents and spreadsheets.
- **Document Ask Question:** AI support for images, PDF and Excel documents

## Components

- **Custom Grid:** A customizable data grid with advanced features:
  - **Sort:** Sorting data in ascending or descending order.
  - **Grid Search & Column Search with custom criteria:** Search for specific data within the grid or individual columns using custom filters.
  - **Column Filter:** Filtering data within specific columns.
  - **Column Re-arrangement:** Rearranging columns for better organization or presentation.
  - **Default Export Grid Data:** The ability to export the grid's data to a file (e.g., CSV or Excel).
  - **Column Chooser (Show/Hide Columns):** Allowing users to select which columns are visible in the grid.
  - **Server Side Pagination:** Loading data in pages from the server rather than all at once, improving performance.
- **Map and Grid Map:** Components that pull data from the DB and display onto map with popup, search and narrow down features.
- **Event Calendar and Scheduling:** Component that provides an event schedule/calendar with full management.
- **Time Tracking, Signatures and Logging:** Time tracking on mobile app, logging, signature approvals
- **Chat using SignalR:** Chat feature using Portal and Mobile app for realtime chat
- **GeoFence:** Component providing Geofencing zones and detection from Google Map polygon from Lat/Long data inside or outside of zone.
- **Live Tracking:** Life360 like feature that uses mobile app for realtime Geo tracking and Portal or Mobile app for Visualization. Uses SignalR and Mobile foreground and background modes.

## Style / Theme Configuration

- **Dark Mode:** A dark visual theme for the application, reducing eye strain.
- **Navigation options - Horizontal Nav, Vertical SideNav:** Different layout options for navigation: horizontal bar or vertical sidebar.
- **Branding:** Color and Logo Branding for login, CSS, fonts for the system.

## Mobile Application

- **Authentication:** Mobile versions of the authentication methods mentioned earlier (e.g., basic authentication, SSO, 2FA).
- **Password Recovery:** Mobile-specific processes for password recovery (forgot/reset).
- **Account Setup:** The sign-up process within the mobile app.
- **Customer Relationship Management:** Managing CRM features within the mobile app (leads, opportunities, contacts, accounts).
- **Event Calendar:** Access and manage events from the mobile app.
- **Document Management:** Store and manage documents from mobile devices.
- **Local Storage on Server:** Store files on the server from mobile devices.
- **AWS S3 Bucket Storage:** Cloud storage via AWS for mobile app data.
- **Azure Blob Storage:** Cloud storage via Azure for mobile app data.
- **Dashboard:** View and customize the dashboard through the mobile app.
- **Custom Widgets by Module:** Tailor widgets for each mobile module within the app.
- **Charts:** Sample charts
- **Maps:** Google Maps integration with listing allowing to show and hide map or listing
- **QR Code Scanner:** Scan QR Codes
- **Barcode Scanner:** Multiple barcodes such as PDF417 or VIN numbers
- **Camera:** Take photos and store them
- **Plaid:** Integration with the Plaid.com financial integration system
- **Chat:** Mobile version of realtime chat
- **Time Tracker:** Clock-in and out for time tracking
- **Realtime Location Tracking:** Tracking GPS location in app and in background. Uses SignalR for realtime access.



## Technologies

### Portal

- **Front End:** ReactJS
- **API:** OpenAPI/Swagger
- **Back End:** C# or Node.js
- **DB:** Microsoft SQL Server, MySQL, Postgress

### Mobile

- ReactNative
- IOS
- Android

### Architectures or on Cloud Supported

- AWS
- Azure
- On Premise Windows or Linux

## Security

- **Secure API Communication:** Ensuring that communication between the client and server via APIs is encrypted and secure.
- **DB Encryption:** Encrypting the database to ensure that stored data remains secure.
- **DB Session Management:** Managing user sessions in the database to track active users and prevent unauthorized access.

## CI/CD

- **Setup for Development, Stage and Production Deployments:** Establishing continuous integration and deployment (CI/CD) pipelines for different environments (development, staging, production).
- **Version Control:** Managing different versions of code to track changes and ensure consistency across deployments.