



# Ampact

## Sprint 2 System Design Document

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## Frontend CRC Cards

<b>Class Name:</b> App	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>Manages the routing for the frontend web app</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>React</li><li>React Router</li><li>Landing</li><li>Login</li><li>Registration</li><li>authService</li><li>GroupProfile</li><li>GroupProfileEdit</li><li>GroupProfileCreate</li><li>DefaultPage</li><li>Browse</li></ul>

<b>Class Name:</b> Landing	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>Renders the landing page of the app</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>React Router</li><li>DefaultPage</li></ul>

<b>Class Name:</b> Login	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>Renders the login page for the application</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>Controller</li><li>authService</li></ul>

<b>Class Name:</b> Registration	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b>	<b>Collaborators</b>

<ul style="list-style-type: none"> <li>• Renders the registration page for the application</li> </ul>	<ul style="list-style-type: none"> <li>• Controller</li> <li>• authService</li> </ul>
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<b>Class Name:</b> UserProfile	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders the profile page for the application</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• Controller</li> <li>• DefaultPage</li> <li>• UserPage</li> </ul>

<b>Class Name:</b> NavBar	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders the navigation bar for the application</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• authService</li> </ul>

<b>Class Name:</b> DefaultPage	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders universal UI elements for the application</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• NavBar</li> </ul>

<b>Class Name:</b> Browse	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders uploaded videos for the application</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• VideoTagSection</li> <li>• VideoPreview</li> </ul>

	<ul style="list-style-type: none"> <li>• DefaultPage</li> <li>• controller</li> </ul>
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<b>Class Name:</b> authService	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Handles the user login, signout, and register after calling the backend</li> </ul>	<b>Collaborators</b>

<b>Class Name:</b> controller	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Sends HTTP requests to the backend and processes the response and errors</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>•</li> </ul>

<b>Class Name:</b> Groups	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Displays the group name and bio in a small area</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>•</li> </ul>

<b>Class Name:</b> Group	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Adds and removes members of the group</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• controller</li> </ul>

<b>Class Name:</b> GroupsList	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	

<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Displays other groups in a list</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li></li> </ul>
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<b>Class Name:</b> GroupProfile	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Display's the group's profile</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>Group</li> <li>GroupMemberList</li> <li>React Router</li> </ul>

<b>Class Name:</b> GroupProfileCreate	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Sends HTTP requests to the backend and processes the response and errors</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>Group</li> <li>GroupMemberList</li> <li>controller</li> <li>GroupsList</li> <li>controller</li> </ul>

<b>Class Name:</b> GroupProfileEdit	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Renders the page to edit a group</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>Controller</li> <li>DefaultPage</li> </ul>

<b>Class Name:</b> GroupMember	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Shows a member's name and role in a group</li> </ul>	<b>Collaborators</b>

<b>Class Name:</b> GroupMemberList	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Shows a the list of a group's members</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>GroupMember</li> </ul>

<b>Class Name:</b> SingleVideoAdd	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Renders the page to add a video</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>Controller</li> <li>DefaultPage</li> </ul>

<b>Class Name:</b> SingleVideoPage	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Renders the page showing all videos</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>VideoTagSection</li> <li>Controller</li> <li>authService</li> <li>DefaultPage</li> </ul>

<b>Class Name:</b> VideoTagSection	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>Renders video tags</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>controller</li> </ul>

<b>Class Name:</b> VideoPreview	
<b>Parent Class (if any):</b>	

<b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders a single video preview</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• VideoTagSection</li> </ul>

<b>Class Name:</b> SearchUserProfiles	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders the page to where you can search users</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• controller</li> </ul>

<b>Class Name:</b> UserPage	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders the user profile module</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>•</li> </ul>

<b>Class Name:</b> UserProfileEdit	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders edit user profile page</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• Controller</li> <li>• DefaultPage</li> </ul>

<b>Class Name:</b> UserProfileItem	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Renders a single user profile</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>•</li> </ul>



<b>Class Name:</b> UserProfileList	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>• Renders a list of user profiles</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>• UserProfileItem</li></ul>



## Backend CRC Cards

<b>Class Name:</b> Server	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>• Establishes connection with mongoDB database</li><li>• Set up and store login session</li><li>• Send session cookies to front end</li><li>• Encrypt private user information</li><li>• Login and register user</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>• UserSchema</li><li>• ProfileSchema</li><li>• Group</li><li>• Video</li><li>• Profile</li></ul>

<b>Class Name:</b> Group	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>• Create group</li><li>• Edit information for group</li><li>• Retrieve group information from database</li><li>• Add and remove members from groups</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>• GroupSchema</li><li>• UserSchema</li></ul>

<b>Class Name:</b> Video	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"><li>• Add video information in database</li><li>• Retrieve video information using queries</li></ul>	<b>Collaborators</b> <ul style="list-style-type: none"><li>• VideoSchema</li></ul>

<b>Class Name:</b> Profile	
<b>Parent Class (if any):</b>	

<b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Save profile information for users</li> <li>• Retrieve profile information from database</li> <li>• Edit profile information from database</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• ProfileSchema</li> </ul>

<b>Class Name:</b> Search	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Search groups</li> <li>• Search user profiles</li> </ul>	<b>Collaborators</b> <ul style="list-style-type: none"> <li>• ProfileSchema</li> <li>• GroupSchema</li> </ul>

## Backend

<b>Class Name:</b> UserSchema	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Defines which collection to save group information</li> <li>• Defines how queries are retrieved from the database for groups</li> <li>• Defines how group data should be structured in database</li> </ul>	<b>Collaborators</b>

<b>Class Name:</b> VideoSchema	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Defines where to save video information</li> <li>• Defines how queries are retrieved</li> </ul>	<b>Collaborators</b>

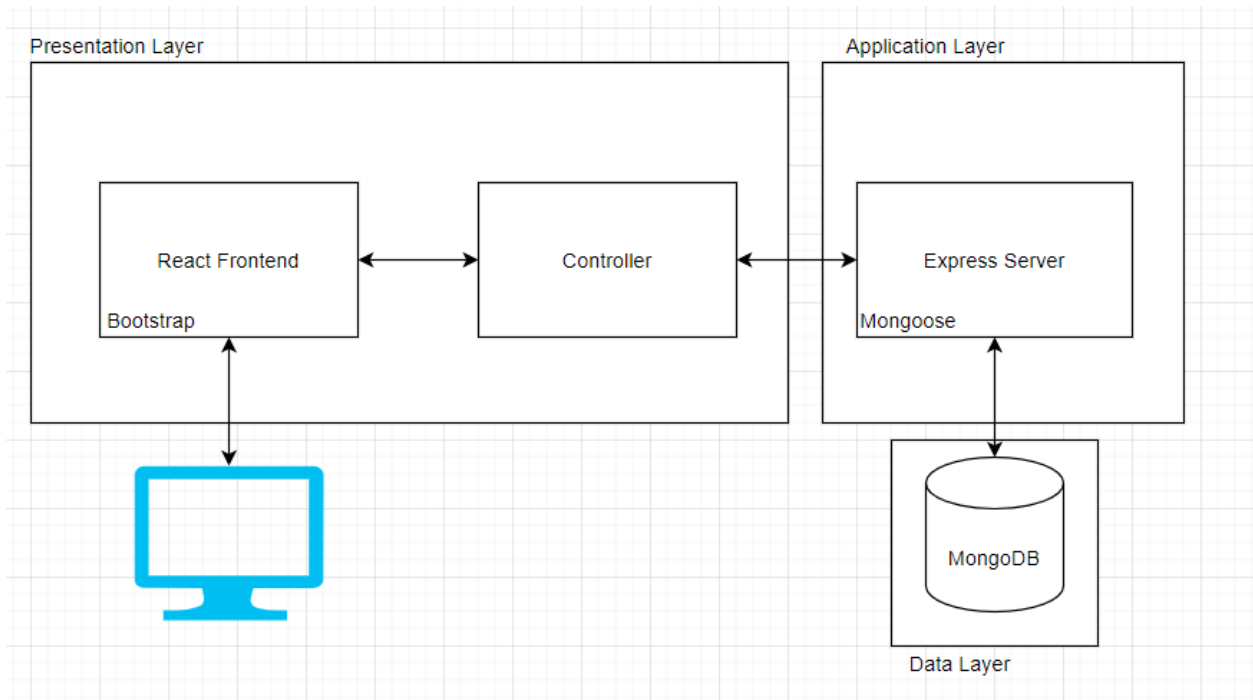
from the database for videos <ul style="list-style-type: none"> <li>• Defines how video data should be structured in database</li> </ul>	
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<b>Class Name:</b> GroupSchema	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Defines which collection to save group information</li> <li>• Defines how queries are retrieved from the database for groups</li> <li>• Defines how group data should be structured in database</li> </ul>	<b>Collaborators</b>

<b>Class Name:</b> ProfileSchema	
<b>Parent Class (if any):</b> <b>Subclasses (if any):</b>	
<b>Responsibilities</b> <ul style="list-style-type: none"> <li>• Defines which collection to save entrepreneur information</li> <li>• Defines what queries from entrepreneur database should contain</li> <li>• Defines how entrepreneur data should be saved in database</li> </ul>	<b>Collaborators</b>

## System Architecture

This application will be using the 3-tiered architecture.



**React Frontend:** The presentation layer. This will contain the user interface for the application

**Controller:** Contains all the API requests to retrieve data from the application layer for the frontend to call.

**Express Server:** Handles the logic of the API requests and returns a response or error to the frontend. Connected to MongoDB using Mongoose.

**MongoDB:** The data layer. Where all information is stored (User, Profiles, Groups, Images)