



Ampact

Sprint 3 System Design Document

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Frontend CRC Cards

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

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

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

Class Name: Registration	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders the registration page for the application 	Collaborators <ul style="list-style-type: none"> • Controller • authService

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

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

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

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

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

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

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

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

Class Name: GroupsList	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> Displays other groups in a list 	Collaborators <ul style="list-style-type: none">

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

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

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

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

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

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

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

Class Name: CalendarPage	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders the page showing calendar events 	Collaborators <ul style="list-style-type: none"> • Controller • authService • DefaultPage

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

Class Name: VideoPreview	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a single video preview 	Collaborators <ul style="list-style-type: none"> • VideoTagSection

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

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

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

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

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

Class Name: PostFeed	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a post feed 	Collaborators <ul style="list-style-type: none"> • Post • DefaultPage

Class Name: PostFeedAnnouncements	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a post feed for announcements 	Collaborators <ul style="list-style-type: none"> • Post • DefaultPage

Class Name: Comment	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a single comment • Allows users to view replies to the comment 	Collaborators <ul style="list-style-type: none"> • Controller • ReplySection

Class Name: CommentSection	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a list of comments 	Collaborators <ul style="list-style-type: none"> • Comment

Class Name: Reply	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a single reply 	Collaborators <ul style="list-style-type: none"> • Controller

Class Name: ReplySection	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a list of replies 	Collaborators <ul style="list-style-type: none"> • Reply

Class Name: Post	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Renders a single post • Allows users to view comments on a post 	Collaborators <ul style="list-style-type: none"> • Controller • CommentSection

Backend CRC Cards

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

Class Name: Authentication	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none">• Restricts requests to authorized users	Collaborators <ul style="list-style-type: none">• GroupSchema

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

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

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

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

Class Name: Post	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Make posts • Delete posts • View post comments 	Collaborators <ul style="list-style-type: none"> • PostSchema • CommentSchema

Class Name: Comment	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Post comments • Delete comments • View comment replies 	Collaborators <ul style="list-style-type: none"> • PostSchema • CommentSchema

Class Name: Event	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Create events • View events 	Collaborators <ul style="list-style-type: none"> • EventSchema

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

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

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

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

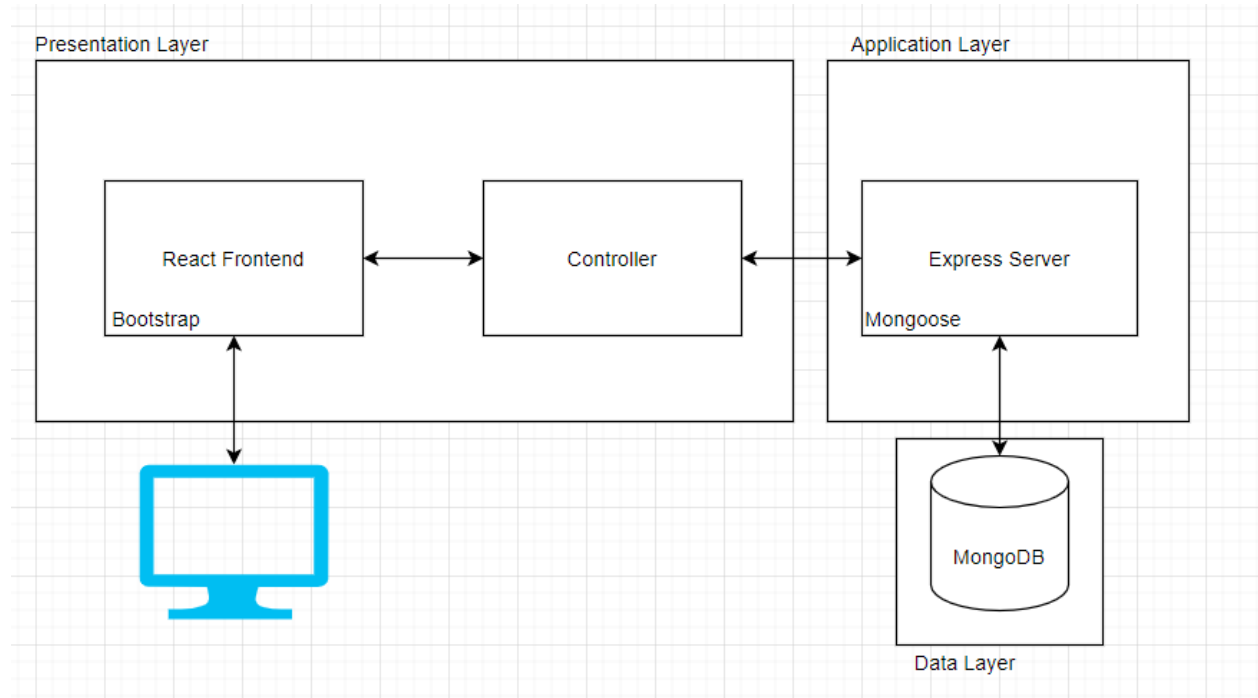
Class Name: EventSchema	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Defines which collection to save calendar event information • Defines how queries are retrieved from the database for events • Defines how calendar event data should be saved in database 	Collaborators

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

Class Name: CommentSchema	
Parent Class (if any): Subclasses (if any):	
Responsibilities <ul style="list-style-type: none"> • Defines which collection to save comment information • Defines how comments are retrieved from the database for posts • Defines how comment data should be structured in database 	Collaborators

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, Videos, Events, Posts, Comments)