

System Design Document

JuicyBoys

Gordon Xiong

Ammar Tariq

Zhiqi Chen

Vignesh Nanthakumar

Keshavaa Shaiskandan

Table of Contents

Backend CRC Cards (Models)	Page 3
Backend CRC Cards (Routes)	Page 5
Frontend CRC Cards	Page 8
Software Architecture Diagram	Page 11

Backend CRC Cards (Models)

Class name: user	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Schema for user object	Collaborators: <ul style="list-style-type: none">• None

Class name: student	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Schema for student object	Collaborators: <ul style="list-style-type: none">• None

Class name: teacher	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Schema for teacher object	Collaborators: <ul style="list-style-type: none">• None

Class name: entrepreneur	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Schema for entrepreneur object	Collaborators: <ul style="list-style-type: none">• None

Class name: course	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Schema for course object	Collaborators: <ul style="list-style-type: none">• None

Class name: company	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Schema for company object 	Collaborators: <ul style="list-style-type: none"> • None

Class name: assignment	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Schema for assignment object 	Collaborators: <ul style="list-style-type: none"> • None

Class name: comment	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Schema for comment object 	Collaborators: <ul style="list-style-type: none"> • None

Class name: post	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Schema for post object 	Collaborators: <ul style="list-style-type: none"> • None

Class name: submission	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Schema for submission object 	Collaborators: <ul style="list-style-type: none"> • None

Backend CRC Cards (Routes)

Class name: users	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Endpoint for registering user• Endpoint for user login	Collaborators: <ul style="list-style-type: none">• user• student• teacher• entrepreneur

Class name: students	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Get student profile• Create student profile	Collaborators: <ul style="list-style-type: none">• student• course• auth

Class name: teachers	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Get teacher profile• Create teacher profile	Collaborators: <ul style="list-style-type: none">• teacher• course• auth

Class name: entrepreneurs	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Get entrepreneur profile• Create entrepreneur profile	Collaborators: <ul style="list-style-type: none">• entrepreneur• company• auth

Class name: courses	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Get all courses with pagination • Get a course by courseId • Create a course • Create an assignment • Submit an assignment • Enroll a student in a course 	Collaborators: <ul style="list-style-type: none"> • course • student • assignment • submission • auth

Class name: posts	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Create a new post • Update a post's message • Get posts by course id for a course • Get posts by user id for a user • Delete a post • Create a new comment • Update a comment message • Get comments by post id for a post • Delete a comment • Add a like to a post • Removed a like from a post • Get likes by postID 	Collaborators: <ul style="list-style-type: none"> • post • comment • auth

Class name: auth	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Implement user authentication 	Collaborators: <ul style="list-style-type: none"> • None

Class name: companies	
Parent Class (if any): <i>None</i>	
Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Get all companies with pagination • Get a company by companyID • Create a company • Assign a company with an entrepreneur • Follow company • Unfollow company • Add document to company 	Collaborators: <ul style="list-style-type: none"> • company • entrepreneur • auth

Frontend CRC Cards

Class name: home	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Display home page with courses and tool bar	Collaborators: <ul style="list-style-type: none">• courses

Class name: login	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Display user login page	Collaborators: <ul style="list-style-type: none">• users

Class name: profile	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Display user profile page	Collaborators: <ul style="list-style-type: none">• students• teachers• entrepreneurs

Class name: signup	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none">• Display user registration page	Collaborators: <ul style="list-style-type: none">• users

Class name: courseHome	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Display course page for a given course 	Collaborators: <ul style="list-style-type: none"> • courses

Class name: assignmentHome	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Display assignment page for a given course 	Collaborators: <ul style="list-style-type: none"> • courses • assignments

Class name: createAssignment	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Display assignment creation page for a given course for teachers 	Collaborators: <ul style="list-style-type: none"> • courses • assignments • teachers

Class name: companyHome	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Display company page for a given company 	Collaborators: <ul style="list-style-type: none"> • companies

Class name: createCompany	
Parent Class (if any): <i>None</i> Subclasses (if any): <i>None</i>	
Responsibilities: <ul style="list-style-type: none"> • Display company creation page for a given company for entrepreneurs 	Collaborators: <ul style="list-style-type: none"> • Companies • entrepreneurs

