



 VIRGINIA TECH™

Winder - Make Friends, Get Fit

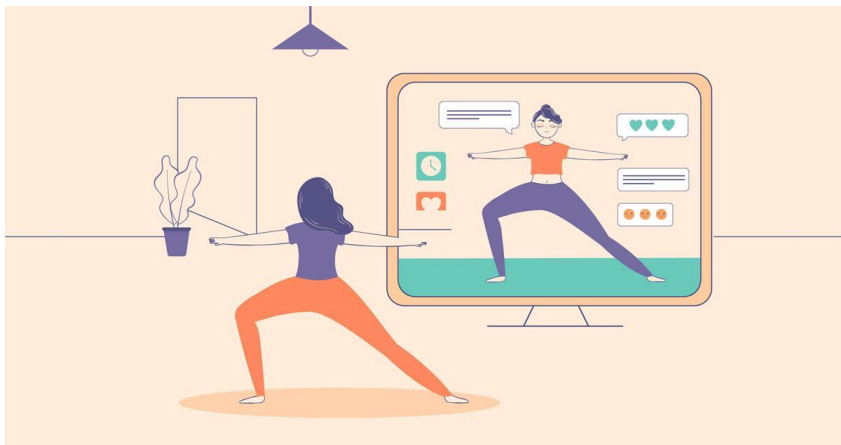
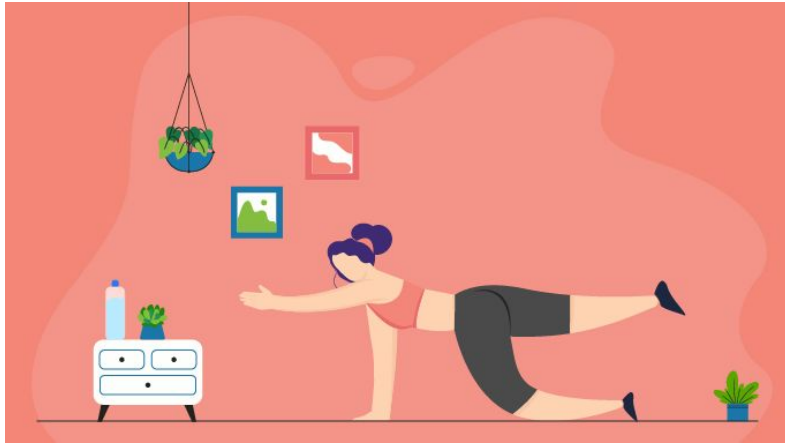
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Introduction and Goals



- Application to connect users with similar fitness goals
- Full-Stack application with user account support
- Goals
 - Allow users to connect with others for workout purpose
 - Find new workout buddy and make new friends
 - Join exercise group and schedule sport events
 - An effective tool for people to find a match to do physical activities

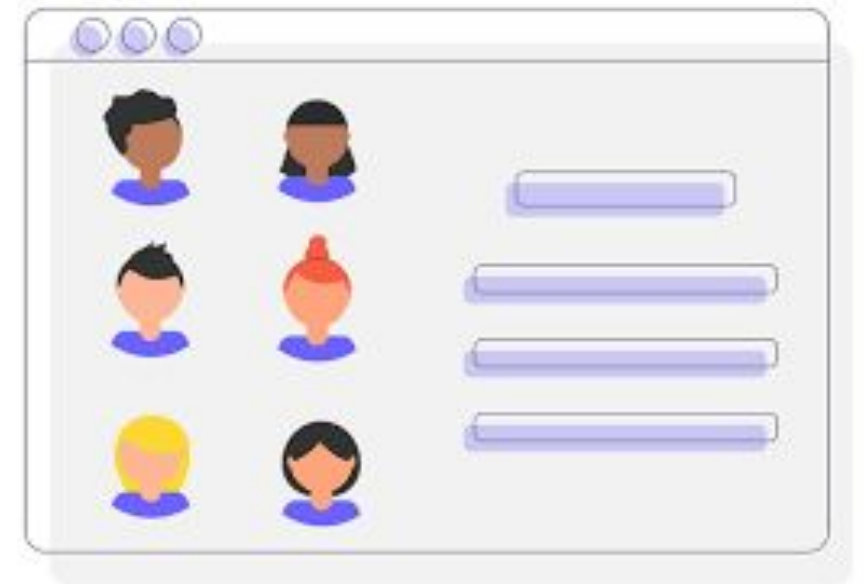
Target Users



- People who want to make friends with those who share the same workout preferences
- People who want to find a workout mate
- People who want to organize/join workout events

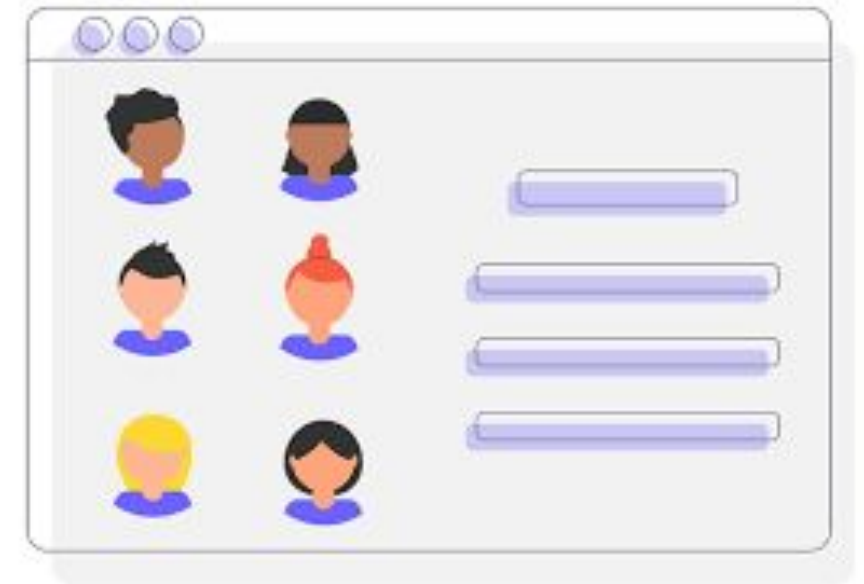
Main Feature and Function - General Function

- Basic functions for users:
 - New guests can register for new accounts
 - User can log in / log out
 - User can change their username and password / edit profile
 - User can edit the sports he like and his experience of the sport



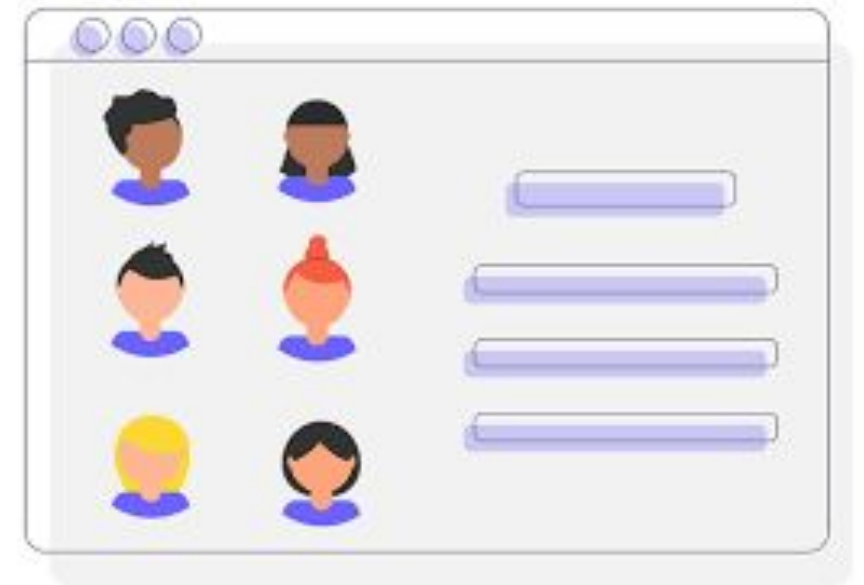
Main Feature and Function - Mate section

- Finding work out mate:
 - User can use certain keywords to search for other users he may be interested in.
 - User can 'Like' others, add them to the 'You Like' list and appear in others' 'Likeyou' list. In 'You Like', he can choose to dislike.
 - User can view who like him and choose to become mates with them In 'You Like' list.
 - User can view all his mates and delete his mates



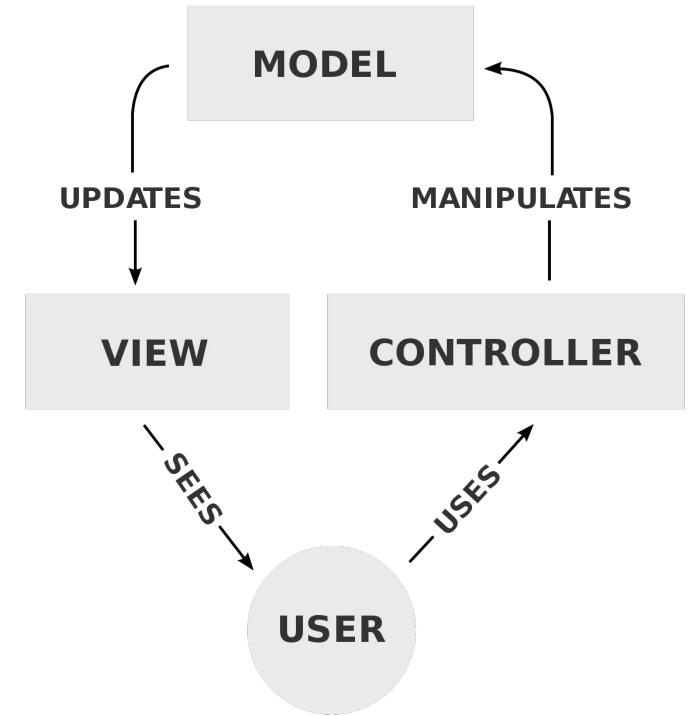
Main Feature and Function - Event section

- Organizing work out events:
 - User can use certain keywords to search for events he may be interested in and choose to join.
 - User can create new events.
 - User can view all events he created and edit or delete them.
 - User can view all events he joined and choose to quit them (if he's not the creator).



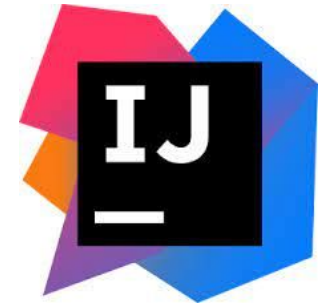
System Build

- System structure
 - MVC pattern
 - Backend-Frontend separation
 - Enhance efficiency of development
 - Communicate by axios
 - Separate development to two teams



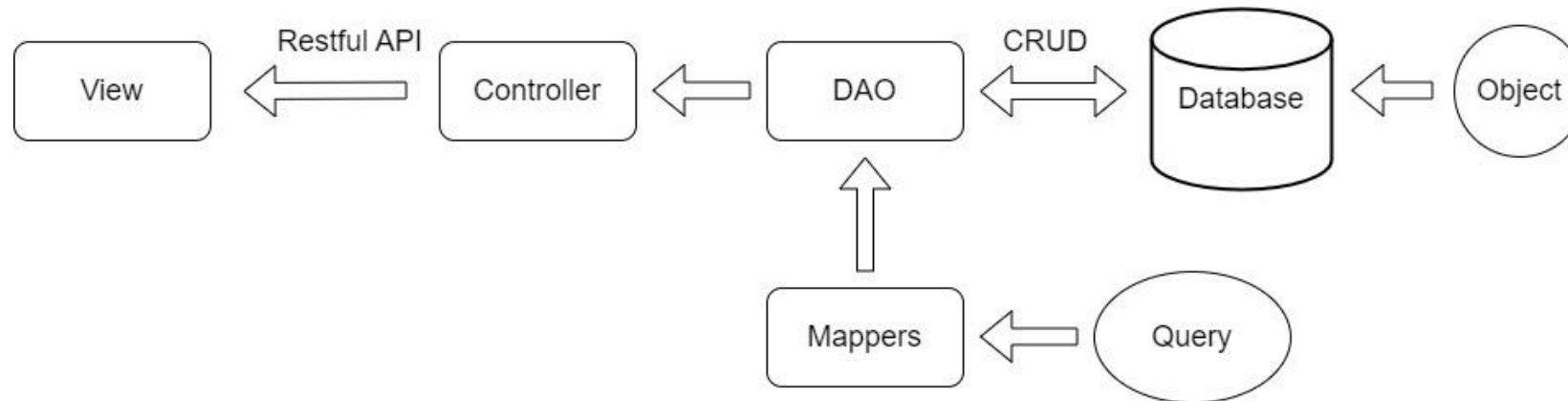
System Build - Backend

- Backend Development:
 - Java as primary language
 - SQL as query language
 - Spring as backend framework
 - IntelliJ Idea as IDE
 - AWS RDS for MySQL as database



System Build - Backend

- Database schema design
 - User Relation
 - User
 - Experience
 - Sport
 - Event
- Backend Implementation



System Build - Frontend

- System Structure:
 - A Vue.js app running on Vite
 - A single-page application (Vue)
 - Client-side router (Vue)
 - Compiling code on-demand (Vite)
 - Making hot module replacement fast (Vite)

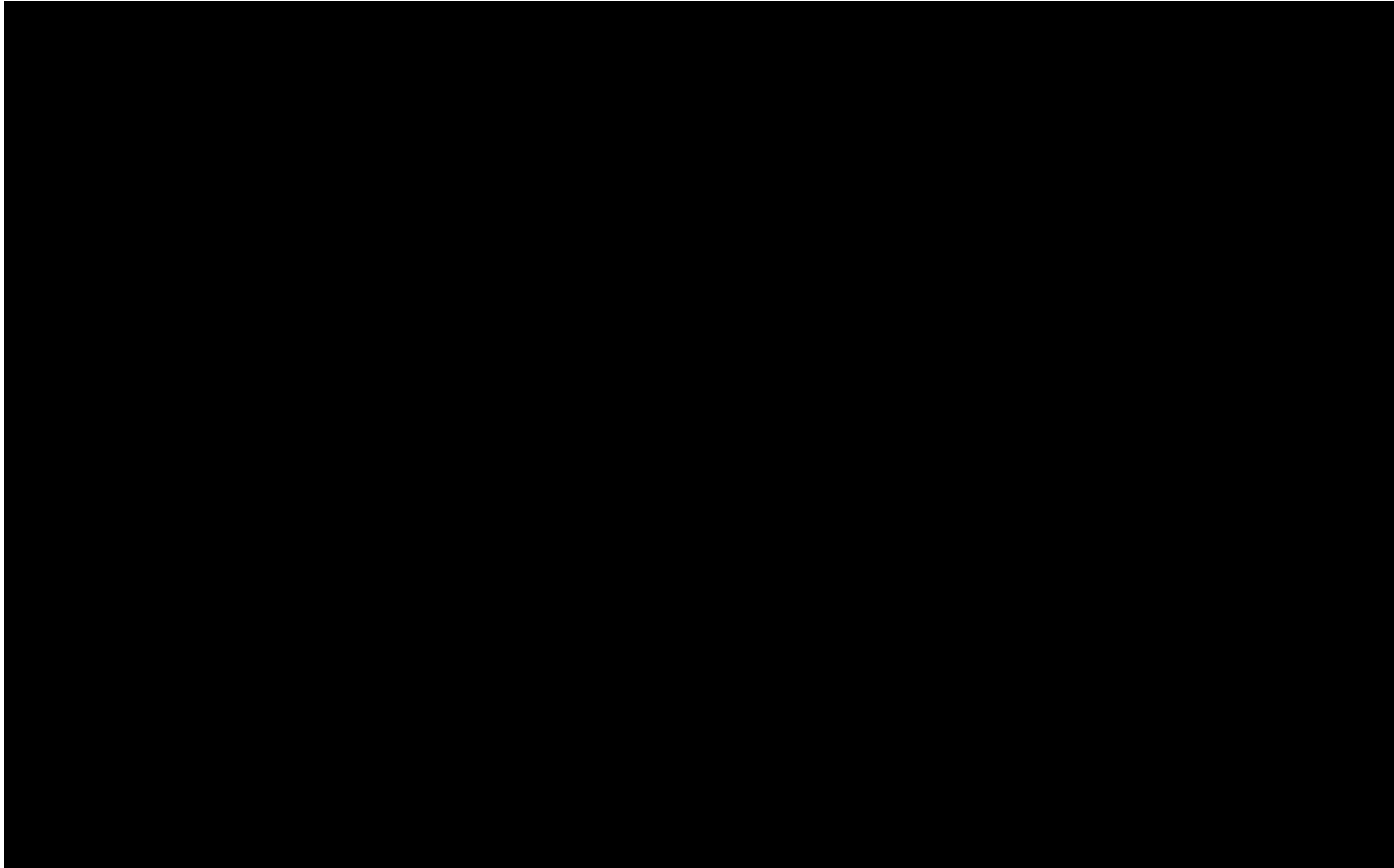


System Build - Frontend

- Front Development:
 - Primary languages
 - HTML, CSS, and Javascript
 - Reusable component-based Structure
 - Dynamic pages
 - Vue Reactivity
 - Variable state change tracking
 - GUI Icon and toolkit
 - Fontawesome



Deployment + Demo



Reflection and Retrospective

- ┌ ● Frequent meetings for collaboration was productive
 - Twice weekly meetings
 - Zoom for collaboration
 - Allowed for good pace of work between meetings
- Version Control on project was Advantageous
 - Allowed for development on multiple parts
- Partner Coding beneficial for development └

Challenges

- Difficulty interfacing backend with frontend
 - Different web structures, difficult to combine
- Git collaboration is still a challenge
 - Issues with untracked files
 - Issues with branch merges
- AWS RDS was hacked once and Wenjun had improved the database security

Future Improvements

- Provide messaging functions so the users could message their partners in the application.
- Provide a block list for users to block some of the offensive users
- Provide more activities options for users
- Recommend users and events nearby
- Improve the UI design to enhance user experience
- Mobile version of application

Thank you!
Q & A