





Fitness Tracker

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Introduction

Problem

- Manual recording of exercises is tedious and overcomplicated
- Lack of awareness of daily activity levels and overall health

Solution

- A Web Application that allows users to easily track the exercises they do and record their fitness journey

Fitness Tracker Application

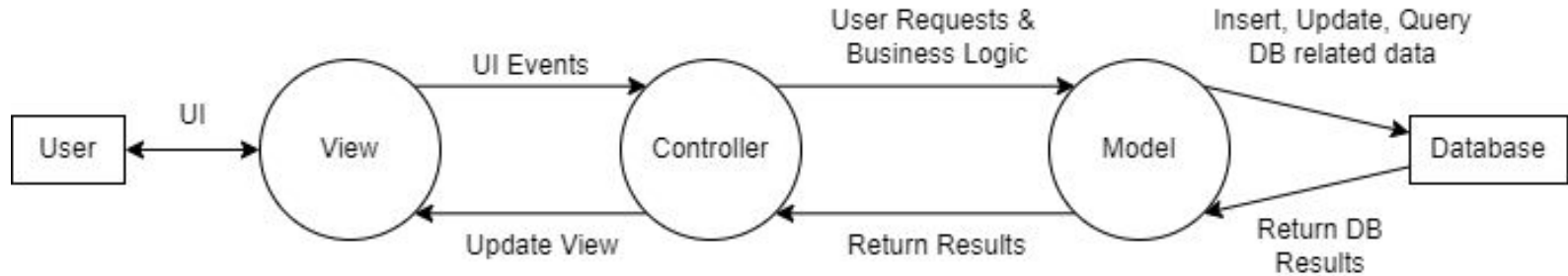
- A web application for logging a user's fitness journey
- Created using Node.js, Express.js, and MySQL
- Node.js is used for server-side operations
- Express.js is used to handle request/response of MySQL statements
- MySQL database management system is used to store and retrieve user data

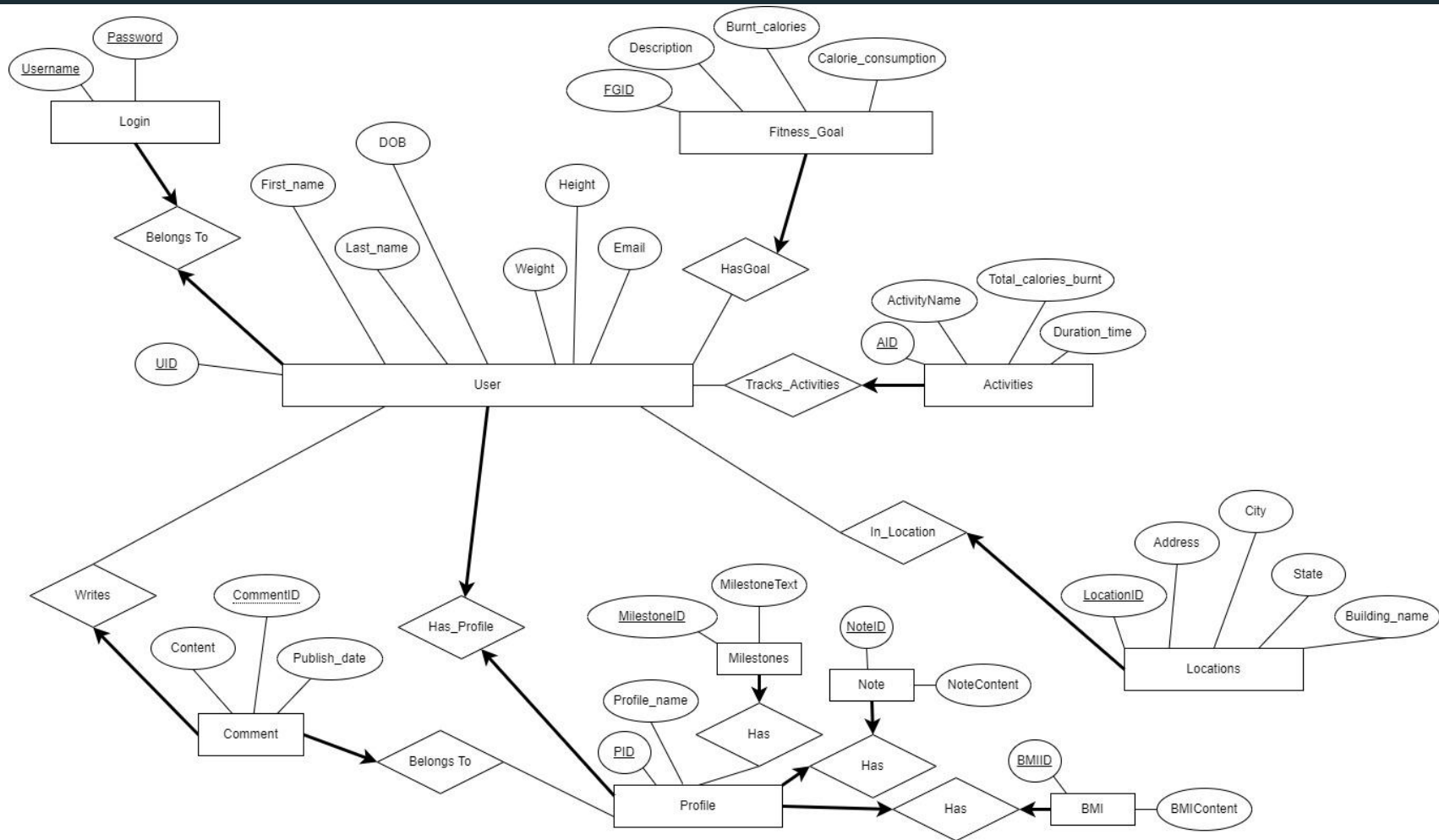
Functionality

- Users can create and track their Activities
- Users can create and track Locations they would use
- Users can create and manage their Fitness Goals
- Users can record milestone achievements of their fitness journey on their Profile
- Users can add comments on other users' profiles
- Users can add an important note and their BMI as a reminder on their personal profile

Architecture

Model-View-Controller (MVC) Diagram





Major Design Decisions

- Original Application designed to be implemented using JavaFX
- Switched to using Node.js & Express.js due to web application requirement
- Some Entities and Relationships were removed due to time constraints and improper design
- Had to decompose some tables due to dependencies not following BCNF



Demo

Challenges

- Sudden change in Project Design forcing us to restart the project
- Limited Time
- Inexperience with Node.js & Express.js
- Needing to decompose tables and update APIs to follow BCNF

Future Applications & Improvements

- Improving the User Interface for an enhanced User Experience
- Creating prebuilt exercise plans for users to be able to follow
- Forming a connection between activity and locations, so that User can track what locations activities were done in
- Allowing users to track changes in their BMI, Height, and Weight
- Encryption of User data to follow modern security practices
- Instead of loading everything for activities, locations, goals, and view profiles, we load the data in segments and allow the user to click a button if they want to see more data



Thank You