SECTION 1: STUDENT DETAILS
Provide a front sheet to the proposal to include the following:
Full Name (Surname, Forename(s)): Aljan K.C.
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Full name of your Supervisor and Reader (if known): Bishal Dali
Date of submission: December 12
Contents Page:11

SECTION 2: STATEMENT OF PROJECT DETAILS
Provide a statement of the project details only.
Project Title: Gym Freak
Academic Question:
How can a comprehensive web application foster fitness engagement by integrating gym discovery, social interaction, and personalized diet planning?
Aims
- *To develop a user-friendly web application that supports gym enthusiasts in their fitness journeys.*
- *To integrate features such as workout posting, social interaction, trainer consultancy, and personalized diet plans into one platform.*
- *To create an interactive, community-driven fitness ecosystem.*
- *To promote social interaction through post likes, comments, and sharing.*

Objectives
1. Enable user to post, share their daily workout routine between gym partners and other user of the gym.
2. Offer access to curated diet plans and a customizable diet planning tool.
3. Allowing users to consult and chat with trainer in any working time of the trainer.
4. Design a responsive interface for user and create admin dashboard to manage users and trainers.

Artefact (Proposed)

A feature-rich web application named "Gym-freak" designed exclusively for a single gym's ecosystem, offering workout tracking, social engagement, diet plan suggestion and creating own plans, and trainer interaction functionalities.

SECTION 3: PROJECT PROPOSAL

Introduction

The project "Gym Freak" is a project focusing on the gym rats who are dedicated and focused on their fitness journey to help them grow as a community by helping each other to grow together. This web application is focused on delivering tailored services for a single gym, enabling user to keep record of workout plan, interact socially and connect directly with gym trainers. This ensures a more focused and engaging experience. Also allows user to keep track of their workout before they forget and share it with gym partners.

In today's generation gym-goers often face challenges in tracking their workouts, staying motivated and accessing personalized guidance. Gym Freak addresses these challenges by providing an all-encompassing platform tailored to a single gym, fostering a close-knit fitness community. It focuses on delivering value to members of a gym making sure of more personalized experience. I planned this project because I myself have been going to gym for quite a while now and I'm trying to solve lots of problems I faced during my begging months of working out and this application will help gym-goers to have better and improvised experience in my gym. Helping every customer of a gym that can use web application to engage with each other pushing each other to grow as a team as a community and to have a safe place for user to be free and post their workout and self-physical progress.

Background

Gym application can be found in lots of numbers out there but many of the fitness application fails to address the specific needs of a single gym community. Other fitness application focuses broadly on fitness tracking or provide basic information about without really having any sort of interaction or offering personalized guidance in some cases. But gym Freak being a single exclusive one gym application it provides tools to foster a sense of community between the user of the gym while helping users to track their fitness journey.

Problem Scenario

Most of the gym-goers face many challenges:

- Absence of systematic record keeping

Most of the gym-goers specially beginners forget their last week record and for better progress gymers shall keep record of how much weight they lifted for particular exercise so that they can check and improve themselves accordingly in coming weeks. This helps to grow better and faster in fitness journey. Moreover, traditional methods of keeping record or generic fitness fails to provide a seamless experience tailored to the specific needs of individual gym members making it difficult to keep a detailed and accurate record of their fitness journey.

There are very few applications that provides this feature and the application that are available are only focused in this particular feature. And Gym Freak allows user to keep record of their workout in very systematic way by keeping record of which exercise how many weights and how many repetition which are stored for easy access and analysis and also posts on the application. Which not only ensures that the users have a clear record of their progress but also allows them to set and refine their fitness goals. Gym Freak rliminates the hassle of fragmented record-keeping methods and encourages users to stay consistent and motivated.

- Limited Interaction Among Gym Members

Most essential part of growing as a gym rat requires to work and grow as a community helping each other to grow and challenge each other. Most of the members workout by themselves by isolating themselves which is good for short term growth being focused to yourself but not for long term. And it may lead to reduced motivation to stick to fitness routine. While some application includes community features, they are often too generic focusing global audience rather than fostering meaningful connections within a specific gym environment.

To avoid it, Gym Freak provides a social feature that encourages interaction and engagement among members of the same gym. User are allowed to post about their workout plan and progress share milestones and interact with each other like a social media application through liking post commenting and sharing. This feature helps to create a sense of belonging and community within the gym, motivating and pushing members to stay committed. By creating such environment of support and mutual engagement, Gym Freak transforms the gym experience from solitary activity into collaborative and inspiring journey.

- Challenges in Accessing Trainer Support

The most common issue faced by most of the gym members is the difficulty in accessing trainers for guidance and support outside of their gym sessions. Gym setups often limit member-trainer interaction to in person consultations, which may not always be convenient or timely. Members seeking advice on proper form personalized routines or general fitness tips are left without immediate solutions leading to frustration and lack of direction in achieving proper fitness goals.

Gym Freak helps to solve the problem by introducing a dedicated chat feature between trainers and members to connect outside the gym for consultancy. With the help of this users can ask questions, seek feedback and receive personalized advice in real-time. Trainer can provide detailed guidance on workouts, dietary plans and other fitness related quires, ensuring that the members feel supported throughout their fitness journey. This feature doesn't only bridge the gap between but also enhances the overall value of the gym experience by providing timely and accessible professional support.

- Lack of Reliable Dietary Guidance

To achieve a goal in fitness journey only working out is not enough in every gym-goers life working out serves only few amounts of help in achieving their goal whereas proper dietary plan helps vastly for long term. However, most of the gym member's struggle to access credible and personalized dietary information. Generic diet plans found online are often unsuitable for all the people. Specially in country like Nepal where rice is an essential diet of every citizen. Moreover, many members lack the knowledge to create a meal plan that aligns to their fitness goals, whether it be weight loss or gain or muscle gain or overall health improvement.

Gym Freak addresses this gao by offering a comprehensive library of popular diet plans as well as tools for creating personalized meal plans. User also can view diet plan of their fellow gym partner from gym and have their own diet as their partner or even their trainer. The application ensures that members have access to reliable and actionable dietary guidance alongside their workout tracking. This approach empowers uses to make informed decisions about their nutrition, enhancing their overall fitness journey and supporting long term success.

Initial Research into Sources of Information

1. (Smith, 2024) **"The Psychology of Fitness Tracking"**

   This research emphasizes the impact of the fitness tracking on user mentally in long term to workout routines. The journal explores the psychological benefits of structed record keeping such as giving a sense of accomplishment enabling goal setting and providing

measurable progress indicators. It also highlights that the importance of accessibility and ease of use in fitness tracking method, showing that the user-friendly platforms encourages consistent engagement. The study suggests that the individuals who track their activities in gym or any other productive activity are more likely to identify their flaws and areas for improvement and stay motivated to achieve their goal.

This journal directly says that the feature brought in Gym Freak which allows users to track their workout in more systematic manner by keeping track of every workout's sets, repetition and engaged weight according to the weight helps user to have more enhanced fitness journey. By implementing this feature users are enabling to monitor their progress and stay motivated. Insights from Smith's study also reinforce the need for clear visual progress indicators and goal setting functionalities within app making it an essential tool for fitness enthusiasts aiming to maintain consistent routines.

2. (Siuda, 2020) **"Communitainment on Instagram: Fitness Content and Community-Driven Communication as a Key to Social Media Influencers' Success"**

In this journal it examines the roles of fitness content in social media platform like Instagram and its impact on community engagement. The research explores how the fitness influencer is creating a entertaining and community driven content by providing a belonging environment among follower using the platform. This research highlights the most significance feature like commenting sharing and liking and how it is a supporting fitness community to build and which also enhances user motivation.

This study is highly related to the feature on Gym Freak as it underscores the importance of the integrating social interaction features within the app by allowing the members to share the post of their workout progress and engages the other member through likes, comment and shares. Gym Freak creates a supportive community environment by this feature which is very essential for user engagement and motivation as it provides a platform for users to connect, share and support each other as a community. (Anon., 2023)This element aligns with the findings of the study ensuring that the Gym Freak effectively leverages social interaction to promote sustained user participation and success in achieving fitness goals.

3. (Anon., 2023)

The research studies the role of personal trainers in enhancing gym members health outcomes and their commitment to exercise routines. This result of the research indicates that the individuals who have regular access to personal trainer outside or inside the gym exhibits higher level of motivation improved exercise and better health related outcomes compared to the individuals who does not get access to trainer. The research underlines the importance of professional guidance in achieving fitness goals and suggests that the absence of accessible personal trainers can hinder individuals progress and overall wellbeing.

The research is related to development of Gym Freak by incorporating features that facilitates easy access to professional trainers, such as in-app messaging, virtual consultations and personalized workout plans, the web application can bridge the gap between gym members and fitness professionals. This feature makes sure that the gym members are getting the more than required guidance and support to stay motivated which automatically leads to improved health outcomes. Aligning with the study findings Gym Freak aims to enhance user engagement and success by providing accessible professional support within the site.

Artefact (Proposed)

Vision of Artefact

The final artefact will be a web application that includes:

- A user-friendly interface for recording daily workouts.
- Features for posting and sharing fitness progress.
- A chat module for direct communication with gym trainers.
- A comprehensive diet library with tools for personalized meal planning.

### Development Tools and Techniques

- **Frontend:** HTML, CSS. JavaScript (React.js).
- **Backend:** Django (Python).
- **Database:** PostgreSQL for robust data management.
- **Methodology:** Agile for iterative development and continuous feedback.

Testing Plan

1. **Unit Testing:** For individual features like workout logging and posting.
2. **Integration Testing:** To ensure smooth interaction between modules like char and posts.
3. **Usability Testing:** To gather feedback from potential users and improve the interface.
4. **Performance Testing:** To ensure the app performs well under varying loads.

Plan/Schedule

	ASSIGNEE	EH	START	DUE	STATUS
Section 1: Planning and Research:		-	27/Nov	03/Dec	
⊘ Initial Planning and Scope De...	Unassigned	-	27/Nov	29/Nov	Started
⊘ Define Project Requirements	Unassigned	-	29/Nov	30/Nov	Not started
⊘ Conduct Initial Research	Unassigned	-	30/Nov	01/Dec	Not started
⊘ Finalize Technology Stack	Unassigned	-	01/Dec	03/Dec	Not started
+ Add task + Add section					
Section 2: Design:		-	04/Dec	23/Dec	
⊘ Design Wireframes and Mock...	Unassigned	-	04/Dec	17/Dec	Not started
⊘ Review and Finalize UI/UX De...	Unassigned	-	17/Dec	23/Dec	Not started
+ Add task + Add section					
Section 3: Backend Development:		-	24/Dec	12/Jan	
⊘ Design Database Schema	Unassigned	-	24/Dec	01/Jan	Not started
⊘ Implement User Authenticati...	Unassigned	-	01/Jan	12/Jan	Not started
⊘ Develop API Endpoints	Unassigned	-	06/Jan	06/Jan	Not started
+ Add task + Add section					
Section 4: Frontend Development:		-	17/Jan	16/Feb	
⊘ Implement User Registration ...	Unassigned	-	17/Jan	26/Jan	Not started
⊘ Implement Workout Tracking...	Unassigned	-	26/Jan	03/Feb	Not started
⊘ Implement Social Feed Page	Unassigned	-	03/Feb	16/Feb	Not started
+ Add task + Add section					
Section 5: Feature Integration:		-	17/Feb	14/Mar	
⊘ Integrate Chat Functionality	Unassigned	-	17/Feb	26/Feb	Not started
⊘ Integrate Workout Posting an...	Unassigned	-	26/Feb	07/Mar	Not started
⊘ Implement Diet Planning Mo...	Unassigned	-	07/Mar	14/Mar	Not started
+ Add task + Add section					
Section 6: Testing and Debugging :		-	16/Mar	04/Apr	
⊘ Conduct Unit Testing	Unassigned	-	16/Mar	19/Mar	Not started
⊘ Conduct Integration Testing	Unassigned	-	19/Mar	21/Mar	Not started
⊘ Conduct System Testing	Unassigned	-	21/Mar	04/Apr	Not started
+ Add task + Add section					
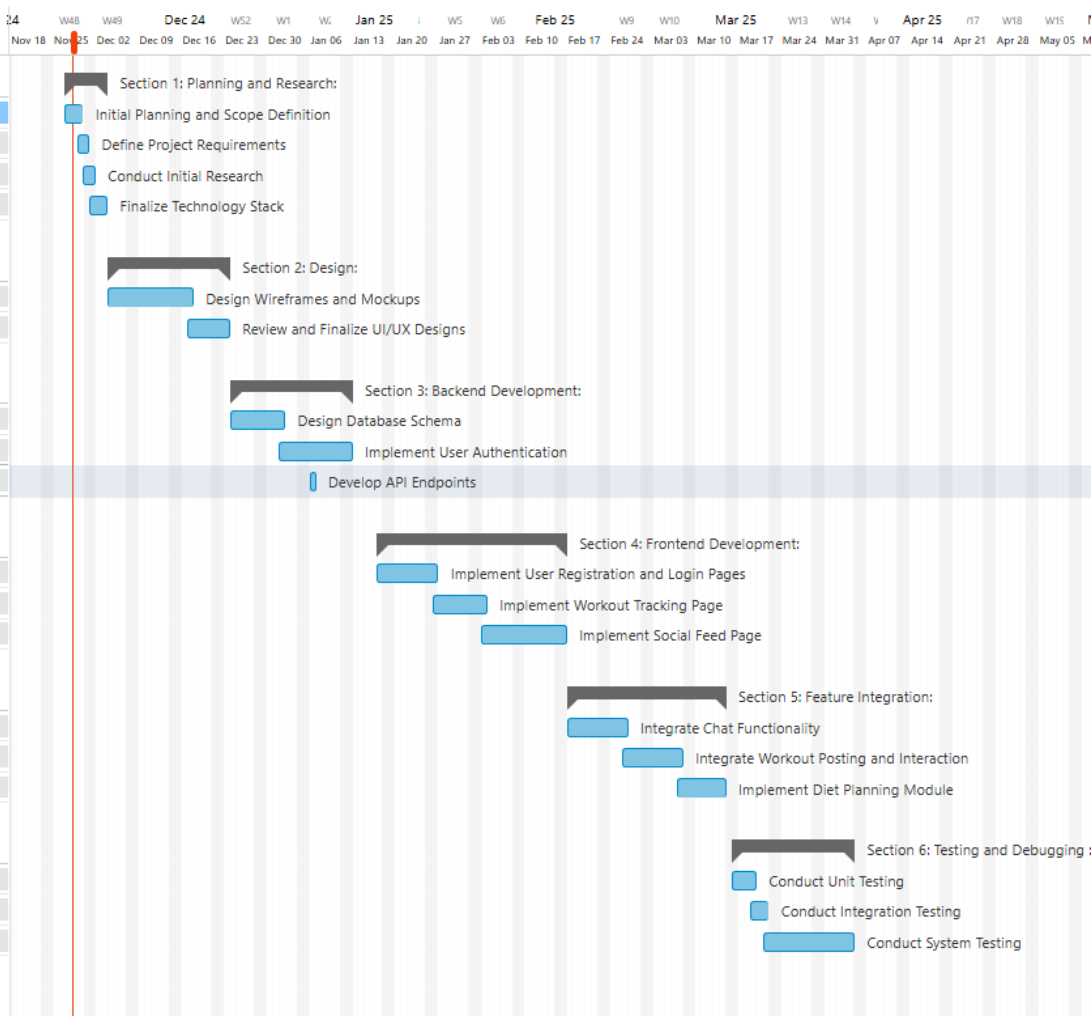
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Available at: https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-021-01138-3?utm

Anon., 2023. *Unlocking Gym Member Potential: Converting Gym-Goers to Training Services.* [Online]
Available at: https://strengthportal.com/blog/unlocking-gym-member-potential-converting-gym-goers-to-training-services/?utm

Siuda, J., 2020. Communitainment on Instagram: Fitness Content and Community-Driven Communication as a Key to Social Media Influencers' Success. *SAGE,* p. 12.

Smith, 2024. *The Psychology of Fitness Tracking.* [Online]
Available at: https://dareewrites.com/the-psychology-of-fitness-tracking-motivation-or-obsession-balancing-data-and-well-being/

Section 4: Additional Information

Risk ID	Risk Statement	Risk Category	Probability	Impact	Risk Score	Response Type	Mitigation Plan
R-1	Poor user adaptaion due to lack of awareness	Operational	2	4	8	Mitigate	Launch a robust marketing in gym targeting the members
R-2	Bugs or glitches in core functionalities (e.g., workout tracking, chat)	Technical	7	8	56	Mitigate	Conduct thorough testing using automated and manual testing tools.
R-3	Misleading or inaccurate diet plans causing user dissatisfaction	Reputational	3	6	18	Mitigate	Collaborate with certified nutritionists to validate diet content.
R-4	Overloading of the server due to unexpected user traffic	Infrastructure	2	5	10	Avoid	Use scalable cloud solutions like AWS or Azure for hosting.
R-5	Unauthorized access to user accounts	Security	3	2	5	Mitigate	Implement multi-factor authentication (MFA) and strong password policies.

R-6	Delays in project timeline due to unforeseen challenges	Project Management	6	5	30	Accept	Break down tasks into smaller milestones and buffer time for potential delays.
R-7	Difficulty in integrating chat functionality	Technical	5	6	30	Mitigate	Use third-party APIs like Twilio or Firebase to simplify chat integration.

Client

Full Name: Bishal Dali (Supervisor)