MINOR PROJECT

Priyanshu Parashar(19100BTCSE05699)
Samaditya Jatar(19100BTCSE05713)
Samarth Bhole(19100BTCSE05714)

Guided by :
Dr.Abhishek Sharma

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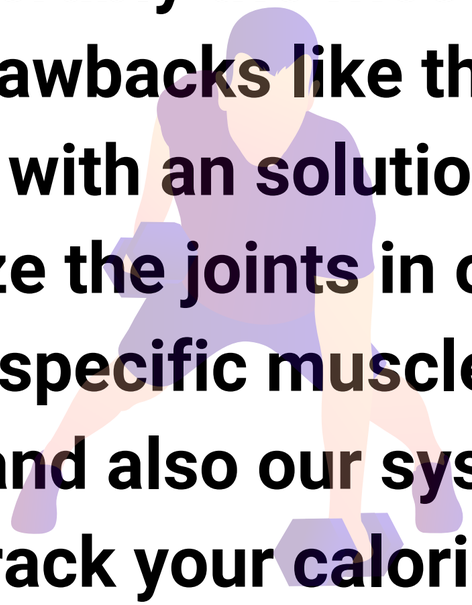
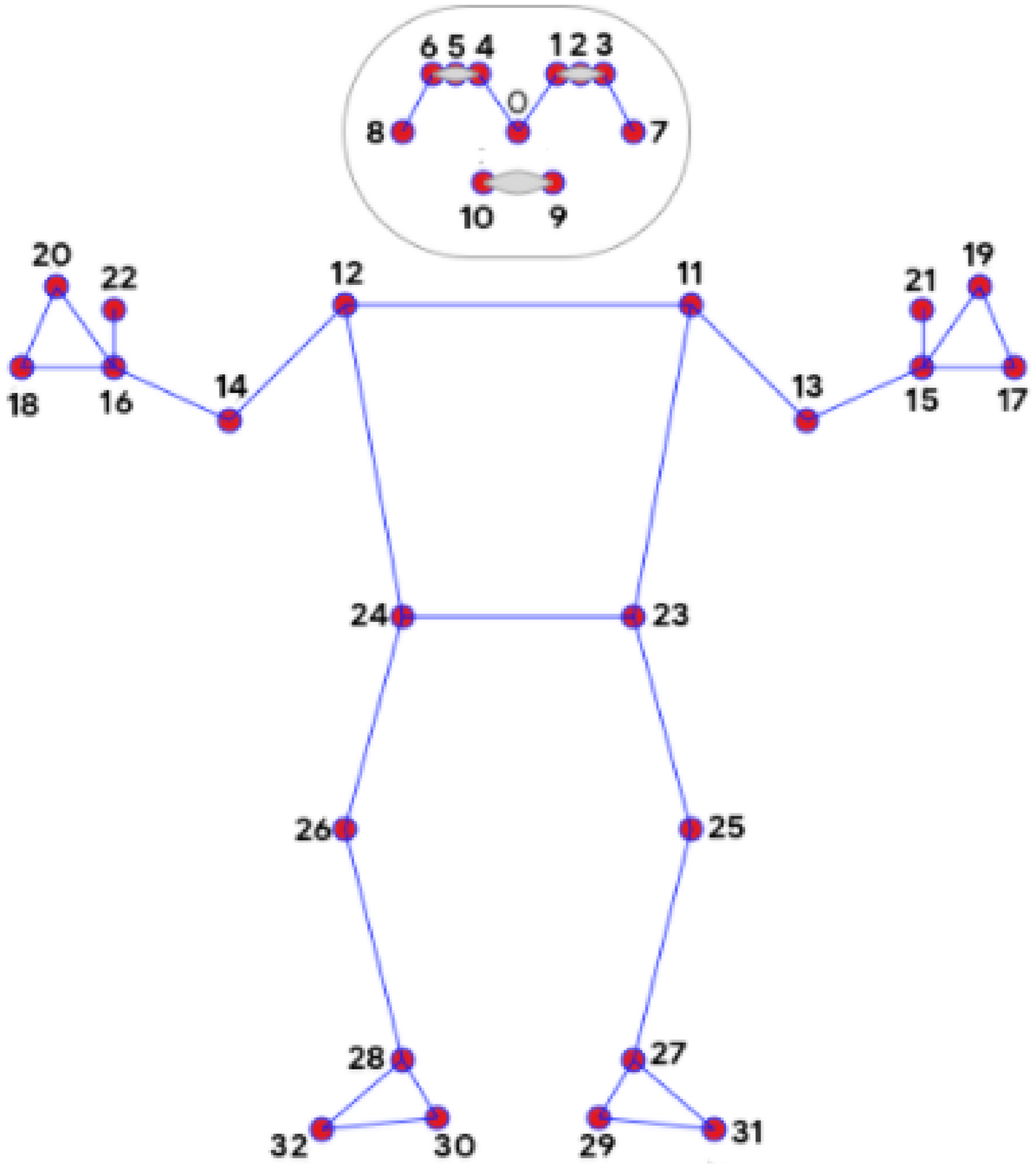
OBJECTIVE

During the covid-19 outbreak and the following lockdown protocols, it took a direct hit on the gyms and fitness of the people. We experienced this problem and could not find any viable solutions for the same except some which were really superfluous so, it engendered an intuitive solution that shall help people who want to continue their fitness journey at their homes with minimal equipment and under supervision from your own virtual fitness coach.

SOLUTION TO THE PROBLEM



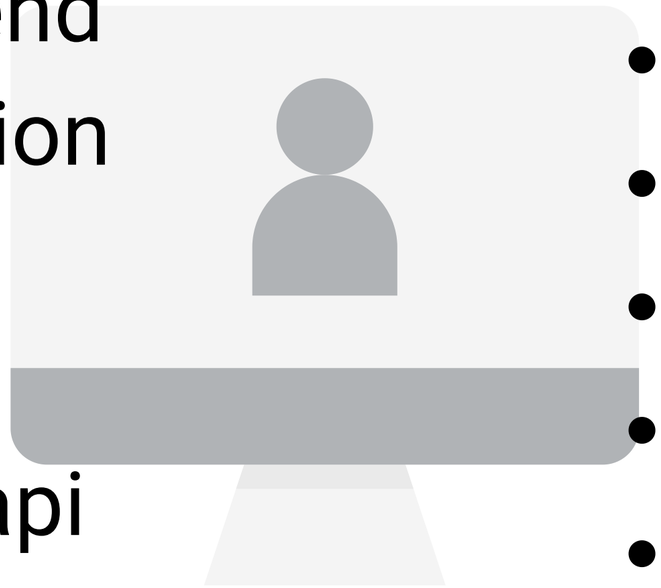
Home gymming was considerably the most favorable solution which is great but it has its own drawbacks like there is no way to track our workout so we came up with an solution which uses a machine learning model to recognize the joints in our body through which we can track the moment of a specific muscle which will eventually help us track our workout and also our system will include other functionality which will track your calorie intake we will use web-scrapping to manage their diet.



0. nose
1. left_eye_inner
2. left_eye
3. left_eye_outer
4. right_eye_inner
5. right_eye
6. right_eye_outer
7. left_ear
8. right_ear
9. mouth_left
10. mouth_right
11. left_shoulder
12. right_shoulder
13. left_elbow
14. right_elbow
15. left_wrist
16. right_wrist
17. left_pinky
18. right_pinky
19. left_index
20. right_index
21. left_thumb
22. right_thumb
23. left_hip
24. right_hip
25. left_knee
26. right_knee
27. left_ankle
28. right_ankle
29. left_heel
30. right_heel
31. left_foot_index
32. right_foot_index

TECHNOLOGIES INCORPORATED

- Django-backend
- Mail automation
- Pandas
- pyplot lib
- Google auth api
- Bootstrap CDN

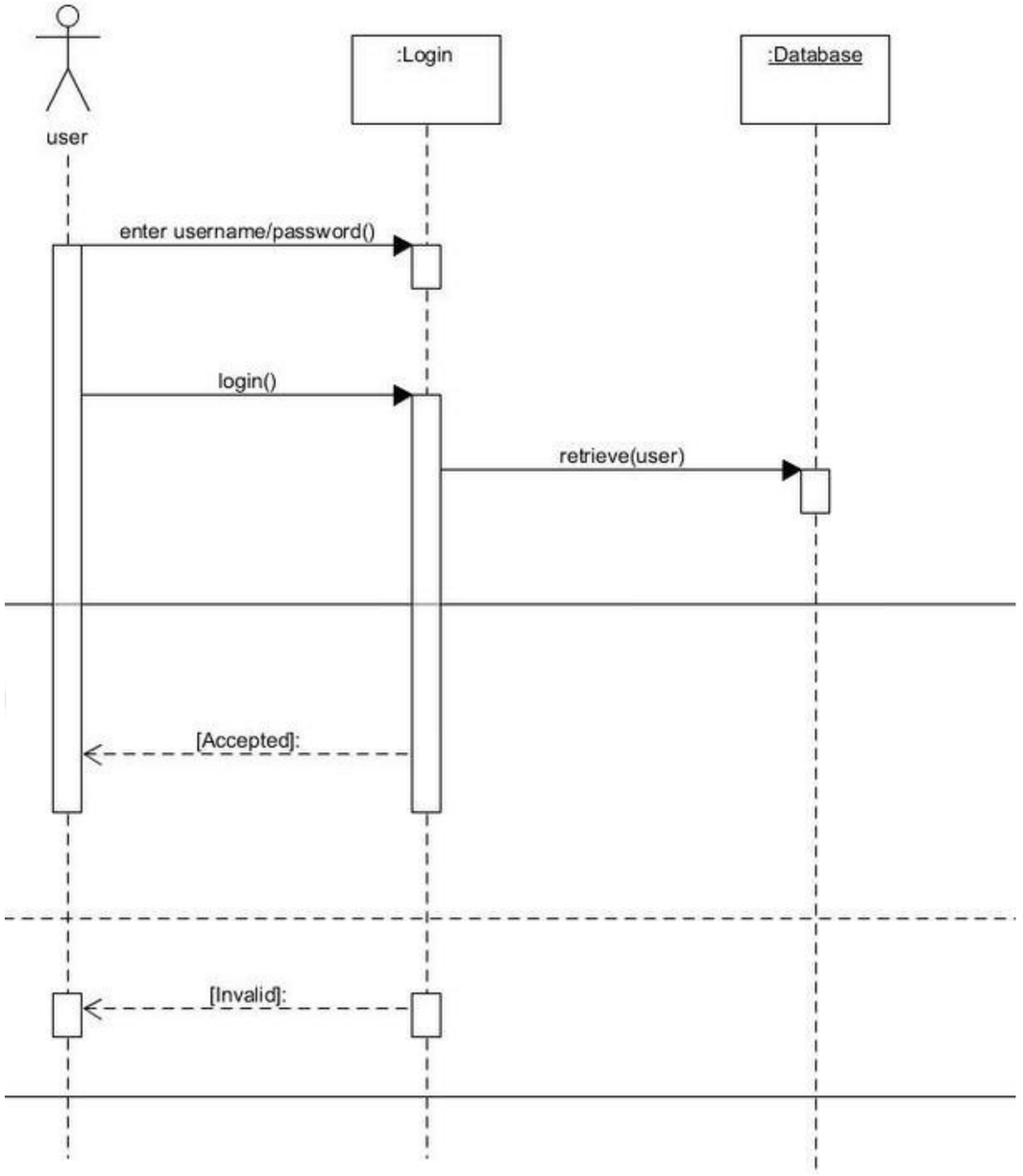


- Scikit-learn
- ML-classifier
- Mediapipe
- OpenCV
- Beautiful Soup
- Numpy

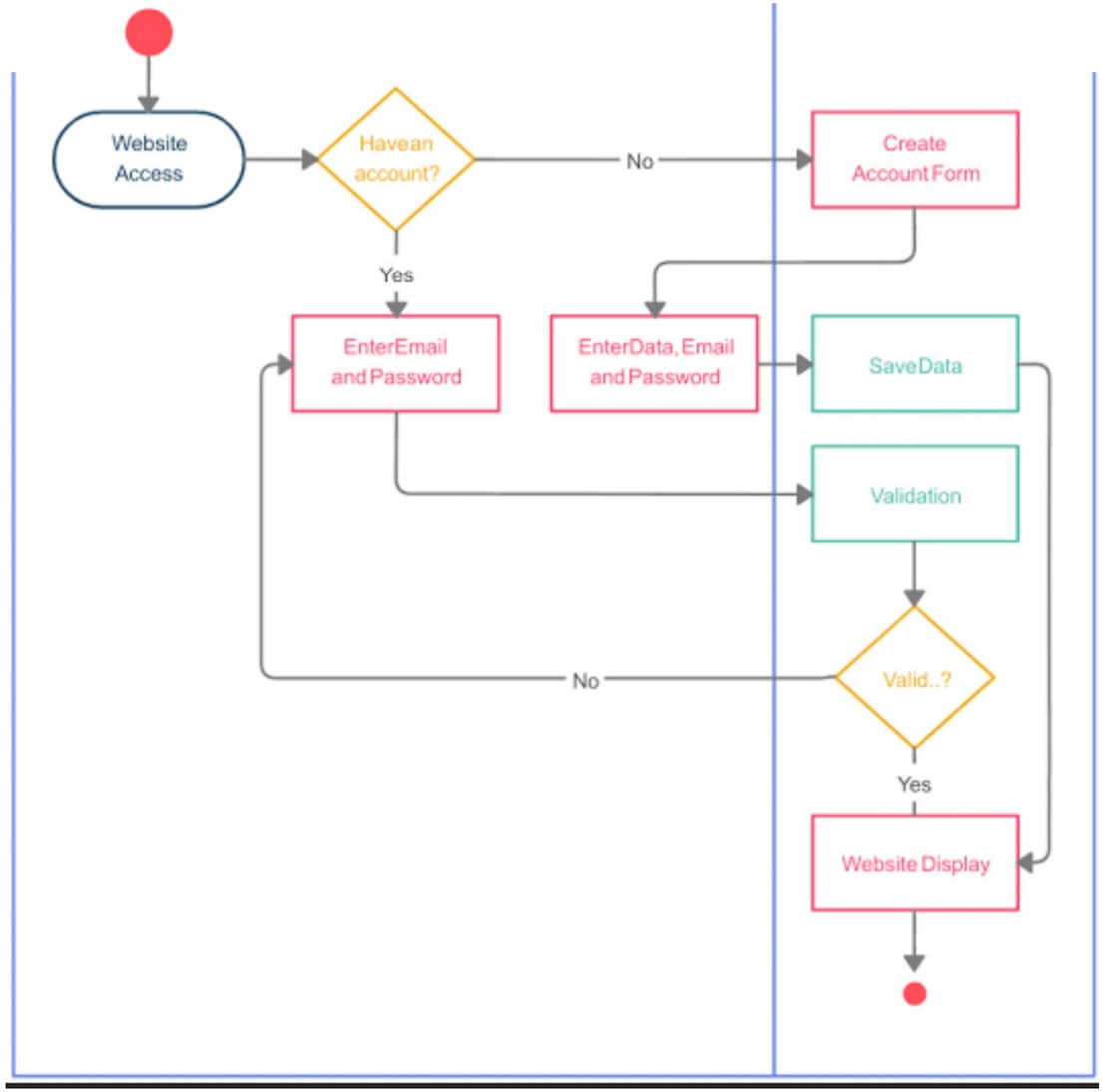
USE CASE DIAGRAM


Fitness Coach
Profile Dashboard
all user details
AI/ML exercise tracker
Daily exercise log
calorie intake logs
login
Fitness coach user
fitness coach admin

SEQUENCE DIAGRAM


user
:Login
:Database
enter username/password()
login()
retrieve(user)
[Accepted]:
[Invalid]:

ACTIVITY DIAGRAM


Website Access
Have an account?
No
Create Account Form
Yes
Enter Email and Password
Enter Data, Email and Password
Save Data
Validation
Valid..?
No
Yes
Website Display