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DIET MATE

1. Android interactive app to input the Values from the user and caculate the bmr value and calculate the calorie value(one day)
2. Store the calorie value in firebase and partition them as Break Fast , Lunch , Dinner (40, 30 ,30)
3. Now we have another app to trigger the picam in raspberry pi(For practical purpose we implement the trigger of web cam in our system)
4. This video stream will detect the food if it matches with the food given in the dataset it captures the image and gets the foreground pic of the image using grabcut algorithm.
5. Now the foreground image(food itme) mass is calculated using the product of volume and density
6. This is done by using the CNN algorithm (regional based convolutional neural networks)
7. After calculating the mass of the image, the calorie of the food is calculated by referring the pre defined calories per gram which is stored in the database.
8. Now the calorie calculated by the user in run time is compared with the calories in step 2 .
9. If it exceeds or preceeds the pre defined calories then the user gets an alert through his UI(app)

CONSTRAINTS

1. the food items should be detected while they are raw material

eg: Curd riceraw material: curd,rice(This gives the approximate value)

1. If we use raw fruits and vegetables then it would be more accurate than the previous one and that’s healthy too
2. The user should eat the food detected by the completely( we recommend eating fruits and vegetables)
3. In case of south indian foods the raw materials play a vital role.
4. The calorie of the food depends on the type of the food

Eg: green apple – 300 calRotten apple – 270 cal

Slightly rotten apple – 280 calKashmir apple – 320 cal