



# Fitness Desktop Application

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# Main Features

- ▶ Personalized Workout Suggestion for each day
- ▶ Personalized Calories and Nutrient Suggestion
- ▶ Calories and Nutrients tracking for each day

# Concepts Utilized

- ▶ Classes and Objects
- ▶ Structs
- ▶ Vectors
- ▶ Enum Classes
- ▶ File Handling

# Workout Suggestion

- ▶ Workout Suggestion is a function of type of Goal user has like (Hypertrophy, Endurance, Sports) & training level of User
- ▶ Number of sets is dependent on User training level
- ▶ Number of reps is based on demands of exercise
- ▶ Each day user is suggested a workout on basis of day in cycle
- ▶ Everytime user views the today's workout, day in cycle increments by 1
- ▶ Everything is algorithm based and nothing is hardcoded

# Algorithm of Workout Suggestion

- ▶ Each exercise in database has three qualities stability demands, cooperating and compound demand and ability to reach failure
- ▶ Each type of Goal prioritizes these any of the order.
- ▶ We could have 12 different type of workout plans using these
- ▶ Function compare exercises and sort chooses exercises using person's goal
- ▶ Function createworkout also chooses set and reps and return final workout by taking day in cycle and user's training level as a parameter.

# Diet Suggestion Part

- ▶ Diet Suggestion is a function of goal of user, height, weight, age ,gender
- ▶ Calories and Macro Nutrients like Protein, Fats, Carbs requirements are personalized for each user using algorithms.

# Diet Tracking Part

- ▶ There is a database of different foods with their caloric, nutrition and units data.
- ▶ User can choose the food it ate amount he ate and that data will be added into Object and then updated into the file.
- ▶ User will be shown data about food consumed today and his daily goal

# Frontend

- ▶ Failed attempts to create frontend using SFML and window.h
- ▶ So we created a simple navigation plan that only uses two buttons like a game
- ▶ Homepage shows nutrition today vs daily nutrition goals.
- ▶ You can see workout for today by just pressing one button.
- ▶ You can also add new food you ate today.



# Updating of Data // File Handling

- ▶ Every time a new object of User is created its file is either updated with new data or created for the first time.
- ▶ So when ever we login we create an object using data in file, update this object and update the file.
- ▶ When we register we create an object and it automatically creates a file for that User



Thanks