

Project Code-v1.0



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Σύνθεση/Ρόλοι ομάδας

Η ομάδα μας αποτελείται από 3 άτομα, τα ονόματα, οι αριθμοί μητρώου και το έτος μας παρατίθενται παρακάτω:

Σίδερης Στέλιος: AM:1075217, έτος:4^ο

Ψυρρής Άγγελος: AM:1067448, έτος:5^ο

Ψυρρή Διονυσία: AM:1080424, έτος:4^ο

Για το παρόν τεχνικό κείμενο εργάστηκαν ως:

Author: Σίδερης Στέλιος

Quality Manager: Ψυρρή Διονυσία, Ψυρρής Άγγελος

Αλλαγές στην έκδοση

Αλλάξαμε στα τεχνικά κομμάτια που βρίσκονται οι τελικές αλλαγές στον κώδικα, και προσθέσαμε στο use case 8 κάποια έξτρα περιγραφή.

Τεχνικά Κομμάτια

link github: <https://github.com/Dionusia/Software-Engineering>

Για αρχή να αναφέρουμε ότι υλοποιήσαμε και τα 8 use cases, τα οποία περιγράψαμε και ασχοληθήκαμε τελικώς. Ο αντίστοιχος κώδικας ο οποίος θα περιγραφεί βρίσκεται στο παραδοτέο 6 του github και είναι μέχρι και η τελευταία αλλαγή που έχουμε κάνει για την παραδόση του 6^{ου} και τελευταίου παραδοτέου.

Επεξήγηση υλοποίησης κώδικα

Στην υλοποίηση του κώδικα μας, δεν υλοποιήσαμε βάση δεδομένων και UI, η λειτουργικότητα του κώδικα θα παρουσιαστεί μέσω terminal και τα δεδομένα να είναι hard code. Μια σύντομη αναφορά ότι δημιουργήσαμε μεθόδους για εισαγωγή δεδομένων και κάποιες μεθόδους για μετατροπή δεδομένων σε συγκεκριμένο στυλ, ώστε να μπορούμε να τα χρησιμοποιήσουμε για να δείξουμε την λειτουργικότητα. Ακόμη για διευκόλυνση παρουσίασης του κώδικα δημιουργήσαμε τις κλάση Menu, MenuClient, MenuInstructor τις οποίες δεν έχουμε αναφέρει στο Class Diagram διότι απλώς είναι για παρουσίαση των επιλογών του χρήστη για να πλοηγείται και να εμφανίζονται όλες οι επιλογές του και να τον παραπέμπει εκεί που πρέπει.

- Πως θα συνδεθείτε σαν client ή instructor από την LoginPage(η κλάση αυτή περιέχει τη main που θα τρέξουμε για να ξεκινήσουμε το πρόγραμμα)

Credentials για client:

username: dionusia password: 1234

username: stelios password:1234

Credentials για instructor:

username: aggelos password:1234

```
C:\bin> Login Page
Welcome to FIND YOUR BALANCE! Please choose an option:
1. Login
2. Register
3. Exit
1
Enter your username:
dionusia
Enter your password:
1234
Login successful!
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: █
```

Θα σας κάνουμε μια παρουσίαση των λειτουργιών του κώδικα(κάθε use case) με κάποια screenshots ώστε να δείξουμε την σωστή λειτουργία τους. Δεν θα παρουσιάσουμε όλες τις εναλλακτικές ροές(για να μην έχουμε πολλά screenshots) αλλά θα δείξουμε δείγματα για use case, ώστε να δείξουμε την λειτουργικότητα τους.

use case 1: Παρακολούθηση γευμάτων (view and track meal plans) ---επιλογή FoodDiary(choice=1)

Βασική Ροή:

```
----- FOOD DIARY -----
1. Display diary
2. Add food item
3. Remove food item
4. Update food item
5. Add custom meal
6. Search food item
7. Back to main menu
-----
Enter your choice: 2
Please select a category of meal or snack you want to record:
1. Breakfast
2. Lunch
3. Dinner
4. Snack
1
Please select an option to add the food:
1. Manually enter the food information
2. Scan the barcode using the phone's camera
1
Please enter the name of the food:
cereals
Please enter the calories:
10
Please enter the fat:
5
Please enter the cholesterol:
5
Please enter the carbohydrates:
```

```
Please enter the fiber:
5
Please enter the protein:
5
Please enter the number of vitamins:
5
Please enter any notes or details about the food:
with almond milk
Please enter a custom name or tag for the food:

gala delta
Meal recorded successfully!
----- FOOD DIARY -----
1. Display diary
2. Add food item
3. Remove food item
4. Update food item
5. Add custom meal
6. Search food item
7. Back to main menu
-----
Enter your choice: Invalid input. Please enter a valid integer.
Enter your choice: 1
Your food diary:
- cereals (BREAKFAST)
-----
Summary of Nutritional Information:
Total Calories: 10
Total Fat: 5g
Total Cholesterol: 5mg
Total Carbohydrates: 5g
Total Fiber: 5g
Total Protein: 5g
Total Vitamins: 5
-----
```

Παραθέτουμε επίσης την εναλλακτική ροή 4 που είναι η αναζήτηση, για λειτουργικότητα έχουν προσθεθεί ήδη κάποια γεύματα να προσθέσει ο χρήστης:

Βλέπουμε οτι προστέθηκε στο ημερολόγιο

```
----- FOOD DIARY -----
1. Display diary
2. Add food item
3. Remove food item
4. Update food item
5. Add custom meal
6. Search food item
7. Back to main menu
-----
Enter your choice: 6
Search for a meal:
Banana
Matching food items:
1. Banana
Enter the number of the food item you want to add:
1
Added Banana to your food diary.
```

```
----- FOOD DIARY -----
1. Display diary
2. Add food item
3. Remove food item
4. Update food item
5. Add custom meal
6. Search food item
7. Back to main menu
-----
Enter your choice: 1
Your food diary:
- Banana (BREAKFAST)
-----
Summary of Nutritional Information:
Total Calories: 111
Total Fat: 3g
Total Cholesterol: 0mg
Total Carbohydrates: 25g
Total Fiber: 4g
Total Protein: 10g
Total Vitamins: 1
```

use case 2: Προβολή προγραμμάτων γυμναστικής και διατροφής (view and select fitness and diet meal programs) (choice =2)

Βασική Ροή:

```

----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 2
Please fill out the Fitness and Dietary Preferences Questionnaire
What is your current fitness level?
medium
What is your primary fitness goal?
weight loss
Do you have any dietary restrictions? If so, please specify.
no
----- RECOMMENDED PROGRAMS -----
1. View recommended programs
2. View my programs
3. Modify saved program
4. Update questionnaire
5. Back to main menu
-----
Enter your choice: █

```

```

----- RECOMMENDED PROGRAMS -----
1. View recommended programs
2. View my programs
3. Modify saved program
4. Update questionnaire
5. Back to main menu
-----
Enter your choice: 1
All Programs:
1. Fitness Program: Fitness Program 1
Duration: 30 minutes
Exercises: [Push-ups, Squats, Plank]
2. Fitness Program: Fitness Program 2
Duration: 45 minutes
Exercises: [Running, Jumping Jacks, Burpees]
3. Diet Program: Diet Program 1
Duration: 30 days
Meals: [Breakfast: Oatmeal with fruits, Lunch: Grilled chicken with vegetables, Dinner: Salmon with quinoa]
4. Diet Program: Diet Program 2
Duration: 45 days
Meals: [Breakfast: Avocado toast, Lunch: Quinoa salad, Dinner: Vegetable stir-fry]
Enter the program numbers you want to save (separated by commas): 2,3
Programs saved successfully!

```

```

----- RECOMMENDED PROGRAMS -----
1. View recommended programs
2. View my programs
3. Modify saved program
4. Update questionnaire
5. Back to main menu
-----
Enter your choice: 2
Saved Programs:
1. Fitness Program: Fitness Program 2
Duration: 45 minutes
Exercises: [Running, Jumping Jacks, Burpees]
2. Diet Program: Diet Program 1
Duration: 30 days
Meals: [Breakfast: Oatmeal with fruits, Lunch: Grilled chicken with vegetables, Dinner: Salmon with quinoa]
-----

```

----- RECOMMENDED PROGRAMS -----

1. View recommended programs
2. View my programs
3. Modify saved program
4. Update questionnaire
5. Back to main menu

Enter your choice: 3

Saved Programs:

1. Fitness Program: Fitness Program 2

Duration: 45 minutes

Exercises: [Running, Jumping Jacks, Burpees]

2. Diet Program: Diet Program 1

Duration: 30 days

Meals: [Breakfast: Oatmeal with fruits, Lunch: Grilled chicken with vegetables, Dinner: Salmon with quinoa]

Enter the program number you want to modify: Enter your choice: 1

Selected Program:

Fitness Program 2

Enter the new fitness program name (or leave blank to keep the same):

Enter the new fitness program duration in minutes (or 0 to keep the same): Enter your choice: 20

Enter the new exercises (separated by commas) (or leave blank to keep the same):

Program modified successfully!

----- RECOMMENDED PROGRAMS -----

1. View recommended programs
2. View my programs
3. Modify saved program
4. Update questionnaire
5. Back to main menu

Enter your choice: 2

Saved Programs:

1. Fitness Program: Fitness Program 2

Duration: 20 minutes

Exercises: [Running, Jumping Jacks, Burpees]

2. Diet Program: Diet Program 1

Duration: 30 days

Meals: [Breakfast: Oatmeal with fruits, Lunch: Grilled chicken with vegetables, Dinner: Salmon with quinoa]

use case 3: Προβολή συνταγών (view and select recipes) (choice =3)

Βασική Ροή:

```
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 3
----- RECIPES -----
1. Display recommended recipes
2. Display personal recipes
3. Modify a recipe
4. Share a recipe
5. Create a new recipe
6. Search recipes by ingredient
7. Back to main menu
-----
Enter your choice: █
```


----- RECIPES -----

1. Display recommended recipes
2. Display personal recipes
3. Modify a recipe
4. Share a recipe
5. Create a new recipe
6. Search recipes by ingredient
7. Back to main menu

Enter your choice: 1

Recommended Recipes:

1. Spaghetti Bolognese

Cooking Time: 30 minutes

Serving Size: 4

Dietary Preferences: Vegetarian

Ingredients:

- Spaghetti: 200.0 grams
- Ground Beef: 500.0 grams
- Tomato Sauce: 400.0 grams
- Onion: 1.0 medium

Instructions:

- Cook spaghetti according to package instructions.
- In a large pan, brown the ground beef and onion.
- Add tomato sauce and simmer for 10 minutes.
- Serve the sauce over cooked spaghetti.

2. Chicken Stir-Fry

Cooking Time: 25 minutes

Serving Size: 3

Dietary Preferences: Vegan

Ingredients:

- Chicken Breast: 400.0 grams
- Bell Pepper: 2.0 pieces
- Broccoli: 1.0 head
- Soy Sauce: 2.0 tablespoons

Instructions:

- Soy Sauce: 2.0 tablespoons

Instructions:

- Cut the chicken, bell pepper, and broccoli into bite-sized pieces.
- Stir-fry the chicken in a pan until cooked.
- Add the bell pepper and broccoli and cook for 3-4 minutes.
- Stir in the soy sauce and cook for another 2 minutes.

3. Roasted Vegetable Quinoa Salad

Cooking Time: 40 minutes

Serving Size: 6

Dietary Preferences: ?mnivorous

Ingredients:

- Quinoa: 1.0 cup
- Bell Pepper: 2.0 pieces
- Zucchini: 1.0 medium
- Cherry Tomatoes: 1.0 cup
- Red Onion: 1.0 small
- Olive Oil: 2.0 tablespoons
- Lemon Juice: 2.0 tablespoons
- Onion: 2.0 medium

Instructions:

- Cook quinoa according to package instructions.
- Preheat the oven to 400°F (200°C).
- Cut the bell pepper, zucchini, and red onion into bite-sized pieces.
- Toss the vegetables with olive oil, salt, and pepper.
- Spread the vegetables on a baking sheet and roast for 20-25 minutes.
- In a large bowl, combine cooked quinoa, roasted vegetables, cherry tomatoes, and lemon juice.
- Season with salt and pepper to taste.

Enter the number of the recipe you want to add to your personal collection: 3

Recipe added to personal collection successfully!

Recipe added to personal collection successfully.

----- RECIPES -----

1. Display recommended recipes
2. Display personal recipes
3. Modify a recipe
4. Share a recipe
5. Create a new recipe
6. Search recipes by ingredient
7. Back to main menu

Enter your choice: 4

Select a recipe to share:

1. Roasted Vegetable Quinoa Salad

Enter your choice: 1

Select a sharing option:

1. Email
2. Facebook
3. Twitter
4. WhatsApp

Enter your choice: 2

Successfully shared recipe 'Roasted Vegetable Quinoa Salad' on Facebook

----- RECIPES -----

1. Display recommended recipes
2. Display personal recipes
3. Modify a recipe
4. Share a recipe
5. Create a new recipe
6. Search recipes by ingredient
7. Back to main menu

Enter your choice: █

*το rating μιας συνταγής υλοποιήθηκε στην επιλογή 6 reviews για πιο ομοιόμορφο κώδικα(Εναλλακτική ροή 2)

```
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 6
1. Review Recipe
2. Review Instructor
Enter your choice: 1
Select a recipe to review:
Recipe Names:
1. Pasta Carbonara
2. Chicken Stir Fry
Enter the number of the recipe you want to review:
2
Rate the recipe on a scale of 1-5 stars:
4
Write a review for the recipe:
tasty
Review added successfully!
```

use case 4: Επικοινωνία (communicate with instructors and other users) (choice=4)

Βασική ροή-Εναλλακτική Ροή 4:

```
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 4
----- CHAT MESSAGE -----
1. Chat with users
2. Search user
3. Create group chat
4. Back to main menu
-----
Enter your choice: 1
Select a user to communicate with:
Registered Users:
1. stelios
2. aggelos
3. dionusia
Enter your choice: 2
You selected: aggelos
Enter your message:
```

```
Enter your choice: 2
You selected: aggelos
Enter your message:
hi
Message sent successfully!
----- CHAT MESSAGE -----
1. Chat with users
2. Search user
3. Create group chat
4. Back to main menu
-----
Enter your choice: 3
Select users to create a group chat:
Registered Users:
1. stelios
2. aggelos
3. dionusia
Enter the numbers of the users (comma-separated) to add to the group chat:
1,2
Group chat created with the following users:
- stelios
- aggelos
Enter your message:
hi
Message sent successfully to the group chat members!
```

use case 5: Προκλήσεις (participate in challenges) (choice=5)

Βασική Ροή:

```
Login Successful!
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 5
----- CHALLENGES -----
1. Display challenges
2. Search challenge
3. Back to main menu
-----
Enter your choice: 1
```

```
-----
Enter your choice: 1
----- CHALLENGES -----
1. Challenge: Healthy Eating Challenge
Description: Improve your eating habits and make healthier food choices.
Rules: Follow a balanced diet, avoid processed foods, and consume plenty of fruits and vegetables.
Duration: 30 days
Requirements: Keep a food journal and track your daily meals.
2. Challenge: 30-Day Fitness Challenge
Description: Get fit and improve your overall physical fitness in just 30 days.
Rules: Perform a combination of cardio exercises, strength training, and flexibility exercises.
Duration: 30 days
Requirements: Create a workout plan and track your progress.
-----
Select a challenge (enter the corresponding number): 1
Challenge: Healthy Eating Challenge
Description: Improve your eating habits and make healthier food choices.
Rules: Follow a balanced diet, avoid processed foods, and consume plenty of fruits and vegetables.
Duration: 30 days
Requirements: Keep a food journal and track your daily meals.
Do you accept the terms and conditions of the challenge? (Y/N): Y
You have accepted the terms and conditions of the challenge.
Starting the challenge...
Congratulations! You have successfully completed the challenge.
You have earned 20 points, for completing the challenges.
----- CHALLENGES -----
```

Εναλλακτική Ροή 1:

```
----- CHALLENGES -----
1. Display challenges
2. Search challenge
3. Back to main menu
-----
Enter your choice: 2
----- SEARCH CHALLENGE -----
Enter the keyword to search: fit
Challenge: 30-Day Fitness Challenge
Description: Get fit and improve your overall physical fitness in just 30 days.
Rules: Perform a combination of cardio exercises, strength training, and flexibility exercises.
Duration: 30 days
Requirements: Create a workout plan and track your progress.
-----
```

use case 6: Κριτική-Αξιολόγηση (provide feedback and reviews) (choice=6)

```
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 6
1. Review Recipe
2. Review Instructor
Enter your choice: 2
Registered Instructors:
1. aggelos
2. nadia
Enter the number corresponding to the instructor you want to rate:
1
Rate the instructor on a scale of 1-5 stars:
4
Write a review for the instructor:
very helpful
Review and rating submitted successfully!
```

*το να μπορέσει ο instructor να δει το feedback, είναι σαν επιλογή στο menu του instructor(λόγω οτι τρέχουμε σε terminal και δεν αποθηκεύονται δεν προβάλλεται η κριτική)

```
Logging user in
Welcome to FIND YOUR BALANCE! Please choose an option:
1. Login
2. Register
3. Exit
1
Enter your username:
aggelos
Enter your password:
1234
Login successful!
----- MENU INSTRUCTOR -----
1. Create Meal Plan
2. Create Fitness Plan
3. Manage Client Profile
4. See your feedback
5. Log Out
-----
Enter your choice: 4
No reviews found for the logged-in instructor.
```

Εναλλακτική Ροή 3:

```
Login successful!
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 6
1. Review Recipe
2. Review Instructor
Enter your choice: 2
Registered Instructors:
1. aggelos
2. nadia
Enter the number corresponding to the instructor you want to rate:
1
Rate the instructor on a scale of 1-5 stars:
4
Write a review for the instructor:

Review text cannot be empty. Please write a review.
Write a review for the instructor:
█
```

use case 7: Ανταμοιβές (view rewards and points) (choice=9)

Βασική Ροή

```
login successful
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 9
----- REWARD SYSTEM -----
1. Display points
2. Available Rewards
3. View History
4. Back to main menu
-----
Enter your choice: 1
Total Points: 100

----- REWARD SYSTEM -----
1. Display points
2. Available Rewards
3. View History
4. Back to main menu
-----
Enter your choice: 2
Available Rewards:
1. Discount Coupon in Fitness Equipment (50 points)
2. Gift Card (100 points)
3. Free Diet Program (75 points)
0. Back to reward menu

Enter your choice: 2
Congratulations! You have redeemed the reward: Gift Card (100 points)
Points deducted: 100
Remaining points: 0
Instructions on how to claim the reward will be provided.
```

Εναλλακτική Ροή 1:

```
----- REWARD SYSTEM -----
1. Display points
2. Available Rewards
3. View History
4. Back to main menu
-----
Enter your choice: 1
Total Points: 0

----- REWARD SYSTEM -----
1. Display points
2. Available Rewards
3. View History
4. Back to main menu
-----
Enter your choice: 2
Available Rewards:
1. Discount Coupon in Fitness Equipment (50 points)
2. Gift Card (100 points)
3. Free Diet Program (75 points)
0. Back to reward menu

Enter your choice: 1
You don't have enough points to redeem this reward.
```


use case 8: Παρακολούθηση κατανάλωσης νερού (track water intake) (choice=7)

*στην εισαγωγή username για να προχωρήσετε θα εισάγεται έναν απο τους client που έχουμε, οι οποίοι είναι:

1) stelios 2) dionusia

Αυτο διότι θέλαμε να κάνουμε match τους register users με κάποιο τρόπο για να έχουμε κάποια απο τα στοιχεία τους, ώστε να προχωρήσουμε.

Βασική Ροή:

```
Enter your choice: 7
----- MENU -----
1. Food Diary
2. Recommended Programs
3. Recipes
4. Chat Room
5. Challenges
6. Reviews
7. Water Tracker
8. Set your goals
9. Rewards/Points
10. Change Info
11. Log Out
-----
Enter your choice: 7
Enter your username: stelios
----- WATER TRACKER -----
1. Display intake of the day
2. Import water
3. View History
4. Back to main menu
-----
Enter your choice: 2
Enter the amount of water consumed (in ml): Enter an integer value: 10
Water intake of 10ml imported successfully.
Total water intake for the day: 10ml
Congratulations! You have reached your water intake goal for the day.
```

```
----- WATER TRACKER -----
1. Display intake of the day
2. Import water
3. View History
4. Back to main menu
-----
Enter your choice: 2
Enter the amount of water consumed (in ml): Enter an integer value: 30
Water intake of 30ml imported successfully.
Total water intake for the day: 30ml
Congratulations! You have reached your water intake goal for the day.
----- WATER TRACKER -----
1. Display intake of the day
2. Import water
3. View History
4. Back to main menu
-----
Enter your choice: 1
Current water intake: 40ml
```

Εναλλακτική Ροή 1:

```
----- WATER TRACKER -----
1. Display intake of the day
2. Import water
3. View History
4. Back to main menu
-----
Enter your choice: 3
Water Intake History:
1. 10ml
2. 30ml

----- HISTORY MENU -----
1. Modify Intake
2. Delete Intake
3. Exit
-----
Enter your choice: 1
Enter the index of the intake to modify: 1
Enter the new intake amount: 15
Intake of 30ml has been modified to 15ml in the history.
```

Εναλλακτική Ροή 3:

```
----- WATER TRACKER -----
1. Display intake of the day
2. Import water
3. View History
4. Back to main menu
-----
Enter your choice: 3
No intake history available.

----- HISTORY MENU -----
1. Modify Intake
2. Delete Intake
3. Select range to display history
4. Exit
-----
Enter your choice: 3
Enter the start date (yyyy-mm-dd):
2023-03-10
Enter the end date (yyyy-mm-dd):
2023-05-20
Water Intake History for the range 2023-03-10 - 2023-05-20:
No intake history available for the specified range.
```