

Personalized Nutrition Recommendation System

GROUP 14

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Main idea

- 讓使用者記錄自己每天的飲食
- 計算使用者每天、每週攝取的營養成分含量
- 針對使用者的身體數值給予營養攝取的建議

Dataset

- [Our datasets](#)

- Calorie :

<u>food</u>	Caloric_Value
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- Carbon_Sugar :

<u>food</u>	Carbohydrates	Sugars
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- Dietary_Fiber_Cholesterol :

<u>food</u>	Dietary_Fiber	Cholesterol
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Dataset

- Mineral :

<u>food</u>	Sodium	Calcium	Copper	Iron
Manganese	Phosphorus	Potassium	Selenium	Zinc

- Fat :

<u>food</u>	Fat	Saturated_Fats	Monounsaturated_Fats	Polyunsaturated_Fats
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Dataset

- Nutrition Density :

<u>food</u>	Nutrition_Density
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- Water :

<u>food</u>	Water
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- Protein :

<u>food</u>	Protein
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- Vitamin :

<u>food</u>	Vitamin_A	Vitamin_B1	Vitamin_B11	Vitamin_B12	Vitamin_B2	
Vitamin_B3	Vitamin_B5	Vitamin_B6	Vitamin_C	Vitamin_D	Vitamin_E	Vitamin_K

Database

- 我們將datasets的資料合併成foods：

<u>food</u>	Caloric_Value	Carbohydrates	Sugars	Dietary_Fiber	Cholesterol	Fat
Saturated_Fats	Monounsaturated_Fats	Polyunsaturated_Fats	Sodium	Calcium	Copper	Iron
Magnesium	Manganese	Phosphorus	Potassium	Selenium	Zinc	Nutrition_Density
Protein	Vitamin_A	Vitamin_B1	Vitamin_B2	Vitamin_B3	Vitamin_B5	Vitamin_B6
Vitamin_B11	Vitamin_B12	Vitamin_C	Vitamin_D	Vitamin_E	Vitamin_K	Water

Database

- Example of foods:

```
mysql> select * from foods order by food limit 10;
```

food	Caloric_Value	Carbohydrates	Sugars	Dietary_Fiber	Cholesterol	Fat	Saturated_Fats	Monounsaturated_Fats	Polyunsaturated_Fats	Sodium
abalone	89	5.1	0	0	72.3	0.6	0.1	0.02	0.091	0.3
abiyuch	157	40.1	19.5	12.1	0	0.2	0.065	0	0	0.093
acerola cherry	2	0.4	0	0.077	0	0.052	0.074	0.086	0.036	0.088
acerola cherry juice	56	11.6	10.9	0.7	0	0.7	0.2	0.2	0.2	0.082
acorn dried	144	15.2	0	0	0	8.9	1.2	5.6	1.7	0
acorn flour	626	68.3	0	0	0	37.7	4.9	23.9	7.3	0
acorn raw	110	11.5	0	0	0	6.8	0.9	4.3	1.3	0
acorn squash cooked	115	29.9	0	9	0	0.3	0.023	0.072	0.1	0.5
acorn squash raw	172	44.9	0	6.5	0	0.4	0.091	0.086	0.2	0.017
adobo fresco	780	53.6	5.8	3.7	0	60.2	8.4	43.1	5.9	49.4

10 rows in set (0.00 sec)

Database

BMI	身體質量指數
BMR	基礎代謝率
TDEE	總熱量消耗

- customers :

<u>user_id</u>	name	password	workout_frequency	weight	height	age
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- Example of customers:

```
mysql> select* from customers;
+-----+-----+-----+-----+-----+-----+-----+
| user_id | name | password | workout_frequency | weight | height | age |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | 123 | a665a45920422f9d417e4867efdc4fb8a04a1f3fff1fa07e998e86f7f7a27ae3 | 2 | 1 | 1 | 1 |
| 2 | 1 | 6b86b273ff34fce19d6b804eff5a3f5747ada4eaa22f1d49c01e52ddb7875b4b | 5 | 60 | 170 | 20 |
| 3 | 1234 | 03ac674216f3e15c761ee1a5e255f067953623c8b388b4459e13f978d7c846f4 | 5 | 45 | 160 | 20 |
+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```


Database

- meals :

<u>user_id</u>	<u>date</u>	<u>time</u>	<u>food</u>
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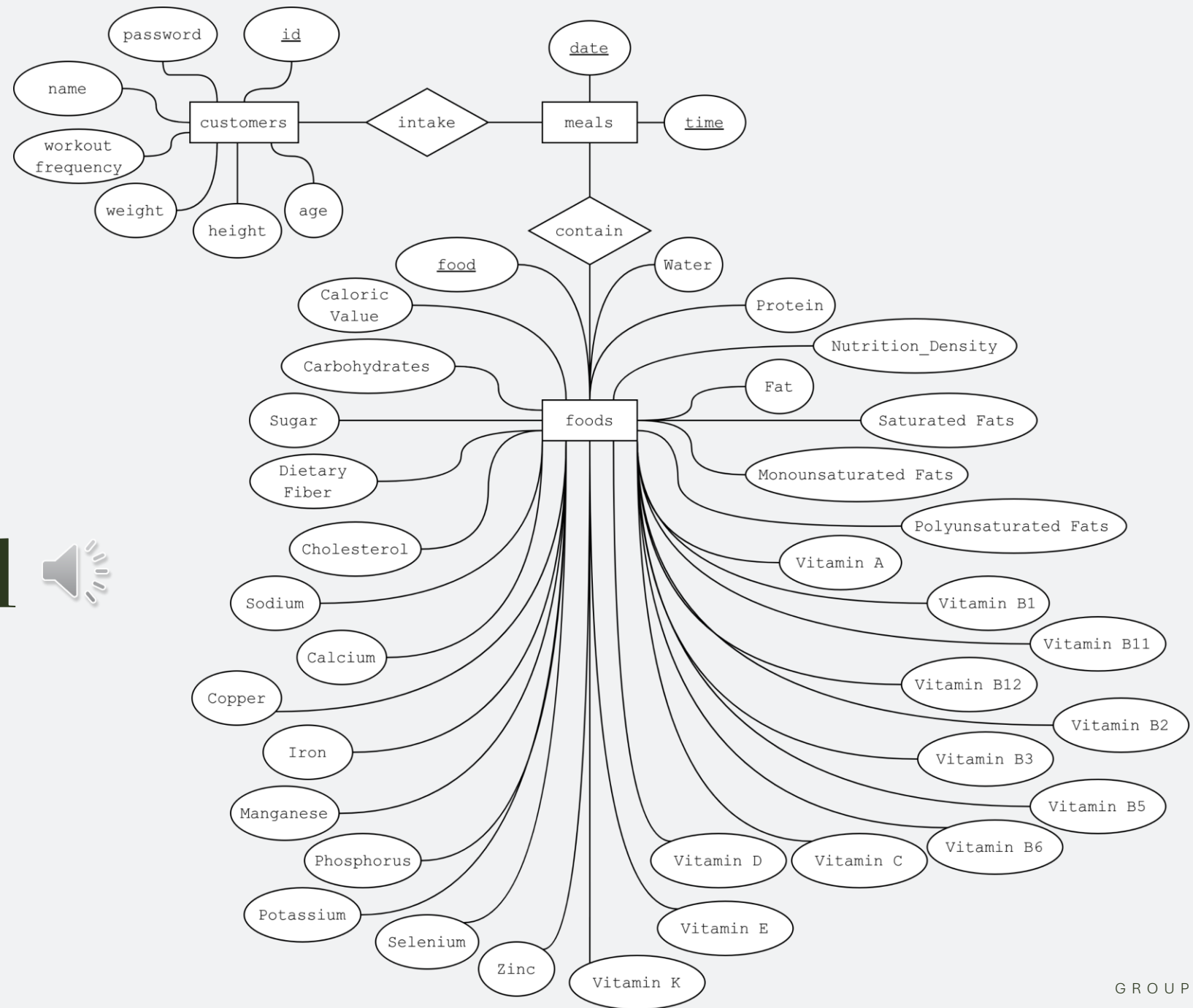
- Example of meals:

```
mysql> select * from meals where user_id = 1;
```

user_id	date	time	food
1	2024-12-25	Breakfast	romano cheese
1	2024-12-25	Lunch	salt pork raw
1	2024-12-25	Lunch	vegetable beef soup

```
3 rows in set (0.00 sec)
```

Database ER model



Function of application

- Sign in and Log in：建立使用者資料、記錄於資料庫
- Your Profile：修改個人資料、身體數值
- Food Information：搜尋食物、顯示各項attribute
- Diet Record：搜尋食物、將食物加入清單
- Diet Suggestion：檢視每天、每周攝取的營養數值

Contribution of each team member

曾歆喬	database and SQL	Presentation	Report
陳奕潔			
黃襄香	website and flask	Demo	
陳宥臻			