Project Phase 1 – Backend

Team Members:

· Tolga Mert ÇALIŞKAN – 29335

· Onur MERİÇ - 29516

· Bülent Emin ÜSTÜN - 27822

· Ahmet Eren ÇAĞATAY – 29041

Backend Description

Our backend for the Fitmobile application provides information about muscle groups and exercises. Users can retrieve a list of all muscle groups and exercises, and search for specific exercises or muscle groups. Users can also retrieve comments about specific exercises or all exercises and post comments about a specific exercise.

Endpoints:

1- Get list of all Muscle Groups

Description: Lists all muscle groups. Group and info returned.

Address: http://localhost:8080/muscle/groups

Method: GET

Returns: JSON Array:

```
[
    {
        "group": "Chest",
        "info": "Pectoral muscles (colloquially referred to as
        "pecs") are the muscles that connect the front of the
        human chest with the bones of the upper arm and shoulder.
        This region contains four muscles that provide movements
        to the upper limbs or ribs."
    },
    {
        "group": "Back",
```

```
        "info": "The muscles of the back are a group of strong,
        paired muscles that lie on the posterior aspect of the
        trunk. They provide movements of the spine, stability to
        the trunk, as well as the coordination between the
        movements of the limbs and trunk."

    }

]
```

2- Get list of all Exercises

Description: Lists all exercises. ID, name, explanation, level, videoUrl and muscle returned.

Address: http://localhost:8080/muscle/exercises

Method: GET

Returns: JSON Array:

```
[

{

        "id": "6453fc8bd1dab20fb907ce26",

        "name": "Bench Press",

        "explanation": "Lie on a bench, grip a barbell with hands
shoulder-width apart, lower the bar to your chest, and press it back
up. Suggested set size: 5x5",

        "level": "HARD",

        "videoUrl": "https://www.youtube.com/watch?v=rT7DgCr-
3pg&t=2s",

        "muscle": {

          "group": "Chest",

          "info": "Pectoral muscles (colloquially referred to as
\"pecs\") are the muscles that connect the front of the human chest
with the bones of the upper arm and shoulder. This region contains
four muscles that provide movements to the upper limbs or ribs."

        }

    },

    {

        "id": "6453fc8bd1dab20fb907ce27",

        "name": "Push Up",

        "explanation": "Get into a plank position with hands
slightly wider than shoulder-width apart, lower your body until your
```

```
chest nearly touches the floor, and push back up. Suggested set
size: 5 x Until Failure",

        "level": "MEDIUM",

        "videoUrl": "https://www.youtube.com/watch?v=JyCG_5l3XLk",

        "muscle": {

            "group": "Chest",

            "info": "Pectoral muscles (colloquially referred to as
\"pecs\") are the muscles that connect the front of the human chest
with the bones of the upper arm and shoulder. This region contains
four muscles that provide movements to the upper limbs or ribs."

        }

    }

]
```

3- All Exercises of a Muscle Group

Description: Lists all exercises by "name" of the muscle group. ID, name, explanation, level, videoUrl and muscle returned. (Following example name: arms)

Address: http://localhost:8080/muscle/groups/{name} name: arms for the example below.

Method: GET

Returns: JSON Array:

```
[

    {

        "id": "64540202af78b726a86a836d",

        "name": "Bicep Curl",

        "explanation": "Hold dumbbells with palms facing forward,
bend your elbows, and curl the weights towards your shoulders.
Suggested set size 3 x 12",

        "level": "EASY",

        "videoUrl": "https://www.youtube.com/watch?v=ziVPFOROR3k",

        "muscle": {

            "group": "Arms",

            "info": "Your arms contain many muscles that work
together to allow you to perform all sorts of motions and tasks.
Each of your arms is composed of your upper arm and forearm. Your
```

```
upper arm extends from your shoulder to your elbow. Your forearm
runs from your elbow to your wrist."

        }

    },

    {

        "id": "64540202af78b726a86a836e",

        "name": "Triceps Pushdown",

        "explanation": "Stand at a cable machine with a high pulley,
grip a straight or V-bar with palms facing down, and press the bar
down by extending your arms. Suggested set size 3 x 12",

        "level": "EASY",

        "videoUrl": " https://www.youtube.com/watch?v=2-LAMcpzODU",

        "muscle": {

            "group": "Arms",

            "info": "Your arms contain many muscles that work
together to allow you to perform all sorts of motions and tasks.
Each of your arms is composed of your upper arm and forearm. Your
upper arm extends from your shoulder to your elbow. Your forearm
runs from your elbow to your wrist."

        }

    }

]
```

4- Exercises by Name

Description: Find the exercise by name (name can be partial i.e. ext for back extension). ID, name, explanation, level, videoUrl and muscle returned. (Following example name: Back Extension)

Address: http://localhost:8080/muscle/exercises/{name} name: extension for the example below.

Method: GET

Returns: JSON Array

```
[

    {

        "id": "64540202af78b726a86a8364",
```

```
            "name": "Back Extension",

            "explanation": "Lie face down on a back extension bench,
place your feet securely under the footpads, and lift your upper
body until it's in line with your lower body. Suggested set size:
3x12",

            "level": "EASY",

            "videoUrl": "https://www.youtube.com/watch?v=ph3pddpKzzw",

            "muscle": {

                "group": "Back",

                "info": "The muscles of the back are a group of strong,
paired muscles that lie on the posterior aspect of the trunk. They
provide movements of the spine, stability to the trunk, as well as
the coordination between the movements of the limbs and trunk."

            }

        },

        {

            "id": "64540202af78b726a86a8368",

            "name": "Leg Extension",

            "explanation": "Sit on a leg extension machine, place your
shins under the padded bar, and extend your legs fully. Suggested
set size: 4x12",

            "level": "EASY",

            "videoUrl": "https://www.youtube.com/watch?v=PQRY75OY2TY",

            "muscle": {

                "group": "Legs",

                "info": "The majority of muscles in the leg are
considered long muscles, in that they stretch great distances. As
these muscles contract and relax, they move skeletal bones to create
movement of the body. Smaller muscles help the larger muscles,
stabilize joints, help rotate joints, and facilitate other fine-
tuned movements."

            }

        }

    }

]
```

5- All Comments of an Exercise

Description: Find all comments on desired exercises by name. ID, content, and exercises returned. (Following example name: Deadlift)

Address: http://localhost:8080/comments/exercise/{name} name: Deadlift for the example below.

Method: GET

Returns: JSON Array

```
[

    {

        "id": "6453fc8cd1dab20fb907ce47",

        "content": "my back hurt vanished",

        "exercise": {

            "id": "6453fc8bd1dab20fb907ce2f",

            "name": "Deadlift",

            "explanation": "Stand with feet hip-width apart, bend at
the hips and knees, grip a barbell with an overhand or mixed grip,
and lift the bar by extending your hips and knees. Suggested set
size: 5x5",

            "level": "HARD",

            "videoUrl":
"https://www.youtube.com/watch?v=1VrZ1QLTdUs",

            "muscle": {

                "group": "Back",

                "info": "The muscles of the back are a group of
strong, paired muscles that lie on the posterior aspect of the
trunk. They provide movements of the spine, stability to the trunk,
as well as the coordination between the movements of the limbs and
trunk."

            }

        }

    }

]
```

6- All Comments

Description: Find all comments in database. ID, content, and exercises returned.

Address: http://localhost:8080/comments/all

Method: GET

Returns: JSON Array

```
[
    {
        "id": "6453fc8cd1dab20fb907ce3d",

        "content": "nice exercise",

        "exercise": {

            "id": "6453fc8bd1dab20fb907ce26",

            "name": "Bench Press",

            "explanation": "Lie on a bench, grip a barbell with
hands shoulder-width apart, lower the bar to your chest, and
press it back up. Suggested set size: 5x5",

            "level": "HARD",

            "videoUrl":
"https://www.youtube.com/watch?v=rT7DgCr-3pg&t=2s",

            "muscle": {

                "group": "Chest",

                "info": "Pectoral muscles (colloquially
referred to as \"pecs\") are the muscles that connect the front
of the human chest with the bones of the upper arm and
shoulder. This region contains four muscles that provide
movements to the upper limbs or ribs."

            }

        }

    },

    {

        "id": "6453fc8cd1dab20fb907ce3e",

        "content": "hurts my shoulder",

        "exercise": {

            "id": "6453fc8bd1dab20fb907ce26",

            "name": "Bench Press",

            "explanation": "Lie on a bench, grip a barbell with
hands shoulder-width apart, lower the bar to your chest, and
press it back up. Suggested set size: 5x5",

            "level": "HARD",

            "videoUrl":
"https://www.youtube.com/watch?v=rT7DgCr-3pg&t=2s",
```

```
            "muscle": {

                    "group": "Chest",

                    "info": "Pectoral muscles (colloquially
referred to as \"pecs\") are the muscles that connect the front
of the human chest with the bones of the upper arm and
shoulder. This region contains four muscles that provide
movements to the upper limbs or ribs."

            }

        }

    }

]
```

7- Post Comment

Description: Write comment on selected exercise.

Address: http://localhost:8080/comments/post

Method: POST

Accept: Application/JSON:

```
[

    {

        "content":"good exercise I like it",

        "exercise": {

                "id": "6452d2707765900a5884eaed",

                "name": "Bench Press",

                "explanation": "Lie on a bench, grip a barbell with
hands shoulder-width apart, lower the bar to your chest, and
press it back up. Suggested set size: 5x5",

                "level": "HARD",

                "videoUrl":
"https://www.youtube.com/watch?v=rT7DgCr-3pg&t=2s",

                "muscle": {

                    "group": "Chest",

                    "info": "Pectoral muscles (colloquially
referred to as \"pecs\") are the muscles that connect the front
of the human chest with the bones of the upper arm and
shoulder. This region contains four muscles that provide
movements to the upper limbs or ribs."

                }
```

```
            }

        }

]
```

Returns: JSON Object

```
{

    "text": "Comment has been saved!",

    "responseDate": "2023-05-04T21:44:13.636985"

}
```