

## TC\_BT\_Group\_2 Project: BMI Calculator

### Overview

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This BMI (Body Mass Index) Calculator API allows users to determine their BMI and associated health category using either metric or imperial units. It is built using Node.js and Express.js and exposes two endpoints: one for GET requests and another for POST requests.

### What the Project Does

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The API takes a user's weight and height, calculates their BMI, and returns:

- The BMI value (rounded to one decimal place)
- The corresponding BMI category (e.g., Normal weight, Overweight)

### How to Install & Run It

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# Clone the repo

```
git clone https://github.com/yourusername/bmi-calculator.git
```

```
cd bmi-calculator
```

# Install dependencies

```
npm install
```

# Run the server

```
npm start
```

Server will start on <http://localhost:3000>

## API Usage

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### 1. GET /bmi

Request:

GET /bmi?weight=70&height=1.75

Response:

```
{  
  "bmi": 22.9,  
  "category": "Normal weight"  
}
```

### 2. POST /bmi

Request:

POST /bmi

Content-Type: application/json

```
{  
  "weight": 70,  
  "height": 1.75  
}
```

Response:

```
{
```

```
"bmi": 22.9,  
"category": "Normal weight"  
}
```

## Input Validation & Error Responses

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- Weight and height must be positive numbers.
- Missing or invalid parameters return a 400 Bad Request.

Example Error:

```
{  
  "error": "Height and weight must be positive numbers."  
}
```

## BMI Categories (WHO Standard)

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BMI Range	Category
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Below 18.5	Underweight
18.5 - 24.9	Normal weight
25.0 - 29.9	Overweight
30.0 and above	Obese

## Deployment

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Live API: <https://bmi-calculator-group2.vercel.app> (replace with actual link)

## Testing

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- Use Postman to test GET and POST routes
- Suggested test cases:
  - Valid inputs
  - Zero or negative height/weight
  - Missing fields