REST API

Contents

1. Install

Install using Docker

1. Copy the folder on your development directory.
2. Start Docker
3. Import 'harjoitus' image to Docker by giving command in CLI

   docker load -i <image location>\harjoitus.tar

4. Check that image is imported successfully to Docker by giving command in CLI

   docker image ls

5. Start API by giving command in CLI in the development directory and wait for while

   docker-compose up -d

6. Check that container is running

   docker container ls

Install when Docker is not used:

1. Copy 'harjoitus.php' in your development directory.

   Example in Linux: /var/www/html/

2. PHP version 7.4

2. How to use

API interface calculate areas of three different types of shapes.

1. Circle area calculation.

   GET /area/circle , Path parameter is radius of circle 'radius'.
   Example: /harjoitus.php/area/circle/13.6 , return format is JSON

   {

     "Area": 145.27,
     "Shape type": "Circle",
     "Radius": 13.6

   }

2. Square area calculation.

   GET /area/square , Query parameter is side of square 'side'.
   Example: /harjoitus.php/area/square?side=5.7 , return format is JSON

   ```
   {

      "Area": 32.49,
      "Shape type": "Square",
      "Side length": 5.7

   }
   ```

3. Rectangle area calculation.

   POST /area/rectangle , Body parametes are length of sides
        'side1' and 'side2' are in JSON format.
   Example: /harjoitus.php/area/rectangle , where JSON format:

   ```
   {

      "side1": 5.7,
      "side2": 7.9

   }
   ```

   Return format is JSON

   ```
   {

      "Area": 45.03,
      "Shape type": "Rectangle",
      "Side one": 5.7,
      "Side two": 7.9

   }
   ```

3. Error messages

1. Given shape is not support or misspelling (404 Not Found):

   ```
   {

      "status": "Not Found",
      "description": "Given shape is misspelling or it is not supported"

   }
   ```

2. Radius of circle is not given (400 Bad Request):

```
{

    "status": "Bad Request ",
    "description": "Radius is missing or it is not ok"

}
```

3. Square side parameter missing or it is misspelling (400 Bad Request):

```
{

    "status": "Bad Request ",
    "description": "Side parameter missing"

}
```

4. Square side length is missing (400 Bad Request):

```
{

    "status": "Bad Request",
    "description": "Side value is missing or it is not ok"

}
```

5. Rectangle side parameter(s) and/or values missing (400 Bad Request):

```
{

    "status": "Bad Request ",
    "description": "Side one or Side two are missing or not ok"

}
```