

## Exercise 1

### 1. GET / POST methods + JSON. (3p)

Create the WSGI application with allstudents variable holding the data  
app – flask applikaatio  
allstudents

```
from flask import Flask, request, jsonify, make_response

app = Flask(__name__)

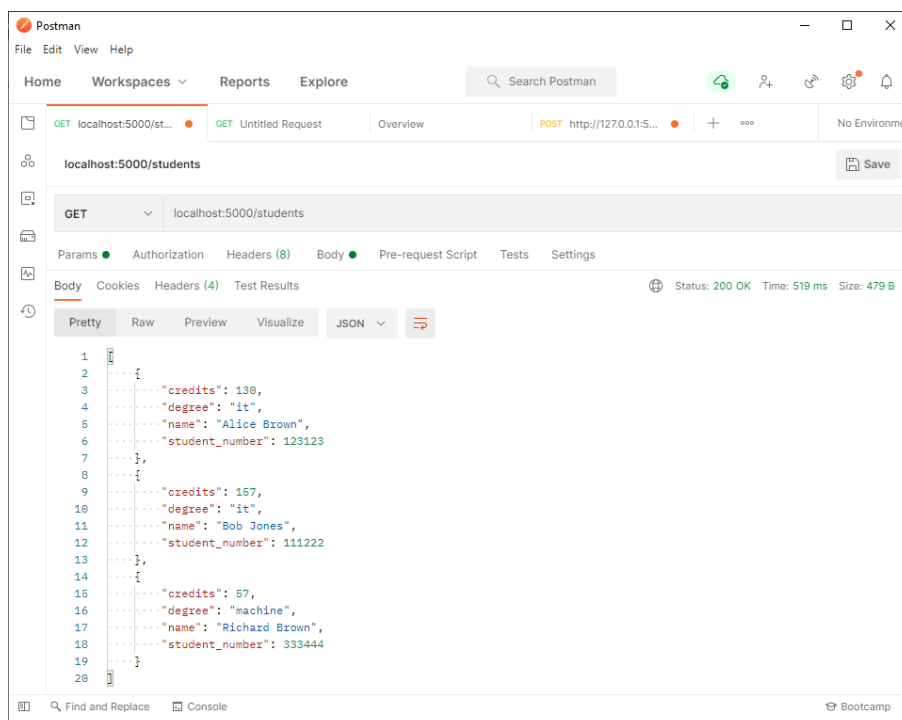
allstudents = [
    {
        "student_number": 123123,
        "name": "Alice Brown",
        "credits": 130,
        "degree": "it"
    },
    {
        "student_number": 111222,
        "name": "Bob Jones",
        "credits": 157,
        "degree": "it"
    },
    {
        "student_number": 333444,
        "name": "Richard Brown",
        "credits": 57,
        "degree": "machine"
    }
]
```

Implement the following API and test the api routes with POSTMAN

#### a. Method: GET

Route: /students

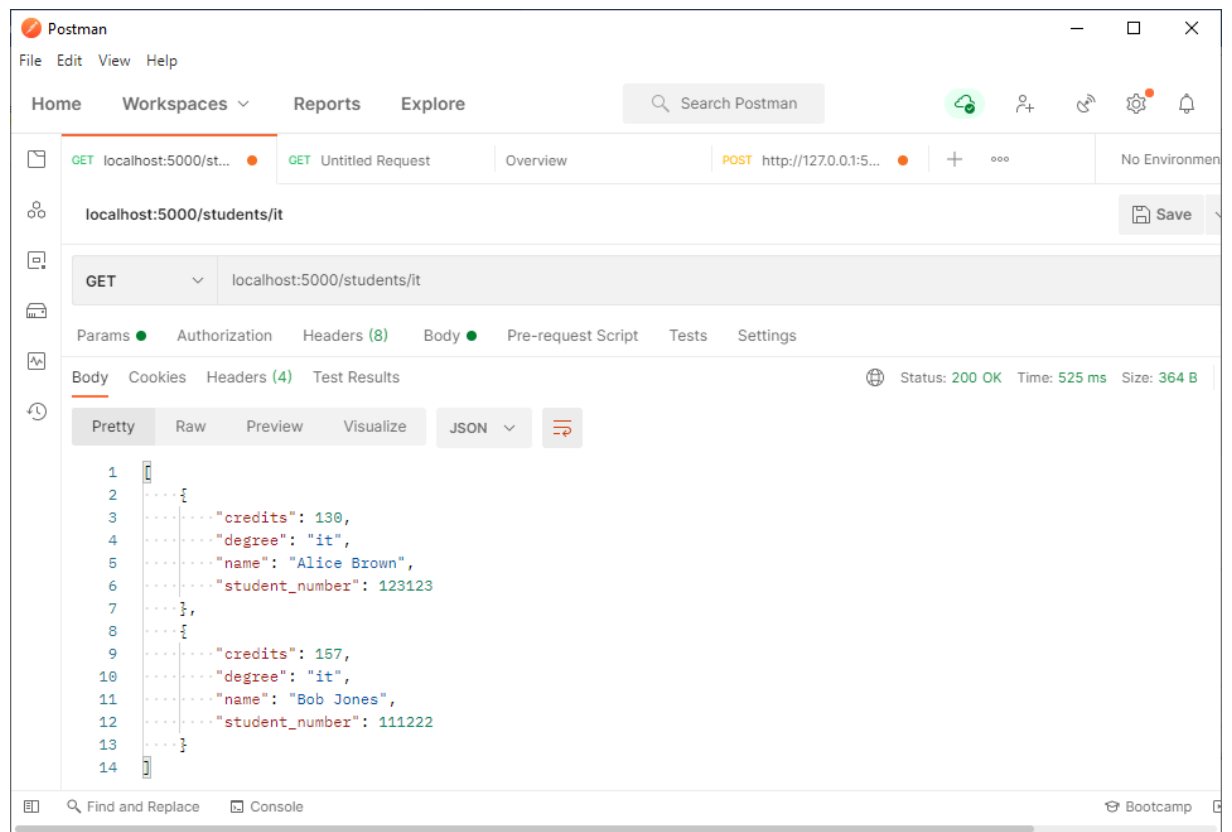
Response: return all the students in json format, status code is 200.



b. Method: GET

Route: /students/<degree>

Response: Returns the students whose degree matches with the parameter



c. Method: POST

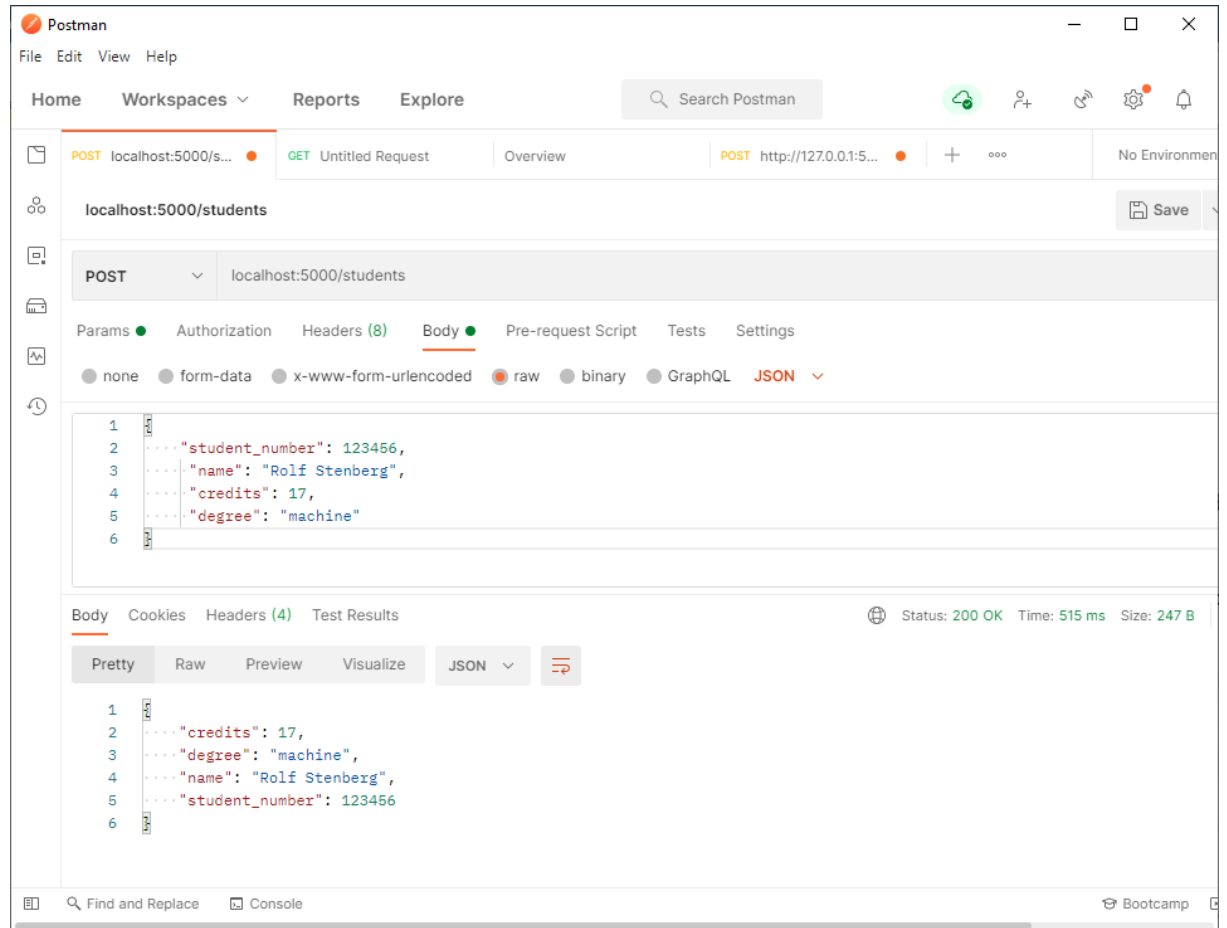
Route: /students

Data: Send the json data in request body

If the data is not according to json format return the error message with status code 400.

“Request must contain data in json format”

Otherwise the student should be added to the list and the added student is returned in the response with status code 200



2. Create the similar form as below:

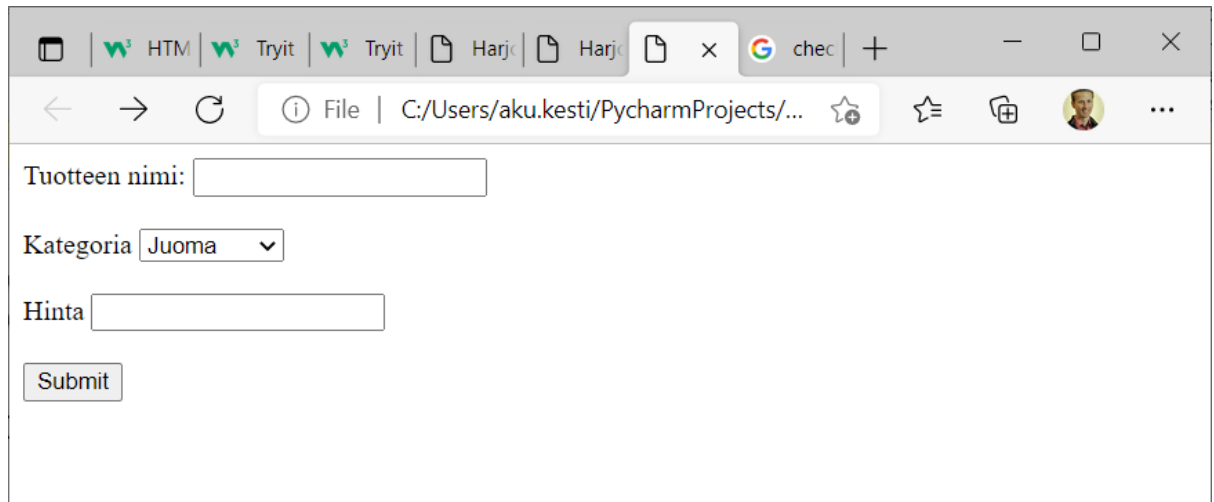
Tuotteen nimi = Product name

Kategoria = Category

Hinta = Price

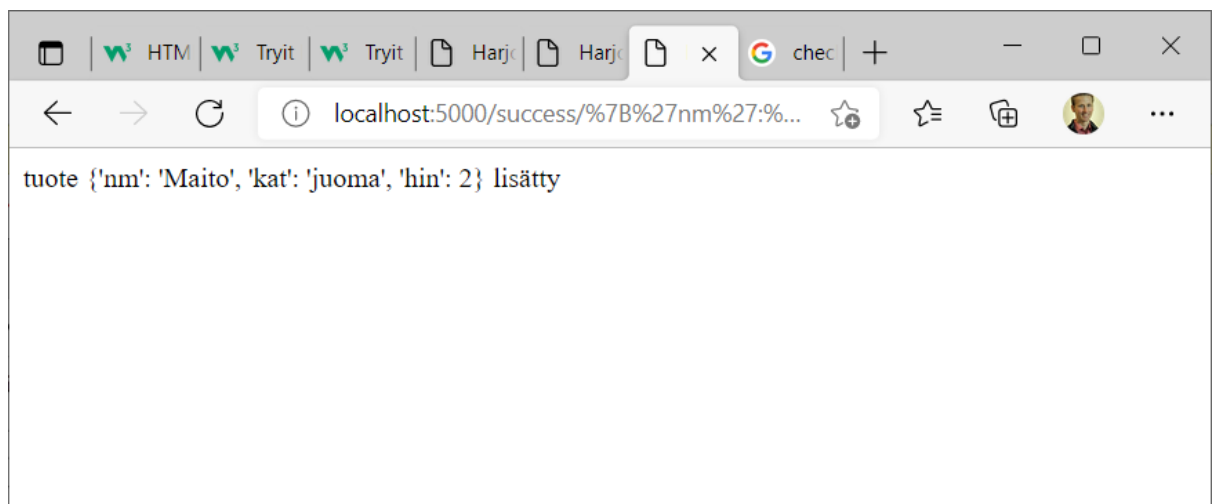
If everything goes fine show the product added as in the figure 2.

If name or price is not given then show the error message like in figure 3. (MAX 2p)



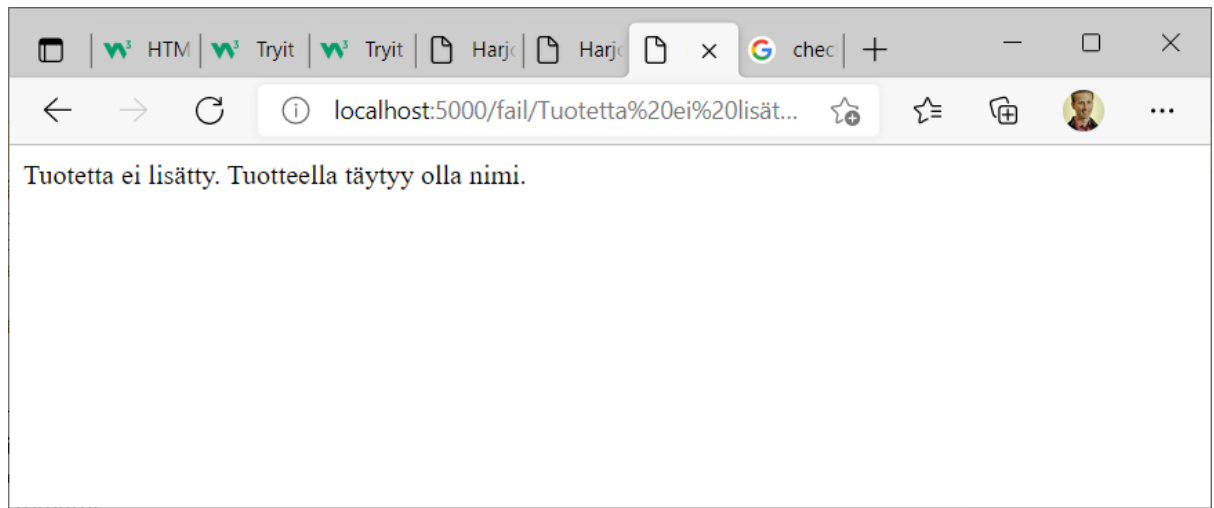
The screenshot shows a web browser window with a form for adding a product. The form has three input fields: "Tuotteen nimi:" (Product name), "Kategoria" (Category) with a dropdown menu showing "Juoma", and "Hinta" (Price). Below the fields is a "Submit" button. The browser's address bar shows the file path "C:/Users/aku.kesti/PycharmProjects/..." and the page title is "chec".

Kuva 1



The screenshot shows a web browser window displaying a success message: "tuote {'nm': 'Maito', 'kat': 'juoma', 'hin': 2} lisätty". The browser's address bar shows the URL "localhost:5000/success/%7B%27nm%27:%...". The page title is "chec".

Kuva 2



Kuva 3