**CS405 Project 1 Report**

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**30933**

**Task 1: getChatGPTModelViewMatrix**

In task 1, ChatGPT is asked to calculate a matrix with a prompt given in the project files. The resulting matrix looks like:

metin, ekran görüntüsü, yazılım, yazı tipi içeren bir resim

Açıklama otomatik olarak oluşturuldu

And the transformation matrix looks like this:

ekran görüntüsü, dikdörtgen, kare, tasarım içeren bir resim

Açıklama otomatik olarak oluşturuldu

The skewed look of the cube is caused by the inability of ChatGPT to multiply matrices properly. ChatGPT just multiplies the numbers in the same place in a 4x4 matrix instead of going through the correct steps matrix multiplication.

**Task 2: getModelViewMatrix**

In task 2, the transformation matrix is calculated using the parameters given in the ChatGPT prompt by multiplying the matrices properly. The resulting code looks like this.

**metin, ekran görüntüsü içeren bir resim

Açıklama otomatik olarak oluşturuldu**

And the transformation matrix looks like this:

ekran görüntüsü, grafik, tasarım içeren bir resim

Açıklama otomatik olarak oluşturuldu

The main difference between the shapes in task 1 and task 2 is ChatGPT’s inability to properly multiply matrices. The wrong method for multiplying the matrices leads to a skewed look of the shape.

**Task 3: getPeriodicMovement**

In task 3, ChatGPT was asked to create an animation for the shape in task 2. A 10 second animation where in the first 5 seconds the shape is moved to another place and in the last 5 seconds it returns to its original position. The animation repeats infinitely. The resulting code looks like this:

metin, ekran görüntüsü, yazılım içeren bir resim

Açıklama otomatik olarak oluşturuldumetin, ekran görüntüsü, yazılım içeren bir resim

Açıklama otomatik olarak oluşturuldu

**Conclusion:**

ChatGPT was asked to create a transformation matrix using the parameters in the prompt and then using the same prompts are used to calculate the transformation matrix using the included functions in utils.js. The main difference in the resulted matrices is caused by ChatGPT multiplying matrices incorrectly. Task 3 was also done by ChatGPT and a 10 second animation was created.

**ChatGPT links:**

* **Task1 =** <https://chatgpt.com/share/670baf6d-b0dc-8006-8c24-434081e75168>
* **Task3 =** <https://chatgpt.com/share/670d80ef-1e98-8006-aea0-d9eb4fa64372>

**Github link:**

* <https://github.com/metekeremberk/CS405-Project-1>