Project Title: Dumb Stickman

Group Members:

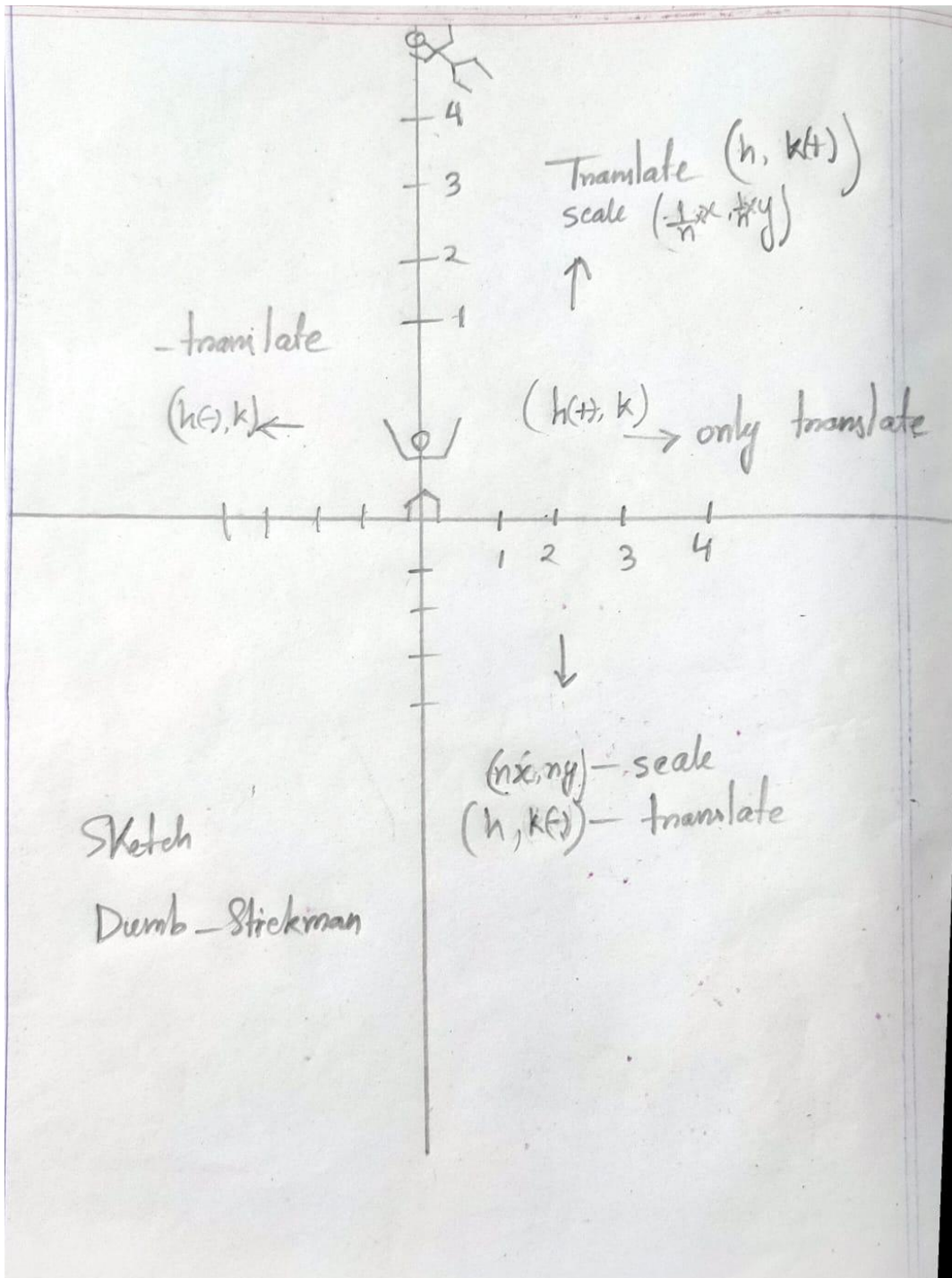**Name1:** Pritom Kumar Sarkar
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Name2: Nisharga Nirjan
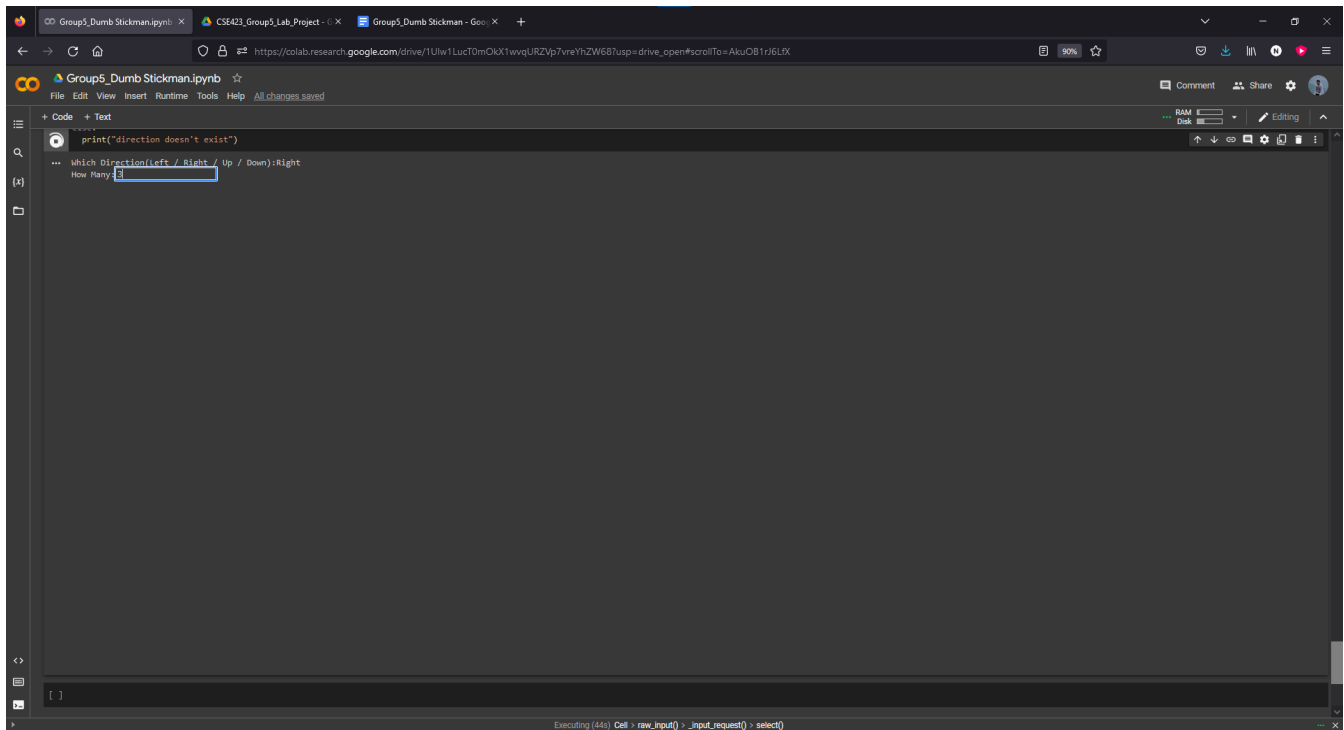**ID2:** 20101020

Introduction:

In this project, we have demonstrated the movements of a stickman in 4 directions. The stickman has been initially placed in the middle of the window. From the current position of the stickman, it will be able to move left, right, up and down. While moving up and down, its size will decrease or increase. 4 blocks from the center to any of the 4 directions has been considered as the limit of the stickman's movements. If it goes out of bound, the stickman's color will change and its angle will change momentarily. For this project, the concepts of Midpoint Line Algorithm, Midpoint Circle Algorithm & 3 forms of transformation(Translation, Scaling & Rotation) have been used.

Sketch Blueprint:

Translate $(h, k(+))$
scale $(-\frac{1}{n}x, *y)$
↑

−translate
$(h(-), k)$ ←

$(h(+), k)$ → only translate

1 2 3 4

↓

(nx, ny) − scale
$(h, k(-))$ − translate

Sketch

Dumb−Stickman

Output Screenshot:

1. Taking Inputs
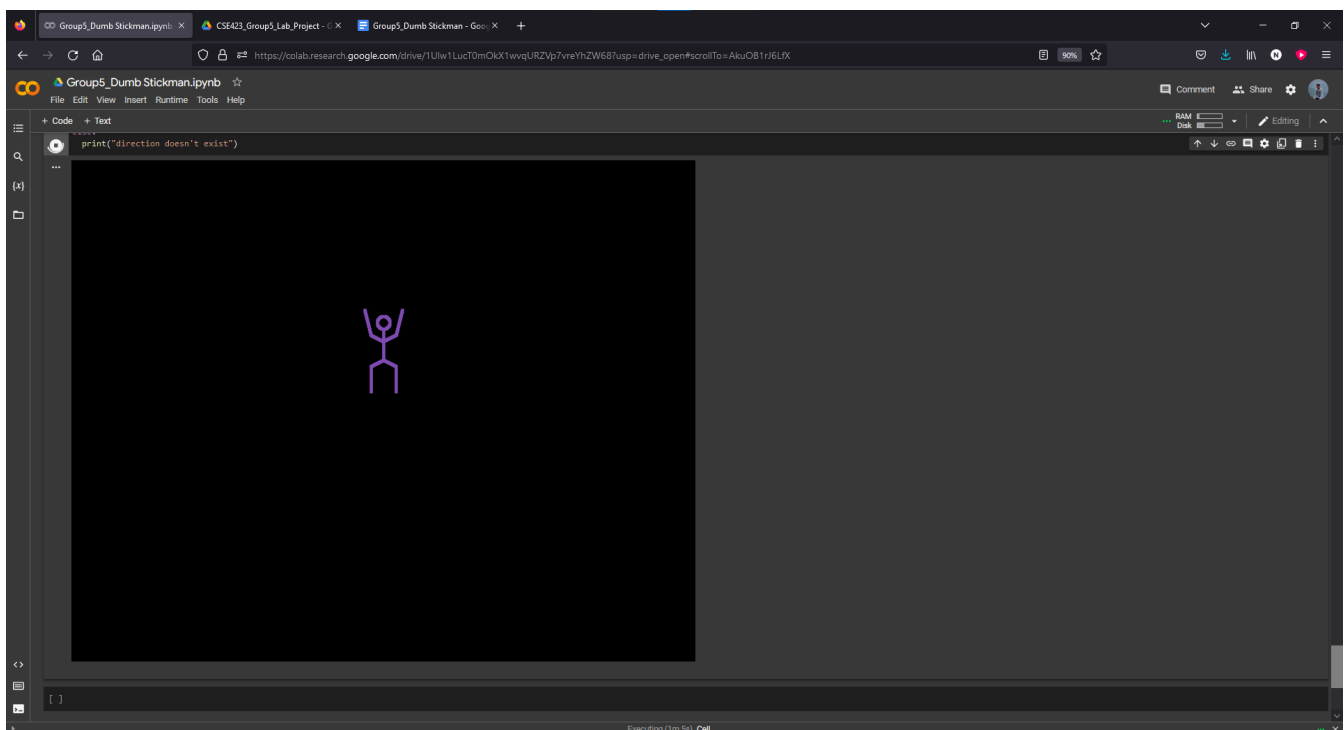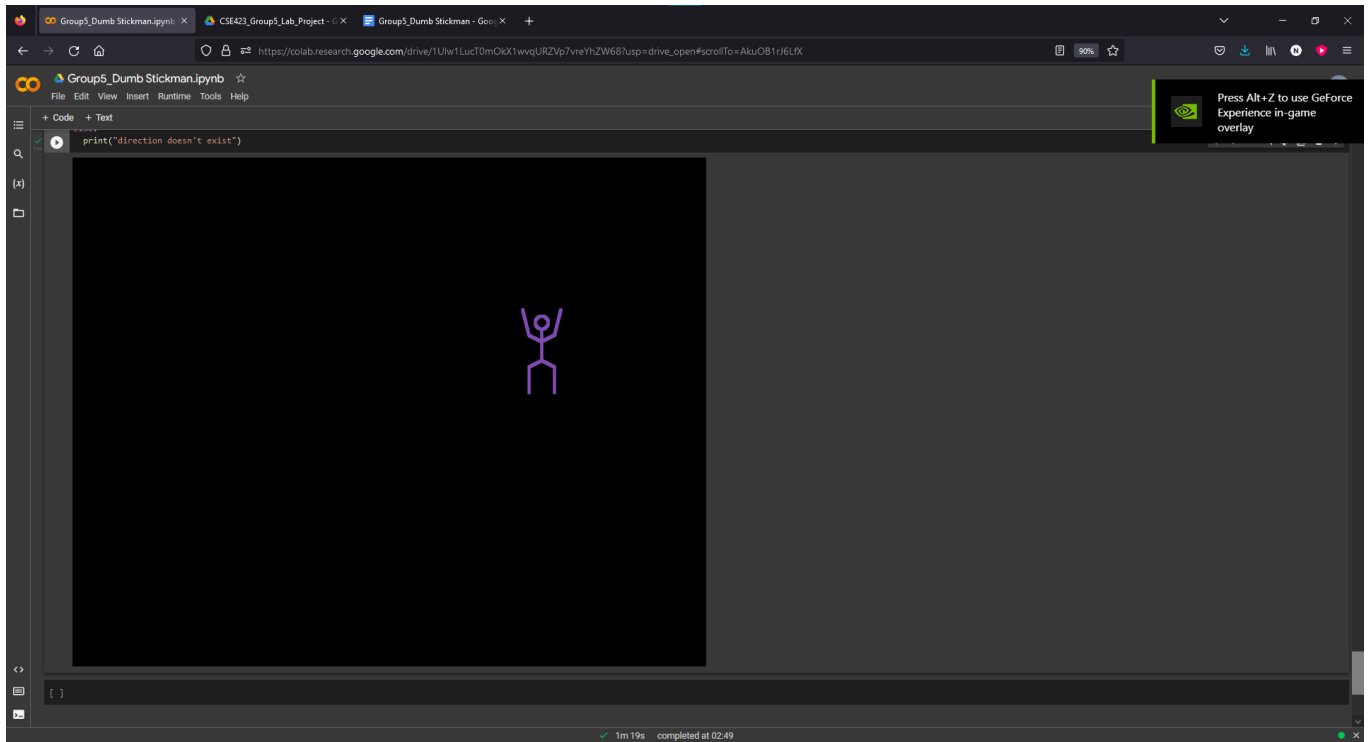

2. Initial Stickman

3. Moving Stickman(Ex: Right 3 blocks)

4. Handling Stickman going out of bound