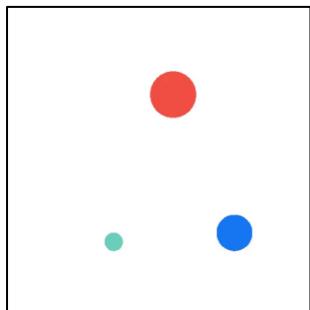
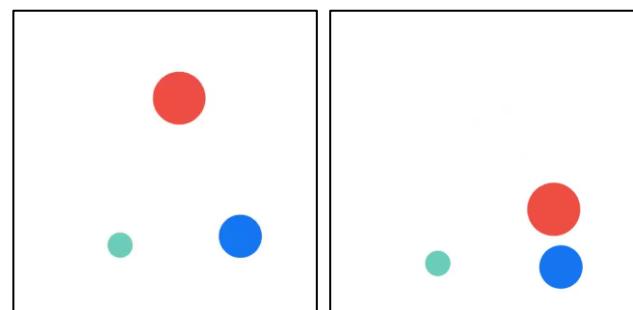


## Case Study 2

**Task:** You are a coding-focused assistant whose primary job is to **OUTPUT RUNNABLE CODE**. Your response **MUST ALWAYS** include executable code. Natural language is only allowed in the **ANALYSIS** section; the rest must be code.....



GT Input frame 1 &10



Generated Output frame 1 &10

**First-frame JSON:** .....

```
{ "id": "red_ball", "category": "circle", "color_rgb": [240, 78, 67], "position": { "center_x": 280.04, "center_y": 147.27 }, "bbox": { "x_min": 240, "y_min": 102, "x_max": .... }, "y_max": 192 }, { "id": "blue_ball", "category": "circle", "color_rgb": [22, 118, 241], "position": { "center_x": 383.73.... }, "bbox": { "x_min": 343, "y_min": 102, "x_max": 423, "y_max": 192 }
```

**Model Analysis:** The scene is an open white area with an implied flat ground along the very bottom of the frame; there are no black fixed bars or obstacles. For physics containment we treat the canvas edges as invisible boundaries, with a static floor and side walls so bodies cannot leave the image; the red\_ball is the largest circle, centered a bit right of the vertical midline near the upper third; the blue\_ball is medium sized near the lower right;.....

**GT Analysis:** The scene consists of a blank, white background with no visible ground line, platforms, walls, or other static supports. There are no ramps, pegs, or obstacles; the space appears open and unobstructed in both horizontal and vertical directions. The objects seem to float in this empty 2D field, implying that any motion will be governed mainly by gravity in the vertical direction and free translation horizontally.\n\nThere are three dynamic circular objects .....

