

Nama : Miftahul Huda

POSTTEST 4

NIM : 2209106098

SOURCE CODE

```
float flamesize = 40;

boolean grow = true;

float rocketX = 250;

float rocketSpeed = 2.5;

float moonRotation = 0;


void setup() {
    size(500, 600);
    background(0);
    noStroke();
}


void draw() {
    background(0);

    fill(255);
    textSize(16);
    text("X: " + mouseX + " | Y: " + mouseY, 370, 30);
    textSize(20);
    text("Nama : Miftahul Huda", 10, 30);
    text("NIM : 2209106098", 10, 55);

    // Menggambar bulan dengan rotasi
    pushMatrix();
    translate(400, 100);
```

```
rotate(radians(moonRotation));  
fill(200, 200, 255);  
ellipse(0, 0, 130, 130);  
fill(180, 180, 230);  
ellipse(-20, -15, 20, 20);  
ellipse(30, -10, 15, 15);  
ellipse(-10, 25, 10, 10);  
popMatrix();
```

```
// Menggambar roket
```

```
pushMatrix();  
translate(rocketX, 0);  
fill(200);  
rect(-30, 300, 60, 150, 10);  
fill(255, 0, 0);  
triangle(0, 240, -32, 310, 33, 310);  
fill(0, 100, 255);  
ellipse(0, 350, 40, 40);  
fill(255);  
ellipse(0, 350, 25, 25);  
fill(150);  
triangle(-30, 450, -30, 400, -80, 450);  
triangle(30, 450, 30, 400, 80, 450);  
fill(120);  
rect(-20, 450, 40, 20);  
popMatrix();
```

```
// Api roket dengan scaling
```

```
pushMatrix();
translate(rocketX, 470);
scale(1, flamesize / 40);
fill(255, 140, 0);
triangle(-20, 0, 20, 0, 0, flamesize);
fill(255, 255, 0);
triangle(-15, 0, 15, 0, 0, flamesize);
popMatrix();
```

```
// Menggambar bintang
```

```
for (int i = 0; i < 10; i++) {
    fill(255);
    ellipse(random(width), random(height), 3, 3);
}
```

```
// Gerakkan roket bolak-balik
```

```
rocketX += rocketSpeed;
if (rocketX > width - 200 || rocketX < 200) {
    rocketSpeed *= -1;
}
```

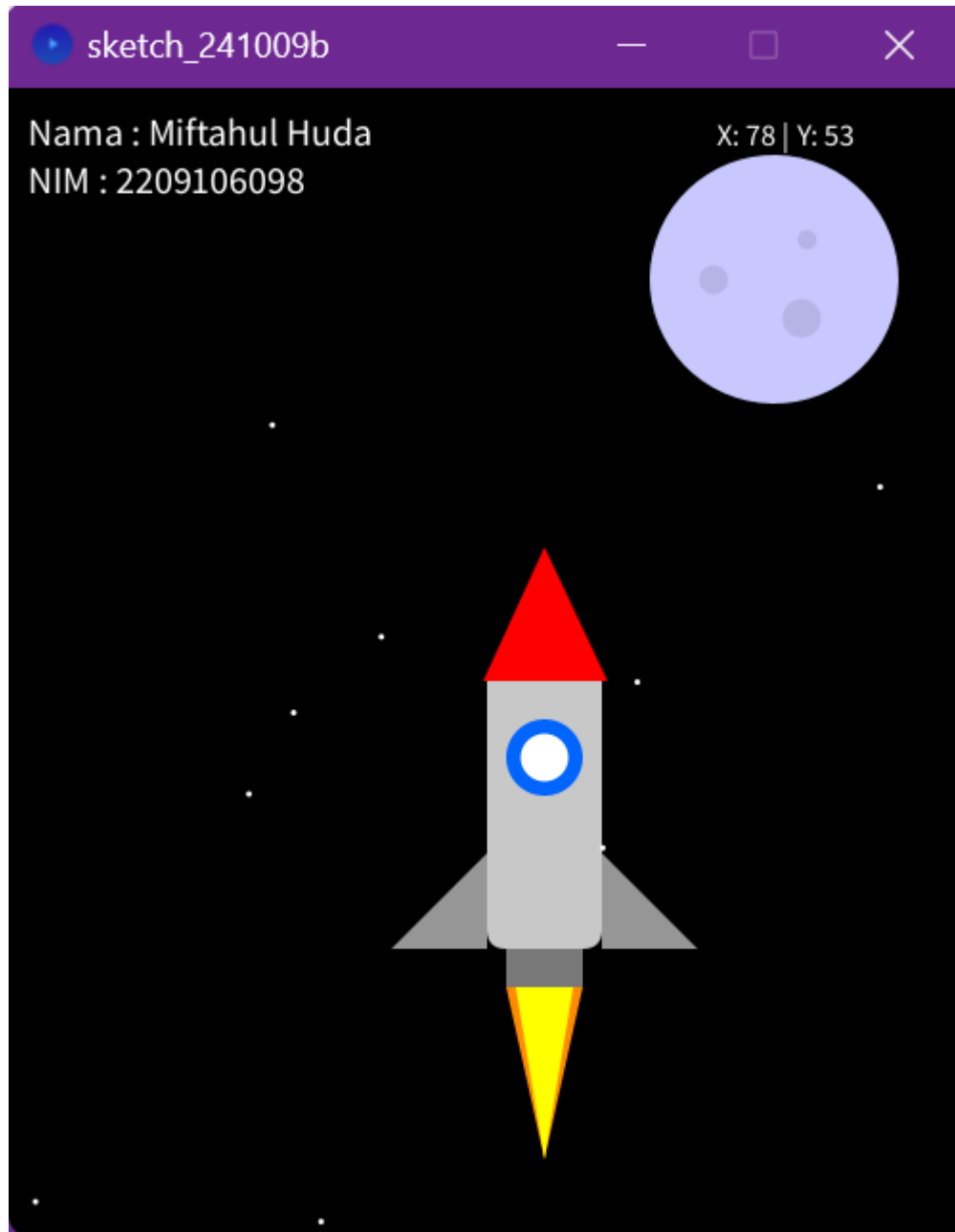
```
// Animasi api
```

```
flamesize = grow ? flamesize + 1 : flamesize - 1;
if (flamesize > 60 || flamesize < 40) {
    grow = !grow;
}
```

```
// Rotasi bulan
```

```
moonRotation = (moonRotation + 1) % 360;  
}
```

SCREENSHOT



DEMONSTRASI

<https://drive.google.com/file/d/1EA9ScNCBMX79nDv1gdgwB7my57ldVoQm/view?usp=sharing>