```
// ******************
// createButton()

let button;

function setup() {
  createCanvas(500, 500);

  background(0);

  button = createButton('click me');
  button.position(50, 50);
  button.mousePressed(changeBG);
  button.style("width", "300px");
  button.style("height", "300px");

}

// function draw() {
//   background(0);
//   //changeBG();
// }

function changeBG() {
  let val = random(255);
  background(val, 0, 0);
}
```

```
// ******************
// 키보드 인터랙션

let drawRect = true;

function setup() {
  createCanvas(400, 400);
}

function draw() {
  background(220);

  if (drawRect == true) {
    fill(255, 0, 0);
    rect(0, 0, 200, 200);
  } else {
    fill(0, 0, 255);
```

```
    ellipse(0, 0, 300, 300);
  }
}

function keyPressed() {
  // 스페이스바 누를 때마다
  if (key == ' ') {
    drawRect = !drawRect;
    /*if (drawRect == true) {
      drawRect = false;
    } else {
      drawRect = true;
    }*/
  }
}


// ******************
// 시간, 루핑, 모듈로

function setup() {
  createCanvas(400, 400);
}

function draw() {
  background(220);

  let sec = (millis() / 1000) % 10;
  // console.log(sec);
  if (sec > 0 && sec < 4) {
      fill(0, 0, 255);
    ellipse(width / 2, height / 2, 300, 300);
  }

  // if (millis() > 2000 && millis() < 5000) {
  //   fill(0, 0, 255);
  //   ellipse(width / 2, height / 2, 300, 300);
  // }
}




// ******************
// Bouncing Rect

let rectX = 0;
let speedX = 1.5;
let colorVal = 0;
let colorSpeed = 3.5;
```

```
function setup() {
  createCanvas(400, 400);
}

function draw() {
  background(220);

  fill(colorVal, 0, 0);
  rect(rectX, height / 2, 100, 100);

  rectX += speedX;
  if (rectX < 0 || rectX > width - 100) {
    speedX = speedX * -1;
  }

  colorVal += colorSpeed;
  if (colorVal < 0 || colorVal >= 255) {
    colorSpeed = colorSpeed * -1;
  }
}



// ******************
// Change rect's color with mouse click

let rectColor;
let rectX;
let rectY;

function setup() {
  createCanvas(400, 400);

  rectColor = color(255, 0, 0);
  rectX = 0;
  rectY = 0;
}

function draw() {
  background(220);

  //fill(255, 0, 0);
  fill(rectColor);
  rect(rectX, rectY, 100, 100);
}

function mousePressed() {
  rectColor = color(random(255), random(255), random(255));
  rectX = random(width);
```

```
  rectY = random(height);
}
```

```
// ******************
// 확률

let randomVal;

function setup() {
  createCanvas(400, 400);

  randomVal = random(0, 100);
}

function draw() {
  background(220);

  if (randomVal < 30) {
    rect(0, 0, 300, 300);
  }
}
```