```
//Abby's Bitmoji
 var bitmojiHead = function(headX,headY,headH)
{
var ratio = headH/179;

fill(115, 74, 54);
rect(headX+(ratio*28),headY+ratio*61,ratio*50,ratio*179); //hair
rect(headX+ratio*164,headY+ratio*61,ratio*50,ratio*179);

noStroke();
fill(242, 217, 194);
quad(headX+ratio*80,headY+ratio*240,headX+ratio*200,headY+ratio*240,headX+ratio*260,headY+ra
tio*260,headX+ratio*60,headY+ratio*270); //shoulders
ellipse(headX+ratio*120,headY+ratio*140,ratio*150,ratio*200); //head
rect(headX+ratio*80,headY+ratio*146,ratio*100,ratio*100); //neck


stroke(168, 168, 168);
fill(224, 220, 220);
ellipse(headX+ratio*40,headY+ratio*138,ratio*50,ratio*70); //headphones
ellipse(headX+ratio*203,headY+ratio*138,ratio*50,ratio*70);
rect(headX+ratio*25,headY+ratio*45,ratio*20,ratio*95);
rect(headX+ratio*195,headY+ratio*45,ratio*20,ratio*95);

noStroke();
fill(115, 74, 54);
rect(headX+ratio*85,headY+ratio*110,ratio*20,ratio*5);
rect(headX+ratio*135,headY+ratio*110,ratio*20,ratio*5);
triangle(headX+ratio*67,headY+ratio*125,headX+ratio*89,headY+ratio*113,headX+ratio*84,headY+ra
tio*110); //left eyebrow
triangle(headX+ratio*154,headY+ratio*115,headX+ratio*174,headY+ratio*125,headX+ratio*155,head
Y+ratio*110); //right eyebrow

fill(255, 255, 255);
stroke(51, 32, 21);
ellipse(headX+ratio*90,headY+ratio*130,ratio*30,ratio*10); //left eye
ellipse(headX+ratio*150,headY+ratio*130,ratio*30,ratio*10); //right eye
fill(144, 200, 245);
ellipse(headX+ratio*90,headY+ratio*130,ratio*10,ratio*10); //left iris
ellipse(headX+ratio*150,headY+ratio*130,ratio*10,ratio*10); //right iris

strokeWeight(ratio*2);
point(headX+ratio*90,headY+ratio*130); //pupils
point(headX+ratio*150,headY+ratio*130);
```

```
stroke(148, 77, 111);
fill(235, 153, 190);
ellipse(headX+ratio*122,headY+ratio*190,ratio*30,ratio*15); //lips
line(headX+ratio*108,headY+ratio*190,headX+ratio*136,headY+ratio*190);

stroke(184, 159, 134); //nose
line(headX+ratio*109,headY+ratio*163,headX+ratio*124,headY+ratio*138);
noFill();
bezier(headX+ratio*109,headY+ratio*163,headX+ratio*109,headY+ratio*163,headX+ratio*113,headY
+ratio*177,headX+ratio*127,headY+ratio*163);

noStroke();
fill(115, 74, 54);
bezier(headX+ratio*120,headY+ratio*45,headX+ratio*284,headY+ratio*74,headX+ratio*140,headY+ra
tio*271,headX+ratio*196,headY+ratio*175); //bangs hair
bezier(headX+ratio*120,headY+ratio*45,headX+ratio*200,headY+ratio*70,headX+ratio*40,headY+rati
o*-38,headX+ratio*46,headY+ratio*150);

stroke(168,168,168);
fill(224, 220, 220);
rect(headX+ratio*25,headY+ratio*39,ratio*190,ratio*22); //top of headphones

};

var bitmojiBody = function(bodyX,bodyY,bodyH)

{
var ratio=bodyH/179;

noStroke();
fill(115, 74, 54);
ellipse(bodyX+ratio*180,bodyY+ratio*220,ratio*10,ratio*38); //neck indent

fill(166, 161, 161);
arc(bodyX+ratio*153,bodyY+ratio*265,ratio*220,ratio*55,-48,225); //shirt

fill(8, 4, 4);
textSize(ratio*30);
text("AC",bodyX+ratio*174,bodyY+ratio*283);
};

var Bitmoji = function(X,Y,H)
{
```

```
 bitmojiHead(X,Y,H);
 bitmojiBody(X,Y,H);

};

//Ashly's Bitmoji
var drawBitmojiBody = function (x,y,sizeScale) {

    fill(232, 240, 221);
    noStroke();
    rect(x + 137 * sizeScale / 8, y + 191 * sizeScale  / 8, 102* sizeScale / 8, 115 * sizeScale / 8); //torso
    rect(x + 124 * sizeScale / 8, y + 202 * sizeScale / 8, 35 * sizeScale / 8, 152 * sizeScale / 8); //left
arm
    rect(x + 220 * sizeScale / 8, y + 200 * sizeScale / 8, 35 * sizeScale / 8, 152 * sizeScale / 8); //right
arm
    fill(0, 0, 0);
    textSize(41 * sizeScale / 8 );
    text("MR",x + 158 * sizeScale / 8, y + 281 * sizeScale / 8); //shirt label
};

var drawBitmojiHead = function (x,y,height) {
    var sizeScale = height/8;
    noStroke();
    fill(255,219,172);
    ellipse(x + 193 * sizeScale, y + 161* sizeScale, 114* sizeScale, 139* sizeScale); //head
    fill(255, 255, 255);
    fill(64, 47, 47); //brown hair
    rect(x + 126 * sizeScale, y + 119 * sizeScale, 23 * sizeScale, 135 * sizeScale); //left side hair
    rect(x + 232 * sizeScale, y + 110 * sizeScale, 23 * sizeScale, 145 * sizeScale); //right side hair
    fill(255,219,172);
    ellipse(x + 144 * sizeScale, y + 158 * sizeScale, 15 * sizeScale, 16 * sizeScale); //left ear
    ellipse(x + 236 * sizeScale, y + 158 * sizeScale, 15 * sizeScale, 16 * sizeScale); //right ear
    fill(245, 201, 5);
    ellipse(x + 145 * sizeScale, y + 166 * sizeScale, 9* sizeScale, 14* sizeScale); //left earing
    ellipse(x + 235* sizeScale, y + 166* sizeScale, 9* sizeScale, 14* sizeScale); //right earing
    fill(227, 195, 195);
    ellipse(x + 193* sizeScale, y + 113* sizeScale, 143* sizeScale, 58 * sizeScale); //hat
    ellipse(x + 197* sizeScale, y + 62* sizeScale, 69* sizeScale, 56* sizeScale); //top hat
    stroke(0,0,0);
    fill(255,219,172);
    stroke(186, 98, 186);
    rect(x + 159 * sizeScale, y + 146* sizeScale, 24* sizeScale, 20* sizeScale); //left side glasses
    rect(x + 198* sizeScale, y + 146* sizeScale, 24* sizeScale, 20* sizeScale); //right side glasses
```

```
    line(x + 198 * sizeScale, y + 157 * sizeScale, x + 183 * sizeScale, y + 157* sizeScale); //glasses
nose bridge
    line(x + 148 * sizeScale, y + 154 * sizeScale, x + 159 * sizeScale, y + 157* sizeScale); // left side
line glasses
    line(x + 234 * sizeScale, y + 149* sizeScale, x + 222* sizeScale, y + 157* sizeScale); //right side
line glasses
    fill(0, 0, 0);
    noStroke();
    ellipse(x + 172* sizeScale, y + 156* sizeScale, 12* sizeScale, 8* sizeScale); //left eye
    ellipse(x + 210* sizeScale, y + 156* sizeScale, 12* sizeScale , 8* sizeScale); //right eye
    fill(255,219,172);
    stroke(0, 0, 0);
    bezier(x + 189* sizeScale,y + 173* sizeScale, x + 200* sizeScale, y + 182* sizeScale, x + 211*
sizeScale, y + 196* sizeScale, x + 189* sizeScale, y + 192* sizeScale); //nose
    fill(255, 255, 255); //teeth
    arc(x + 193* sizeScale, y + 204* sizeScale, 41 * sizeScale,17* sizeScale,-7, 185); //mouth

};

var drawBitmoji = function(x,y,sizeScale) {
    drawBitmojiBody(x,y,sizeScale);
    drawBitmojiHead(x,y,sizeScale);
};

//Button object + method
var Button = function(config) {
    this.x = config.x || 0;
    this.y = config.y || 0;
    this.width = config.width || 150;
    this.height = config.height || 50;
    this.bgcolor = config.bgcolor || color(0, 234, 255);
    this.label = config.label || "Click";
    this.onClick = config.onClick || function() {};
};

Button.prototype.draw = function() {
    fill(this.bgcolor);
    rect(this.x, this.y, this.width, this.height, 5);
    fill(0, 0, 0);
    textSize(19);
    textAlign(LEFT, TOP);
    text(this.label, this.x+10, this.y+this.height/4);
};
```

```
Button.prototype.isMouseInside = function() {
    return mouseX > this.x &&
           mouseX < (this.x + this.width) &&
           mouseY > this.y &&
           mouseY < (this.y + this.height);
};

Button.prototype.handleMouseClick = function() {
    if (this.isMouseInside()) {
        this.onClick();
    }
};

var currentScene = 0;
var timerStart = 0;
var peopleX = [];
var peopleY = [];
var bx = round(random(20,380));
var by = round(random(20,380));

//pushing random values into the location array of the Khan images
for (var i = 0; i < 100; i++) {
    peopleX.push(random(0,390));
    peopleY.push(random(0,390));
}

//Start button
var startButton = new Button ({
    x: 154,
    y: 226,
    width: 79,
    bgcolor: color(255, 0, 204),
    label: "PLAY",
    onClick: function()
    {
        currentScene = 1;
        timerStart = millis();
    }
});

mouseClicked = function(){
    if (currentScene ===0)
    {
        startButton.handleMouseClick();
```

```
    }
};

//splash screen
var splashScreen = function()
{
    if (currentScene === 0)
   {
    background(147, 168, 250);
    fill(255, 255, 255);
    textSize(25);
    text("Find our bitmojis", 105,140);
    textSize(14);
    text("By Abby Civiello and Ashly MR", 104,173);
    Bitmoji(90,41,50);
    drawBitmoji(190,3,3);
    startButton.draw();
   }
};

//black screen introducing level 1. should last for 1 second
var levelOne = function()
{
    if (currentScene === 1)
{
  background(0, 0, 0);
  textSize(30);
  fill(255, 255, 255);
  text("Level 1", 150,150);}
  if (millis() >= 1000)
  {
      currentScene = 2;
  }
};

//black screen introducing level 1. should last for 1 second
var levelTwo = function()
{
    if (currentScene === 3)
{
  background(0, 0, 0);
  textSize(30);
  fill(255, 255, 255);
  text("Level 2", 150,150);}
```

```
  if (millis() >= 1000)
  {
      currentScene = 4;
  }
};

// draw function containing all game screens (five total)
draw = function() {
var gameScreen1 = function()
{
if (currentScene === 2)
   {
    background(117, 234, 255);
    Bitmoji(bx,by,50);
   }
for (var i = 0; i <= 15; i++)
 {
 image((getImage("cute/CharacterCatGirl")),peopleX[i],peopleY[i]);
 image((getImage("cute/CharacterBoy")),peopleX[i]+peopleX[i],peopleY[i]+peopleY[i]);
 }
if (mouseIsPressed && mouseX > bx && mouseX < bx + 50 && mouseY > by && mouseY < by + 50)
    {
    currentScene = 3;   // when the player finds the bitmoji, the level increases
    timerStart = millis();
    }
};

var gameScreen2 = function()
{
    if (currentScene === 4)
   {
    background(117, 234, 255);
    Bitmoji(bx,by,50);
   }
for (var i = 0; i <= 25; i++)
 {
 image((getImage("cute/CharacterCatGirl")),peopleX[i],peopleY[i]);
 image((getImage("cute/CharacterBoy")),peopleX[i]+peopleX[i],peopleY[i]+peopleY[i]);
 }
};


if (currentScene === 0) {splashScreen();}
else if (currentScene ===1) {levelOne();}
```

```
else if ((millis() - timerStart) <= 1000) {levelOne();}
else if (currentScene ===2) {gameScreen1();}
else if (currentScene === 3) {levelTwo();}
else if ((millis() - timerStart) <= 1000) {levelTwo();}
else if (currentScene ===4) {gameScreen2();}
};
```