

# MAPS.TIWI

DEVELOPMENT BY:  
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ARNAV AGRAWAL

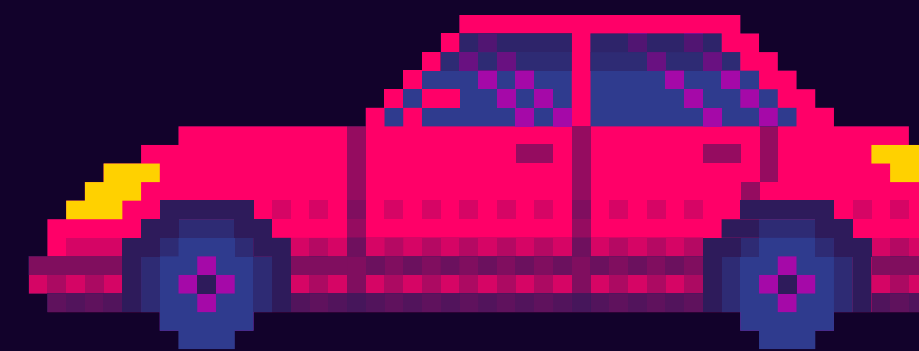
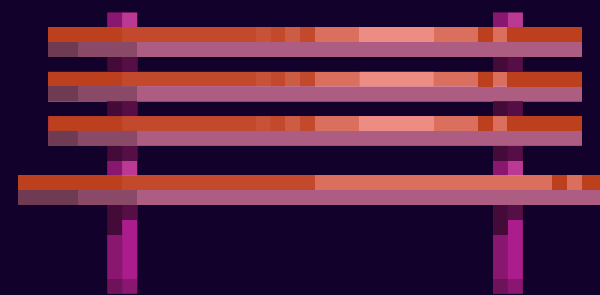


# INTRODUCTION

A ROGUELIKE CARD GAME, MADE  
AS COMPUTER WEB APPLICATION

PLAYERS TAKE ON THE ROLE OF  
A BARTENDER,  
PLAYERS MUST PIECE TOGETHER  
DETAILS ABOUT THEIR  
CUSTOMERS' TARGET DRINKS.

EARN POINTS BY STRATEGICALLY  
MIXING INGREDIENTS IN AN  
ALCHEMICAL FASHION

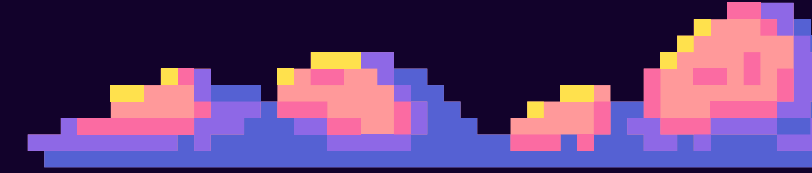
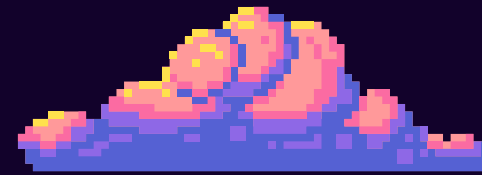


A pixel art illustration of a city skyline at night. The sky is dark blue with several stylized, colorful clouds in shades of orange, yellow, and pink. In the foreground, there are several tall buildings. On the left, a tall, thin building with a red and white checkered pattern. Next to it is a taller building with a red and white checkered pattern. To the right of the text, there is a building with a red roof and a red and white checkered pattern. In the background, there are more buildings of varying heights, some with red roofs. The overall style is retro and pixelated.

# INSPIRATION AND CONCEPT

DRAWING HEAVY INSPIRATION FROM BALATRO, WE AIMED TO BUILD A DECKBUILDING ROGUELIKE WITH THE THEME OF BARTENDING TO MAKE DRINKS. A DRINK DESCRIPTION IS GIVEN AND THE PLAYER MUST DRAW CARDS AND WHIP UP A DRINK TO SATISFACTION AND HENCE EARN PROFITS, THE GOAL WAS SIMPLY TO AIM FOR THE HIGHEST SCORE. ADDITIONALLY WE THOUGHT OF SECONDARY ELEMENTS WHERE THE PLAYER IS UNDERCOVER AS AN INFORMATION BROKER.

# INITIAL IDEAS AND EVOLUTION



01

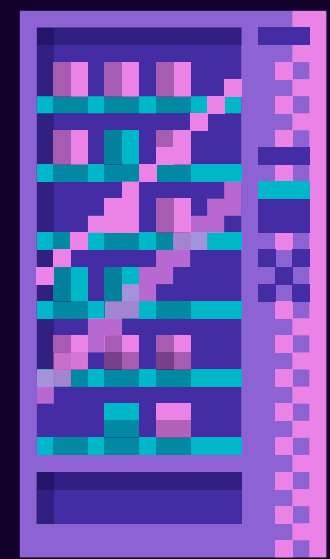
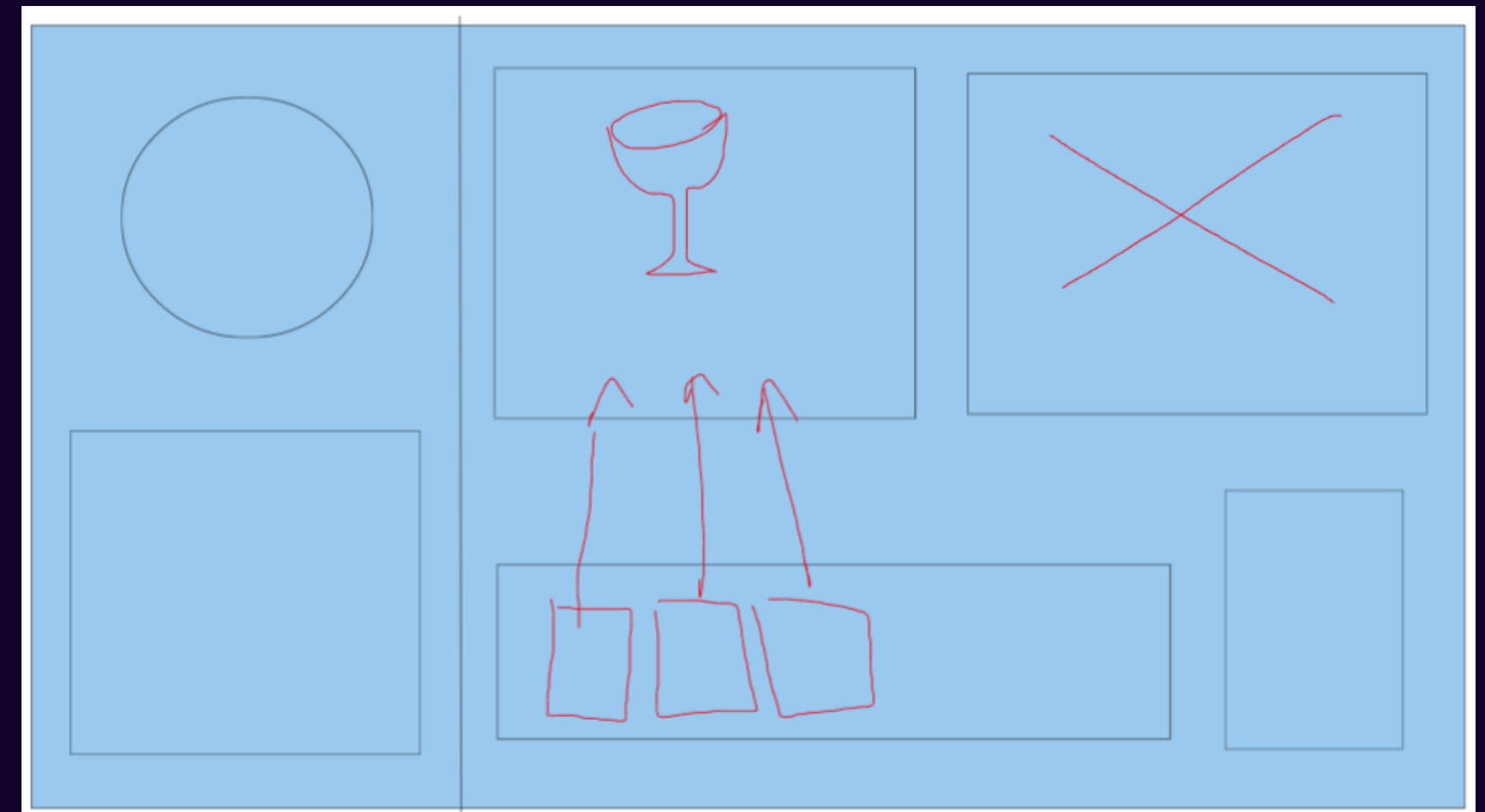
INGREDIENTS ARE AVAILABLE TO  
PLAYERS ON A DECK, PULLING A  
CARD COSTS SOME MONEY

02

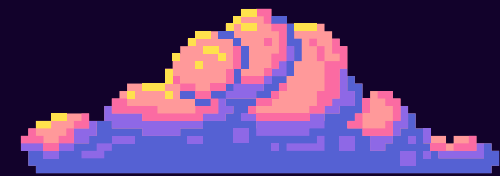
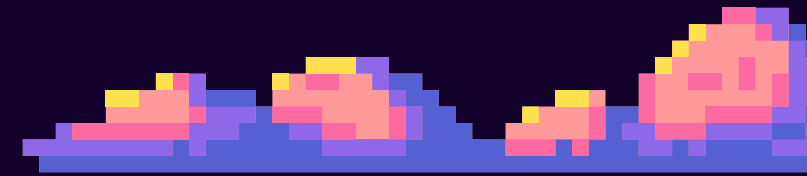
2 TIER MIXING WHERE YOU TOOK  
TWO INGREDIENTS TO MAKE  
ANOTHER SPECIAL ONE

03

CREATING SCORE  
CALCULATION METRICS  
FROM MULTIPLE  
PARAMETERS



# LEARNING AND DEVELOPMENT



01

## LEARNING BASICS OF LUA SCRIPTING

```
-- Main game loop
local stage = 1
while true do
    print("\n== Stage " .. stage .. " ==")
    local target = game_base:new("target", math.random(0,2), math.random(0,2), math.random(0,2), math.random(0,2))
    print(string.format("Target (hidden): sweet=%d, salty=%d, sour=%d, bitter=%d", target.sweet, target.salty, target.sour, target.bitter))
    local cleared = false
    for round = 1, 4 do
        print("\nStage " .. stage .. " - Round " .. round)
        local s, sa, so, b = get_user_mix()
        local starter = game_base:new("starter", s, sa, so, b)
        local score = starter:score_against(target)
        print(string.format("Your score: %.1f", score))
        if score > 150 then
            print("Score above 150! Moving to next stage.")
            cleared = true
            break
        end
    end
    if not cleared then
        print("Stage failed. Game over!")
        break
    end
    stage = stage + 1
end
```

02

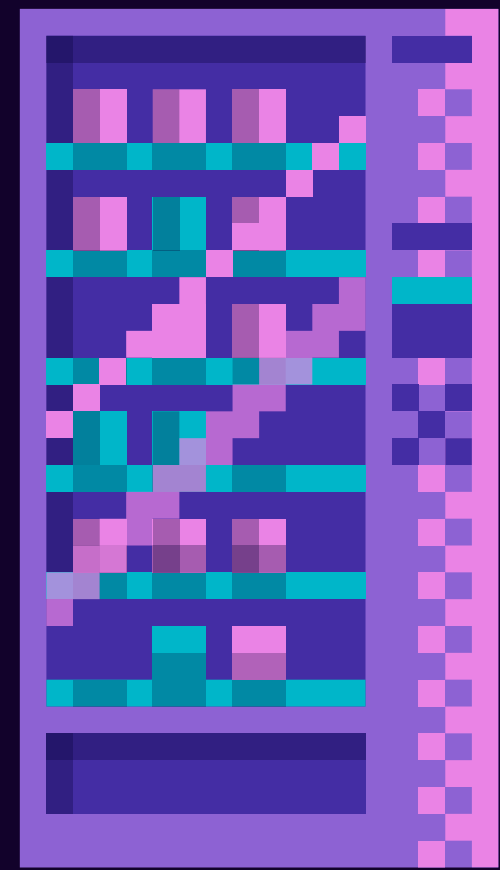
## UNDERSTANDING THE LOVE 2D FRAMEWORK

```
function serveDrink()
    if rawScore >= targetScore then
        print("You passed the target score!")
        ...
        -- Bonus multiplier for leftover tries
        if triesLeft > 0 then
            multiplier = multiplier + triesLeft
            print("Bonus! Multiplier increased by", triesLeft)
        end

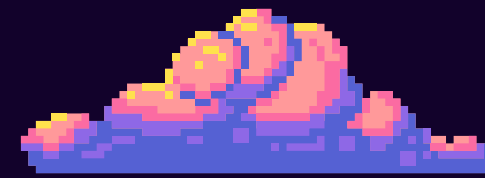
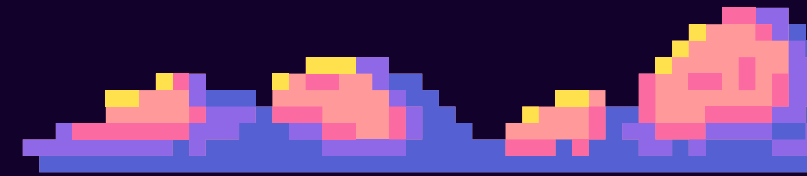
        -- Extra bonus if it's a perfect match
        if playerDrink:isExactMatch(targetDrink) then
            multiplier = multiplier + 2
            print("Perfect Match! Extra bonus!")
        end

        -- Move to next target
        targetDrink = generateRandomTarget()
        triesLeft = 4 -- Reset tries
        multiplier = multiplier - 1
    else
        triesLeft = triesLeft - 1
        if triesLeft == 0 then
            print("Out of tries! Reset multiplier!")
            multiplier = 1 -- Reset multiplier
            targetDrink = generateRandomTarget()
            triesLeft = 4
        else
            print("Try again! Tries left:", triesLeft)
        end
    end

    -- Reset drink after every serve
    for attr, _ in pairs(drink) do
        drink[attr] = 0
    end
end
```



# LEARNING AND DEVELOPMENT

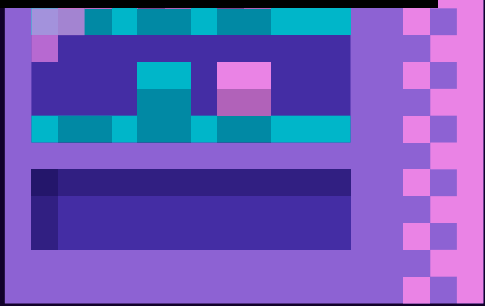
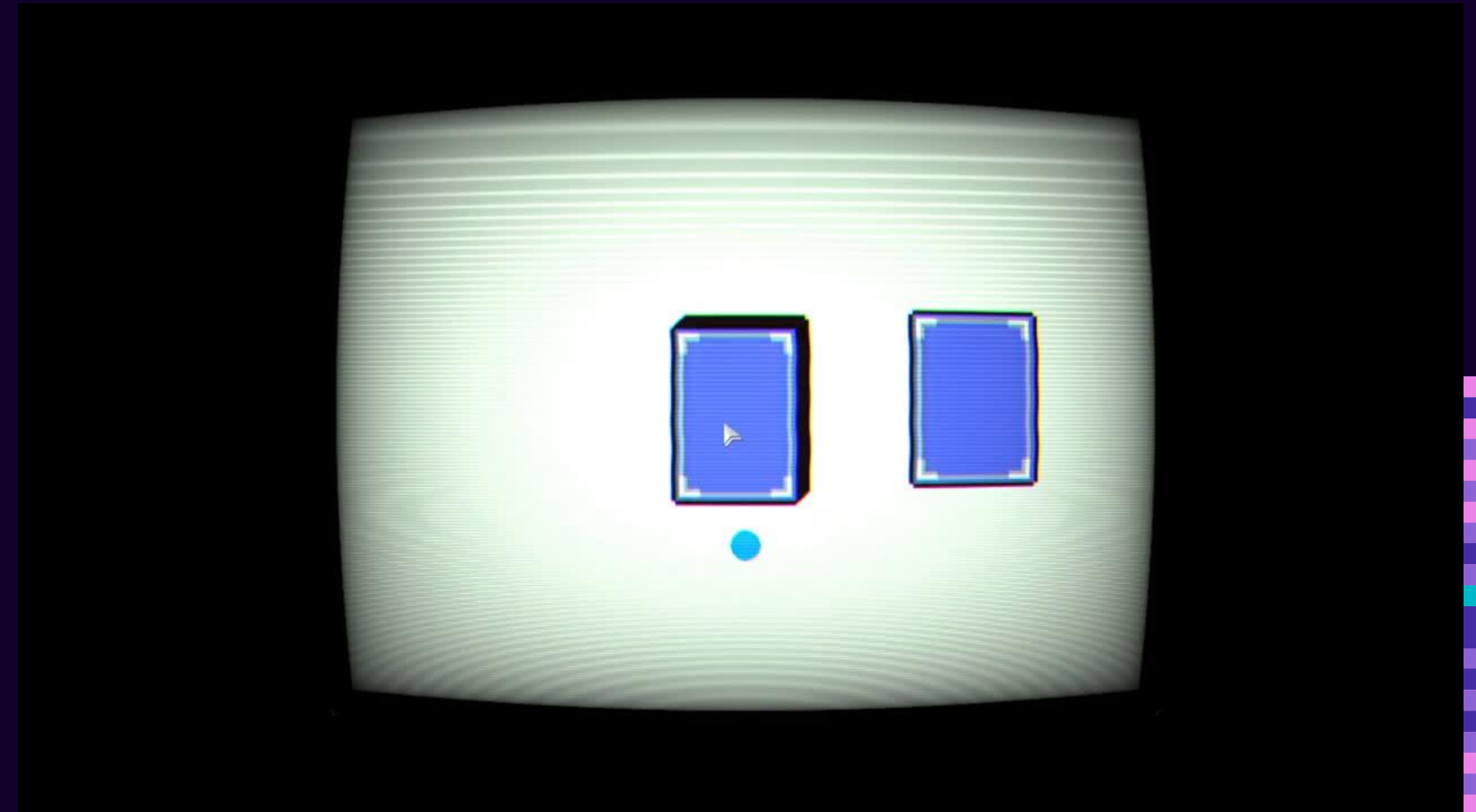


03

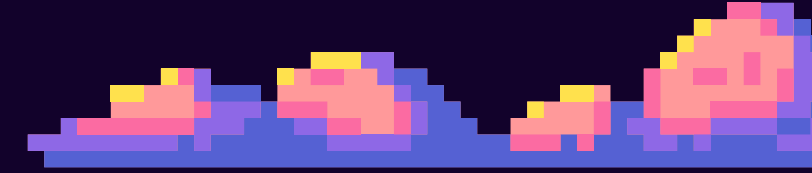
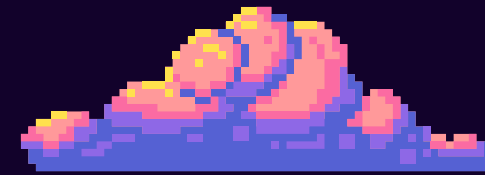
BALATRO CARD  
MOVEMENT

04

UNDERSTANDING THE  
LOVE 2D FRAMEWORK



# GAME MECHANICS



01

GAME TAKES PLAYS IN STAGES WHERE EACH STAGE CONSISTS OF 4 ROUNDS.

02

THE PLAYER HAS 4 CARDS VISIBLE. CARD ELEMENTS INCLUDE SOUR, SALTY, SWEET AND BITTERN.

03

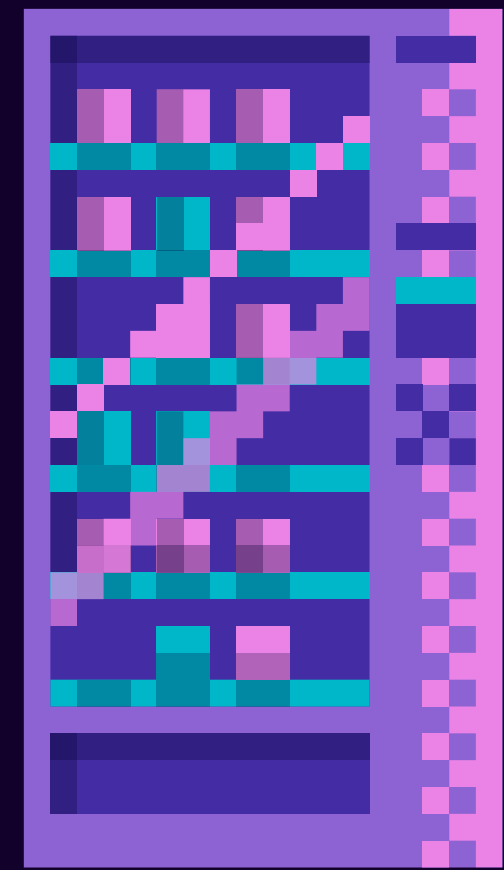
THE PLAYER MUST SELECT A LEVEL OF INTENSITY AND OBTAIN A SCORE

04

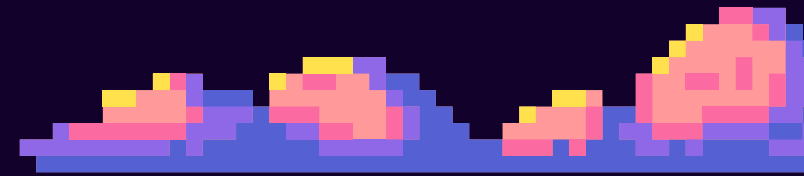
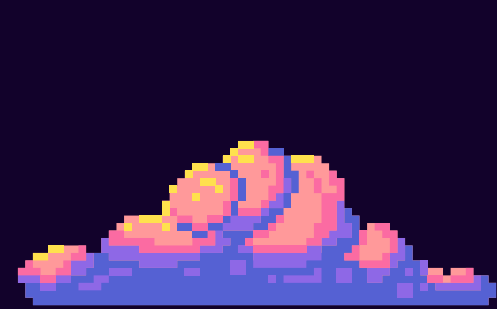
PASS THE REQUIRED SCORE AND MOVE ON TO THE NEXT LEVEL

05

FAILURE TO REACH MINIMUM SCORE IN 4 ROUNDS RESULTS IN GAME OVER



# TECHINICAL ACHIEVEMENTS



```
function love.draw()
  -- Step 1: Draw your game to gameCanvas (1600x900)
  love.graphics.setCanvas(gameCanvas)
  love.graphics.clear(0.2, 0.3, 0.4)

  -- Draw background image to fill the canvas
  if backgroundImage then
    local bgScaleX = gameCanvas.getWidth() / backgroundImage.getWidth()
    local bgScaleY = gameCanvas.getHeight() / backgroundImage.getHeight()
    love.graphics.draw(backgroundImage, 0, 0, 0, bgScaleX, bgScaleY)
  end

  local imageScale = 0.5
  for i, attr in ipairs(attributes) do
    local img = images[attr]
    local pos = imagePositions[attr]
    love.graphics.draw(img, pos.x, pos.y, 0, imageScale, imageScale)
  end

  local valueLabels = { [1] = "Low", [2] = "Medium", [3] = "High" }

  for _, button in ipairs(buttons) do
    love.graphics.rectangle("line", button.x, button.y, button.width, button.height)
    local label = valueLabels[button.value] or tostring(button.value)
    love.graphics.printf(label, button.x, button.y + 10, button.width, "center")
  end

  love.graphics.print("Current Drink:", 50, 30)
  local offsetY = 50
  for i, attr in ipairs(attributes) do
    love.graphics.print(attr .. ": " .. drink[attr], 50, offsetY)
    offsetY = offsetY + 20
  end

  if canServe() then
    love.graphics.rectangle("line", serveButton.x, serveButton.y, serveButton.width, serveButton.height)
    love.graphics.printf(serveButton.label, serveButton.x, serveButton.y + 10, serveButton.width, "center")
  end
end
```

=== Stage 1 ===

Target (hidden): sweet=1, salty=2, sour=0, bitter=2

Stage 1 - Round 1

Enter values for sweet, salty, sour, bitter (0/1/2, space separated):

→ 1 2 0 2

Your score: 200.0

Score above 150! Moving to next stage.

=== Stage 2 ===

Target (hidden): sweet=1, salty=2, sour=0, bitter=2

Stage 2 - Round 1

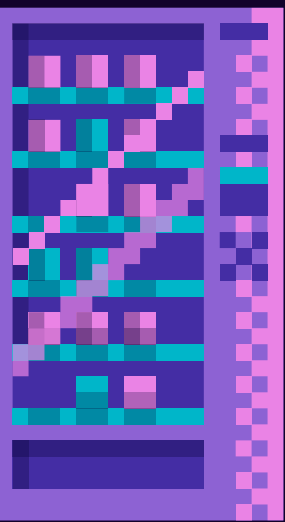
Enter values for sweet, salty, sour, bitter (0/1/2, space separated):

→ 1 0 0 0

Your score: 150.0

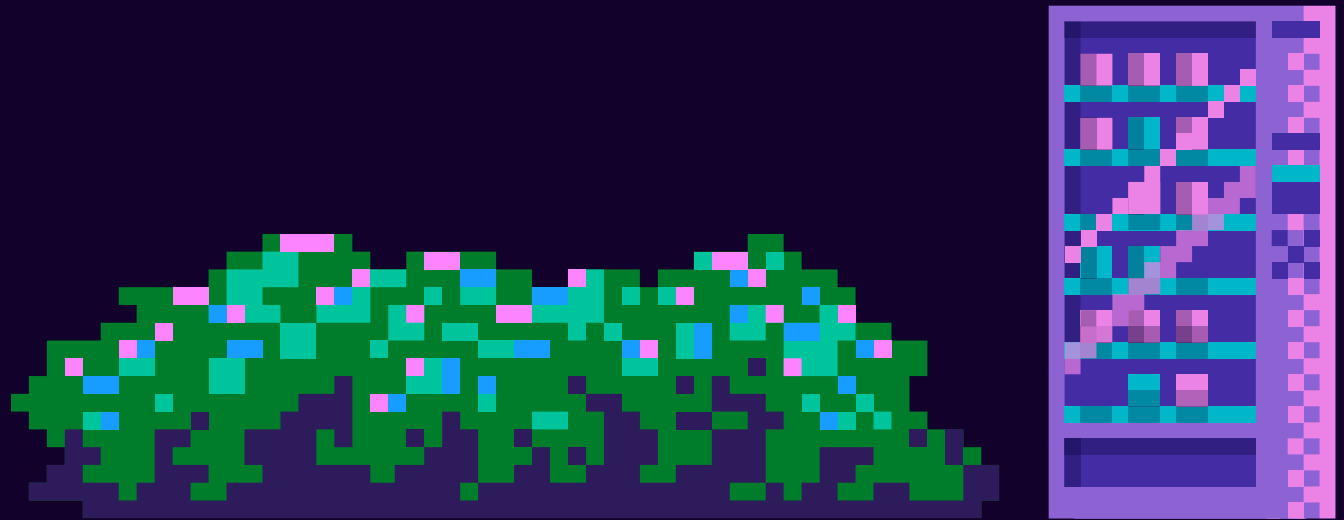
Stage 2 - Round 2

Enter values for sweet, salty, sour, bitter (0/1/2, space separated):

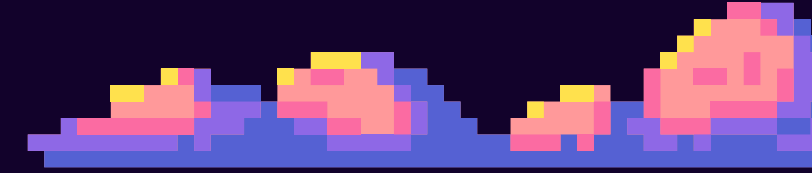
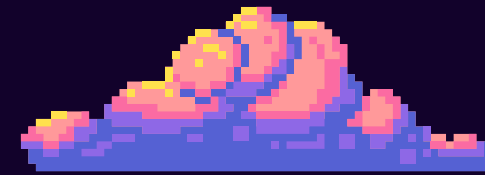




# TECHINICAL ACHIEVEMENTS

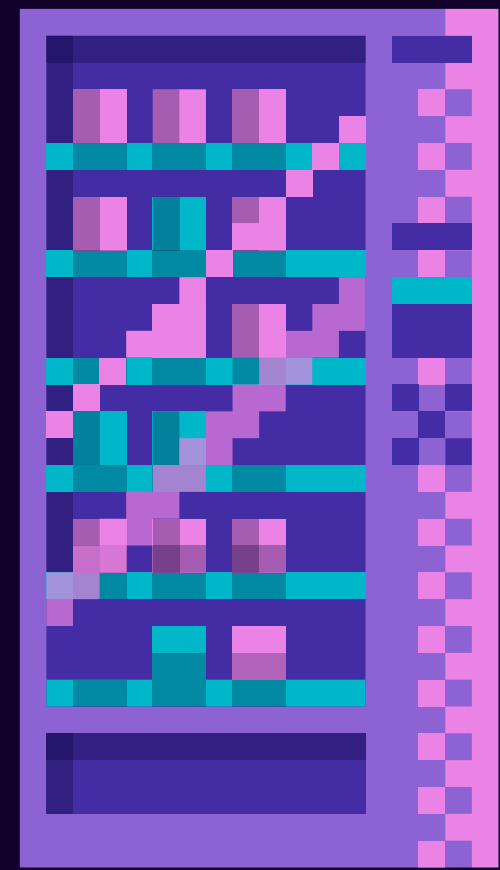


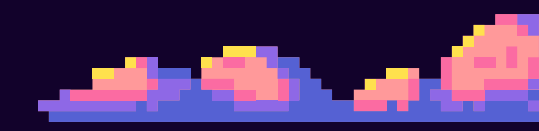
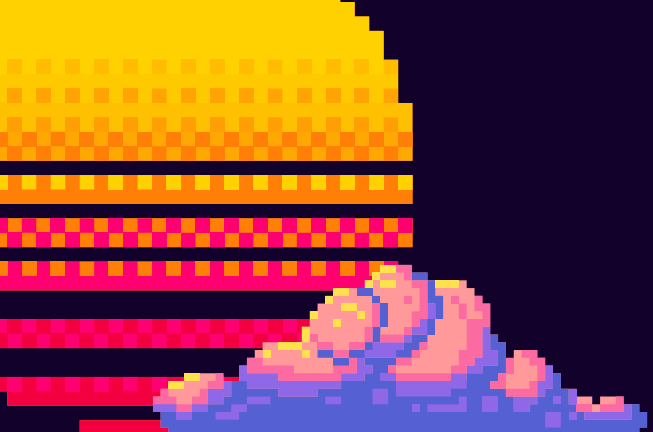
# TECHINICAL ACHIEVEMENTS



```
SC Files/Python Files/Practice/scorecheck.py"
Final Score: 820.0
Main mix: ['vodka', 'berry', 'sugar', 'water']
T2 base mix: []
Ingredient bank: set()
○ PS C:\Users\saran\OneDrive\Desktop\VSC Files\Python Files> █
```

```
Final Score: 1095.0
Main mix: ['vodka', 'berry', 'syrup']
T2 base mix: []
Ingredient bank: set()
○ PS C:\Users\saran\OneDrive\Desktop\VSC Files\Python Files> █
```





# VISUAL DESIGN

DEVELOPED ON ASPERITE

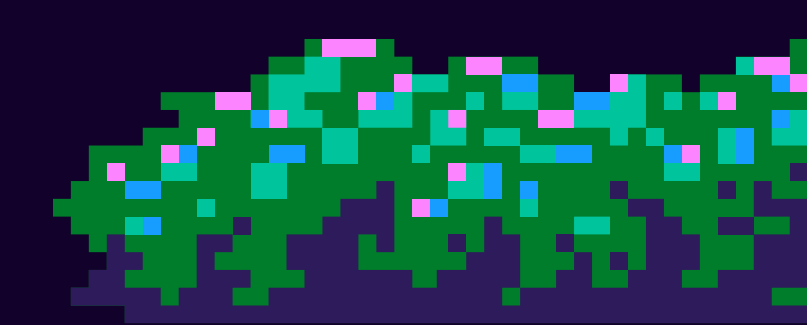
THEME : BAR SETTING,  
TAVERN-ESQUE

PRODUCED ASSETS:

CARDS

INGREDIENTS

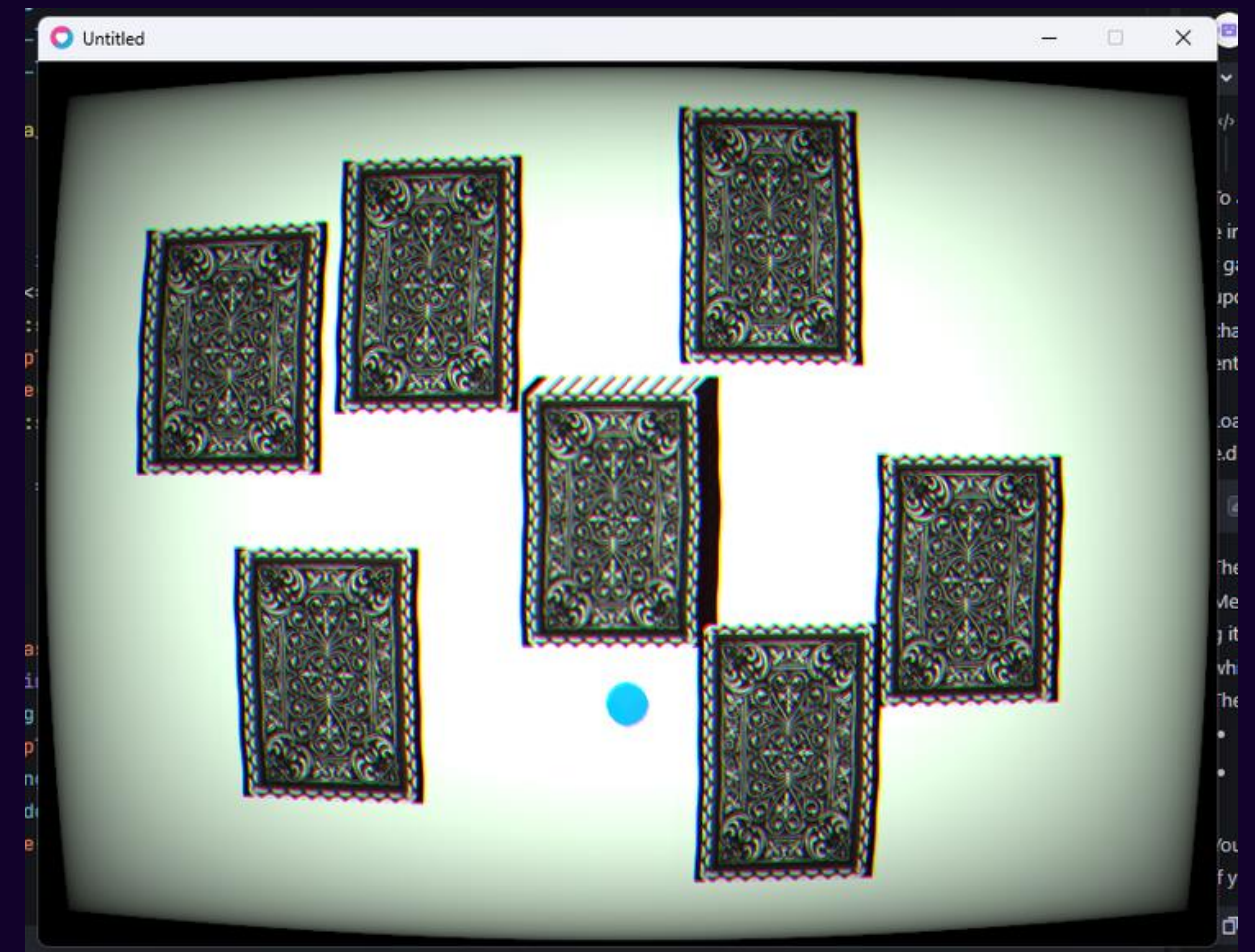
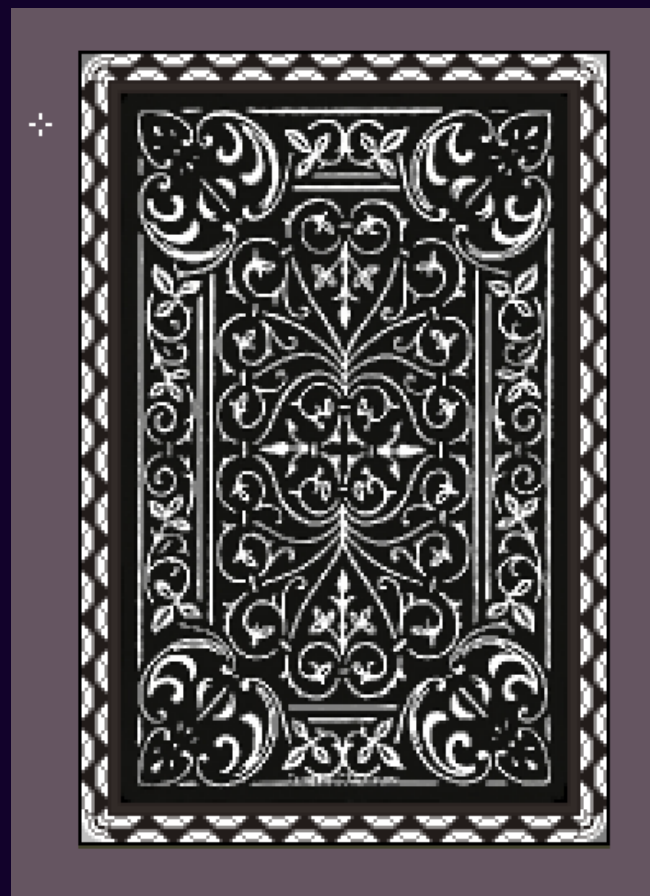
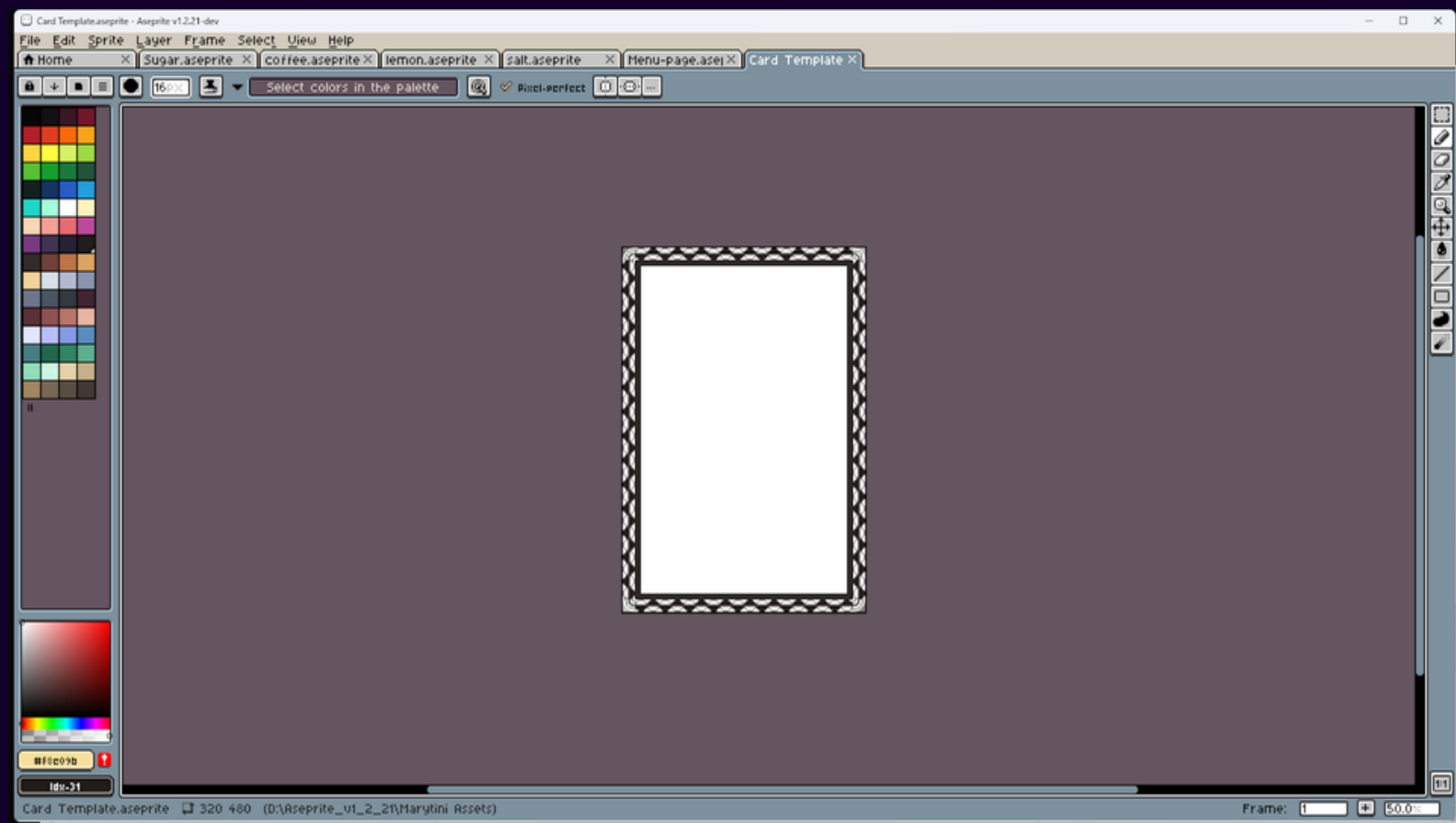
BAR MAIN MENU





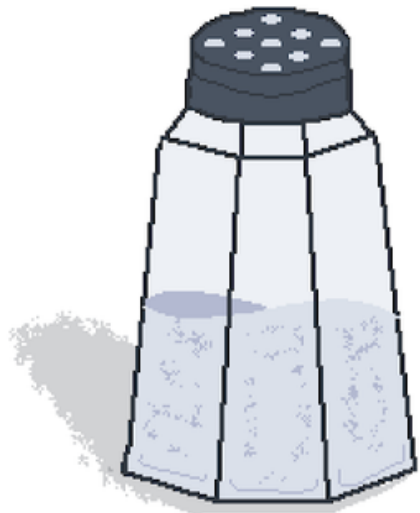
# VISUAL DESIGN

## UNDERSTANDING SPRITES AND WORKING WITH ASprite



# VISUAL DESIGN

Salt.



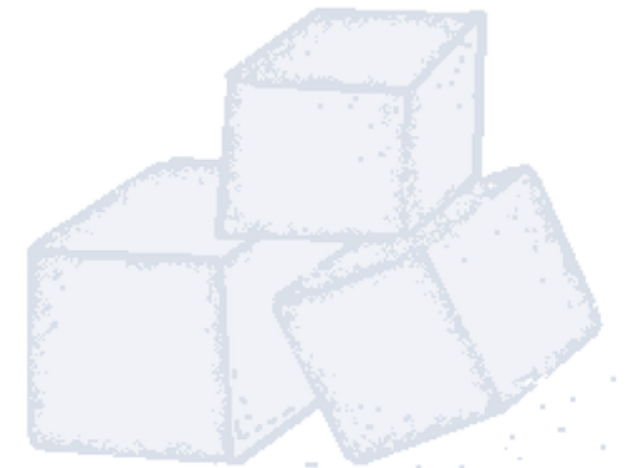
Coffee



Lemon



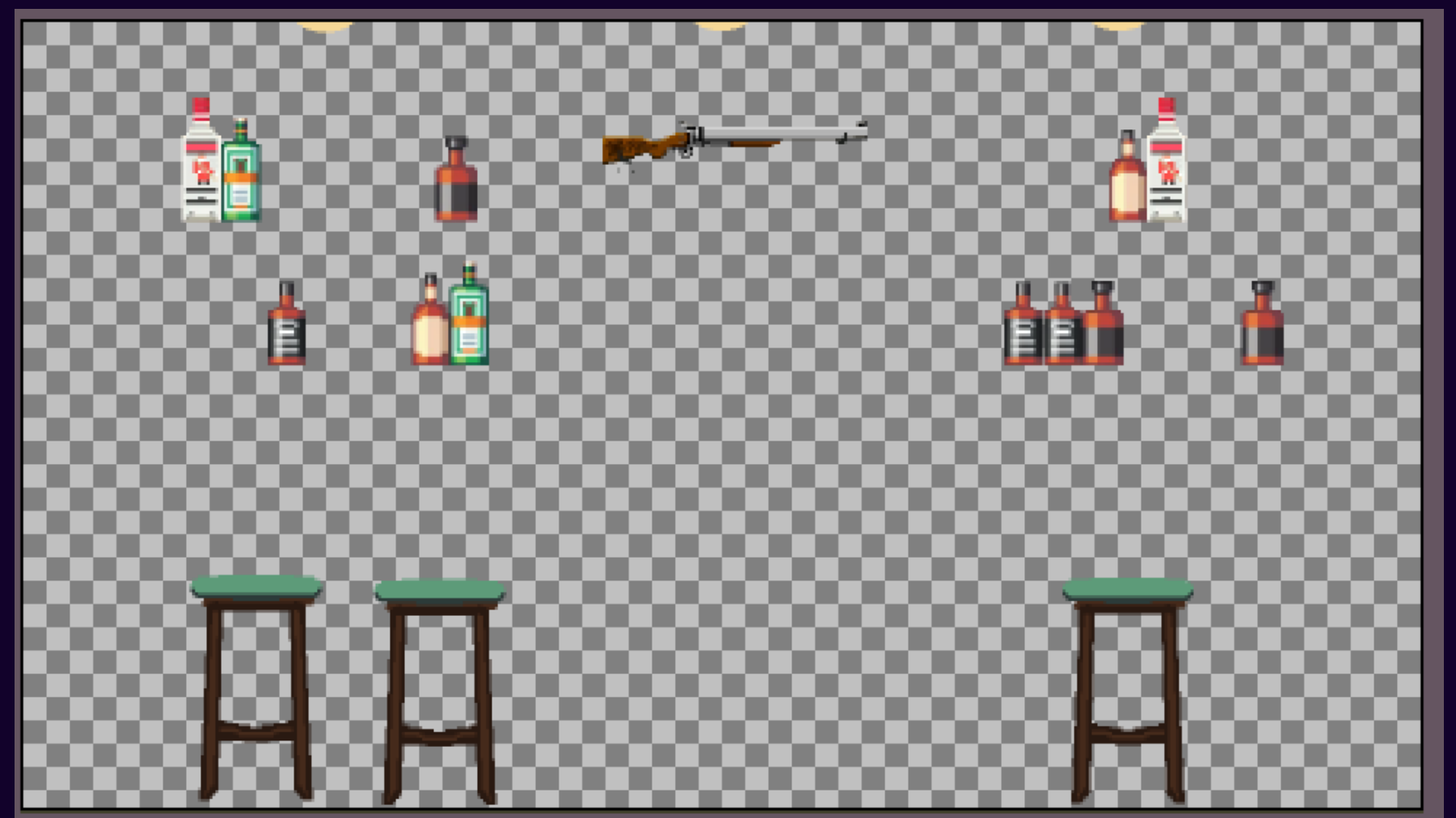
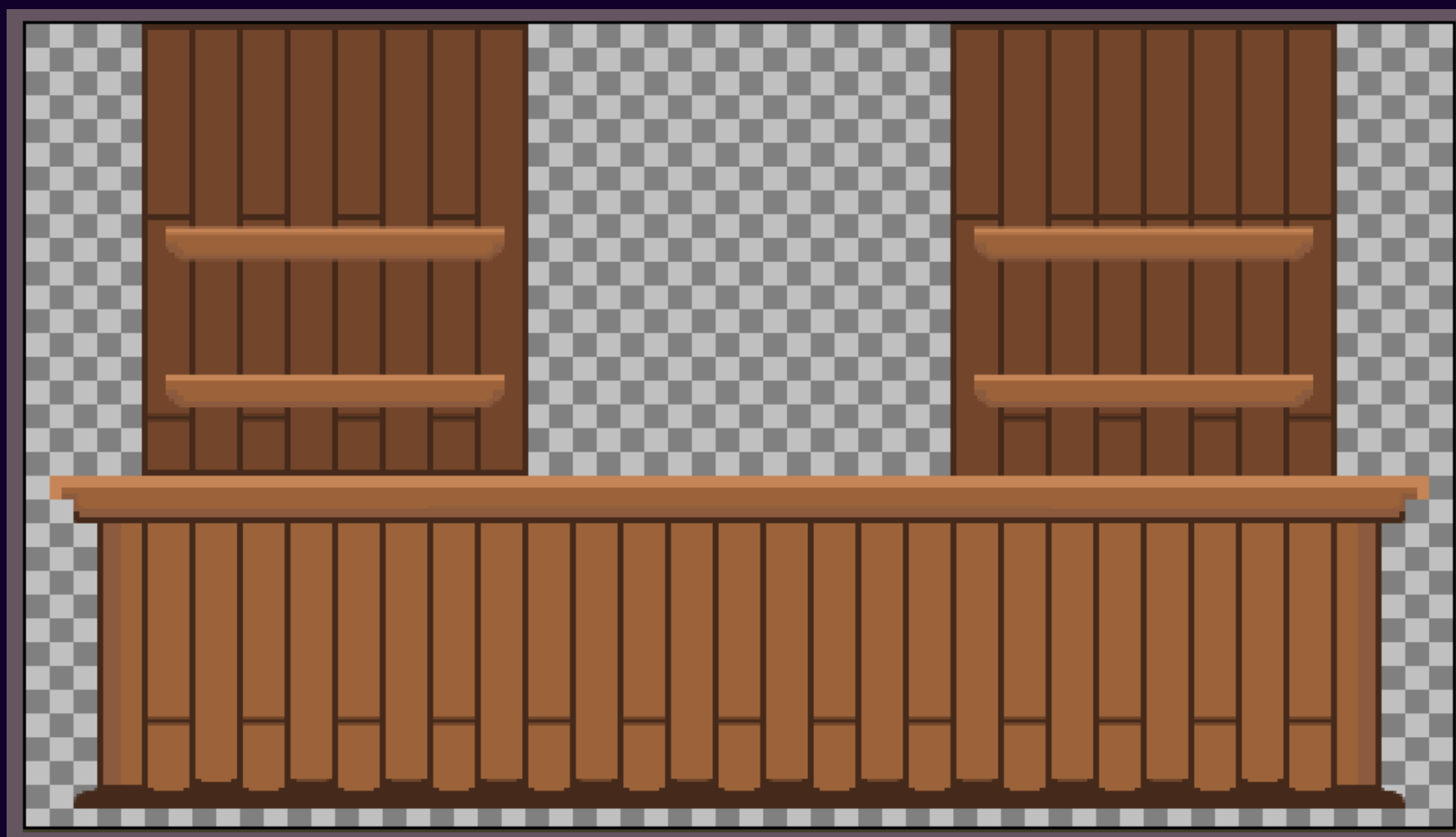
Sugar



# VISUAL DESIGN



# VISUAL DESIGN





# VISUAL DESIGN INSPIRATION





# TECHSTACK

01

LÖVE2D FRAMEWORK

02

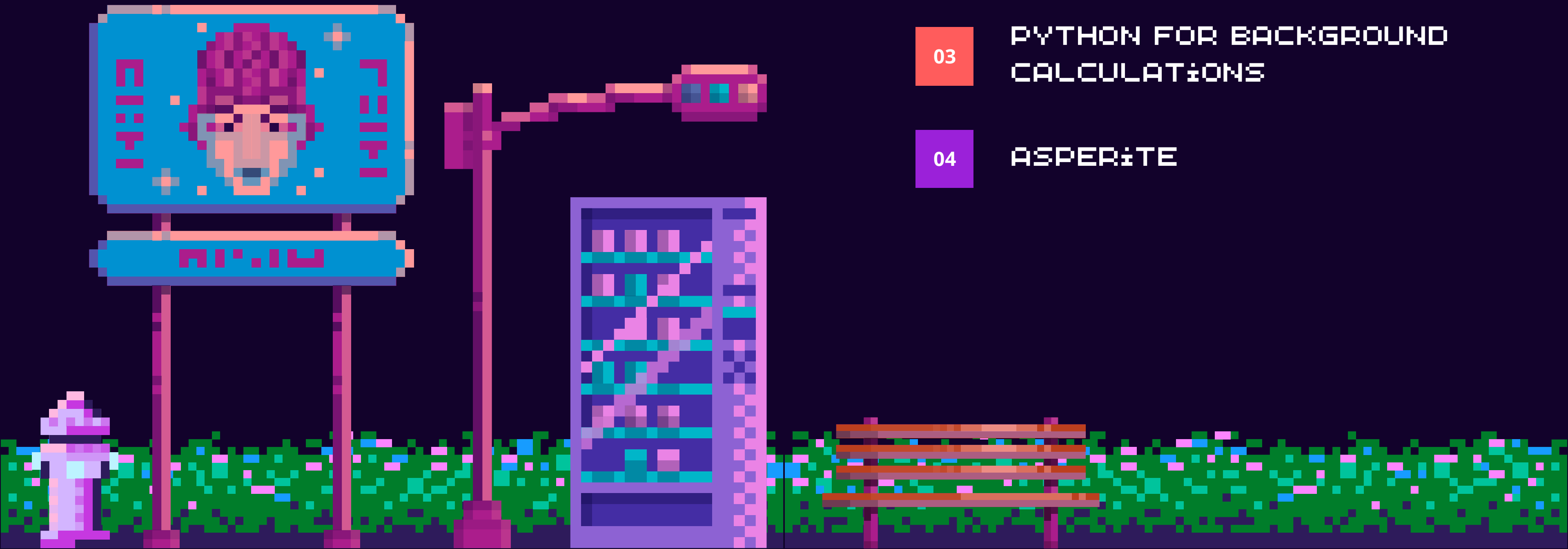
GAME LOGIC IN LUA

03

PYTHON FOR BACKGROUND  
CALCULATIONS

04

ASPERITE



# CHALLENGES AND REALIZAITIONS

- 01 SCORE CALCULATION
- 02 STRUCTURE OF THE GAME
- 03 INTEGRATION OF LUA, PYTHON  
AND ART FILES
- 04 STORYLINE, OVERESTIMATION  
OF TIME TO LEARN





# FUTURE PLANS

01

COMPLETE  
LUA, LOVE2D  
AND ASSET  
INTEGRATION

02

PLAY  
TESTING

03

MAINTENANCE  
AND  
DEPLOYMENT