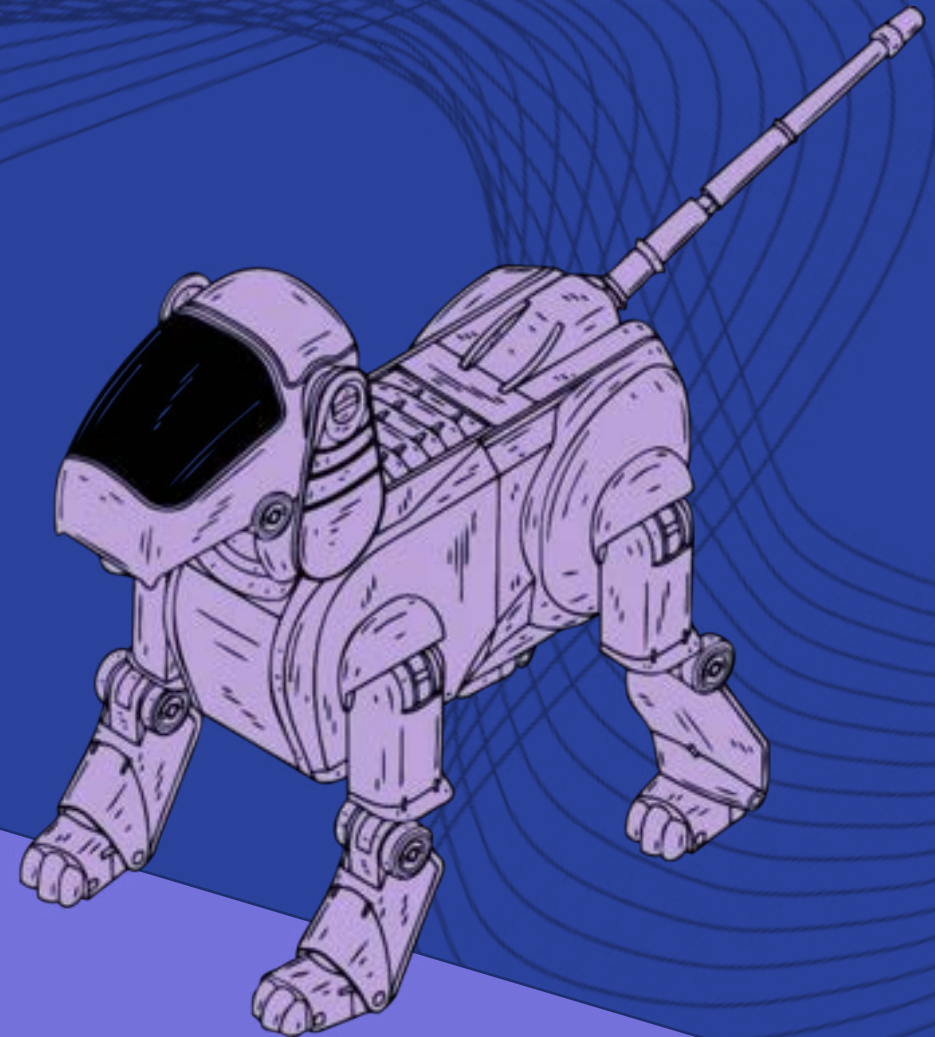


Café Simulator

Level 2 – Scratch

At Work



Introduction

A coffee shop is renowned for being a relaxed social space. One of the primary reasons why coffee shops have become so popular over the last decade is the feeling of comfort and relaxation they can provide. Working in a coffee shop however is far from this level of relaxation.

Baristas in action have to quickly turn over drinks ordered by the customer and can get complaints if they do so incorrectly.

Task

Your task is to finish this coffee shop simulator game using the template provided in order to allow the user to gain or lose points depending on accuracy of following instructions and completing orders

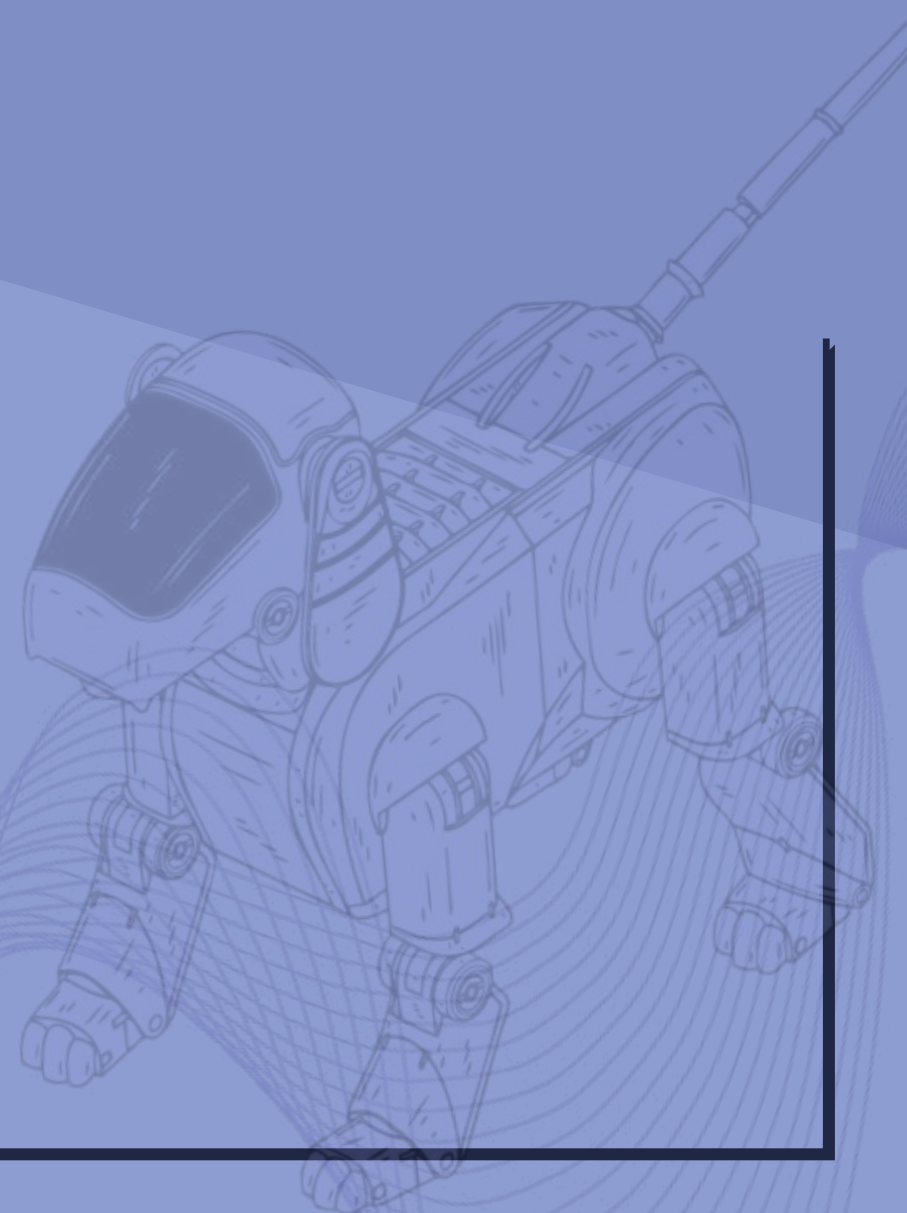
Process

Your code already...

- Contains a list of orders
- Has a built in scoring system
- Has a built in cup personalisation system

You should add...

- Movement to the different ingredients so that they move to the correct location when they are prompted to be poured into cup



What the game will look like...

- The user is given an order
- The user then has to select each of the ingredients
- When they have completed the order they should press the “finished?” button and will gain a point if they get the order correct



The template...

The link to the template is as follows
<https://scratch.mit.edu/projects/660428383>

What is already contained within the template will be explained to you over the following slides for you to attempt to replicate yourself once you have finished this project.

Make sure you use the remix option to save your own version of the code on your personal scratch account. Remixing allows creators to work together to collaborate on projects



Code Costumes Sounds

Motion

- move 10 steps
- turn 15 degrees
- turn 15 degrees

Control

- go to random position
- go to x: -130 y: 41
- glide 1 secs to random position
- glide 1 secs to x: -130 y: 41

Operators

- point in direction 90
- point towards mouse-pointer

Variables

- change x by 10
- set x to -130
- change y by 10
- set y to 41

when green flag clicked

- switch costume to costume1
- go to x: -130 y: 41
- repeat 9999999999
 - if backdrop name = kitchen then
 - show
 - hide

when this sprite clicked

There are built in parts of the code to enable you to do various functions.

This is where we will write the code to complete the program- this will be the same in the sugar, milk, coffee, syrups, cream and marshmallows sprites

cair 4 YOUTH cafe

order: sugar, milk, coffee, matcha, marshmallows

sugar milk coffee vanilla pumpkin spice matcha

cup color

finished?

score 0

Sprite sugar x: -130 y: 41

Show Size 100 Direction 90

Backdrops 1

syrup 1 syrup 2 syrup 3 whipped cream marshmallows the cup yellow cup...

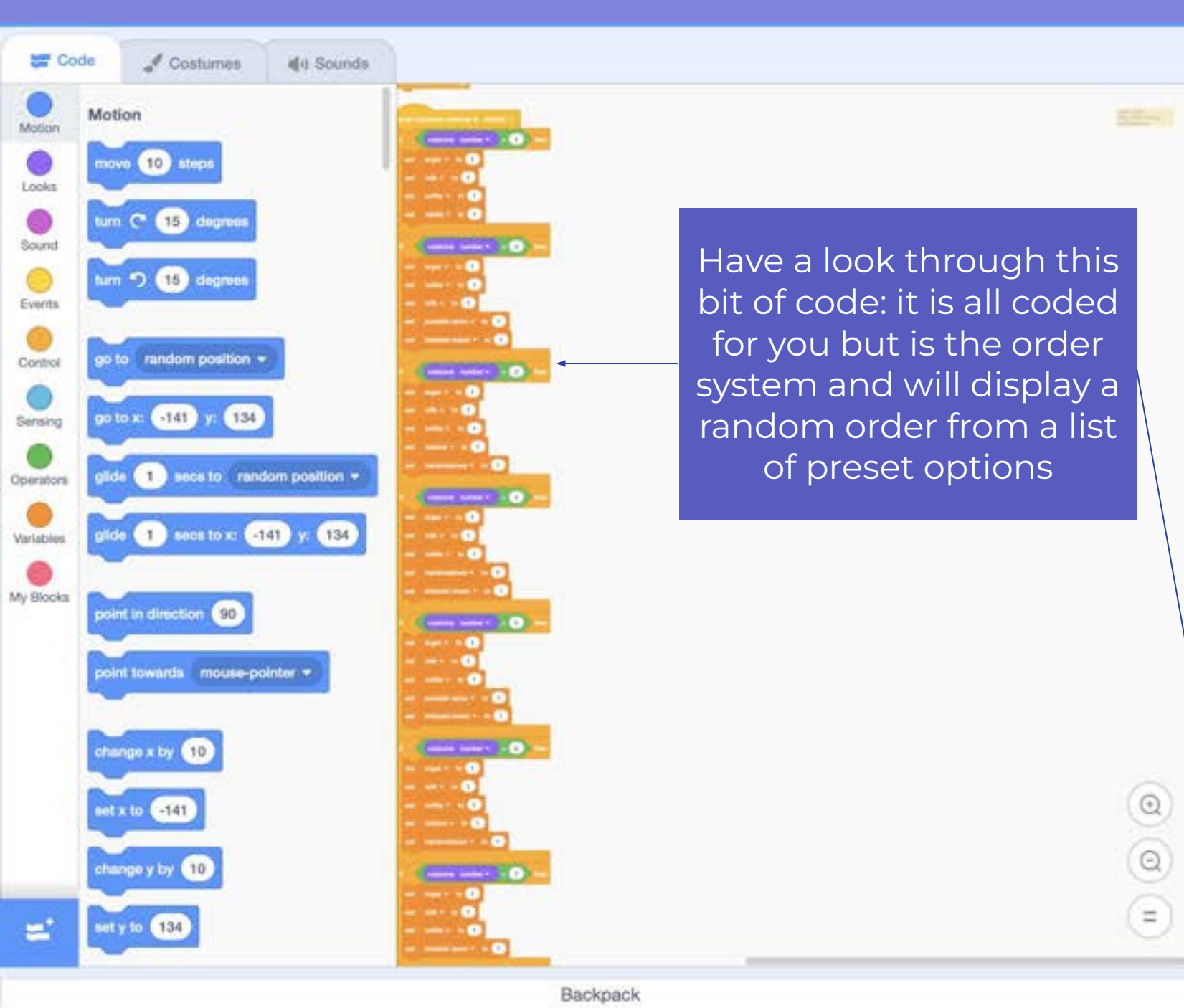
purple cup... green cup... blue cup c... Sprite15

Code Costumes Sounds

Motion

- move 10 steps
- turn 15 degrees
- turn 15 degrees
- go to random position
- go to x: -141 y: 134
- glide 1 secs to random position
- glide 1 secs to x: -141 y: 134
- point in direction 90
- point towards mouse-pointer
- change x by 10
- set x to -141
- change y by 10
- set y to 134

Backpack



The image shows the Scratch code editor interface. On the left, the 'Motion' category is selected in the sidebar. The main workspace displays a long sequence of motion blocks for a sprite named 'orders'. The blocks include: 'move 10 steps', 'turn 15 degrees' (twice), 'go to random position', 'go to x: -141 y: 134', 'glide 1 secs to random position', 'glide 1 secs to x: -141 y: 134', 'point in direction 90', 'point towards mouse-pointer', 'change x by 10', 'set x to -141', 'change y by 10', and 'set y to 134'. A blue callout box with white text points to the 'go to random position' block, stating: 'Have a look through this bit of code: it is all coded for you but is the order system and will display a random order from a list of preset options'.

Have a look through this bit of code: it is all coded for you but is the order system and will display a random order from a list of preset options

cair 4 YOUTH cafe

order: sugar, milk, coffee, matcha, marshmallows

sugar milk coffee vanilla pumpkin spice matcha

cup color

finished?

score 0

Sprite orders x: -141 y: 134

Show Size 100 Direction 90

sugar the milk coffee syrup 1 syrup 2

syrup 3 whipped c... marshmall... the cup yellow cup...

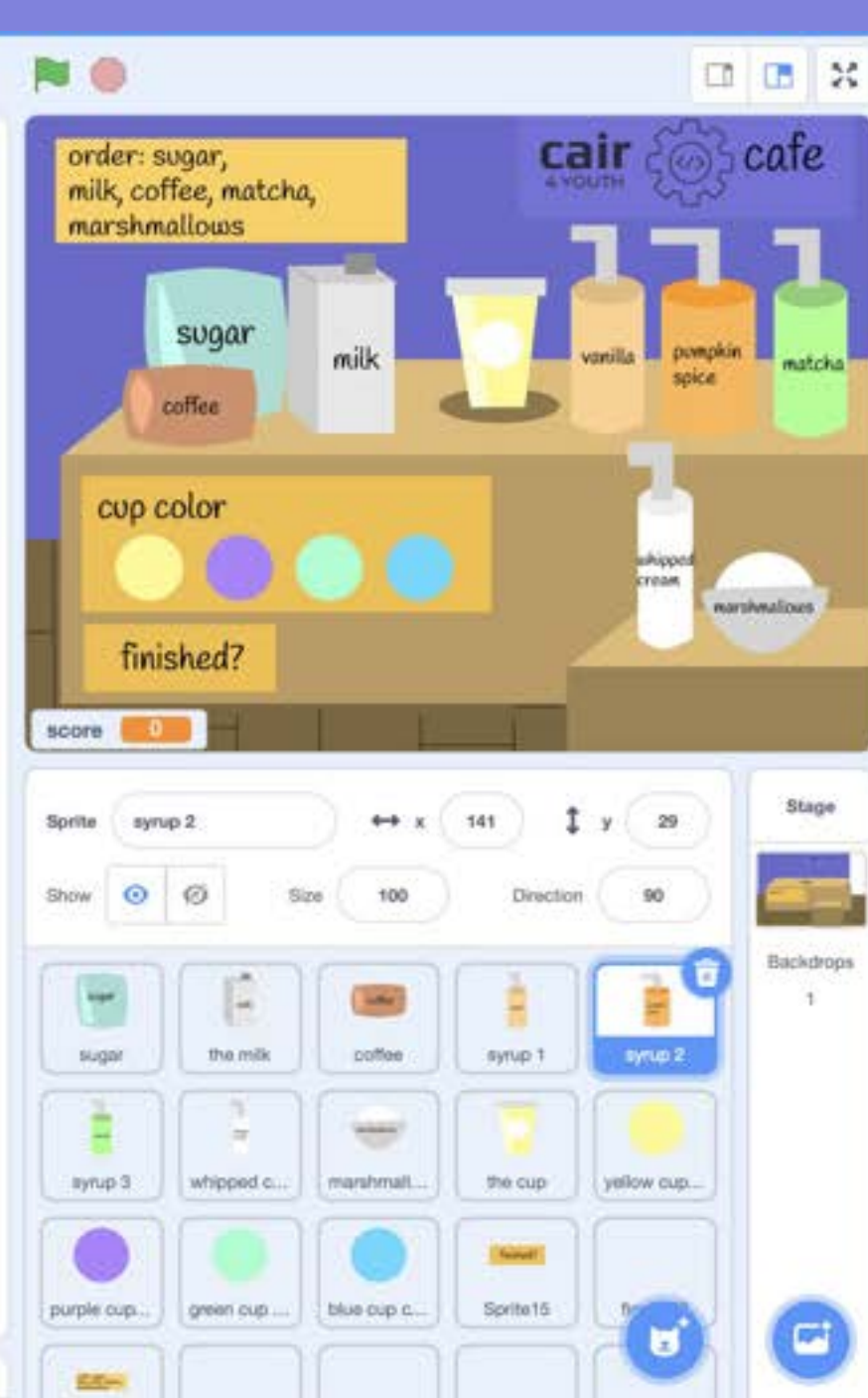
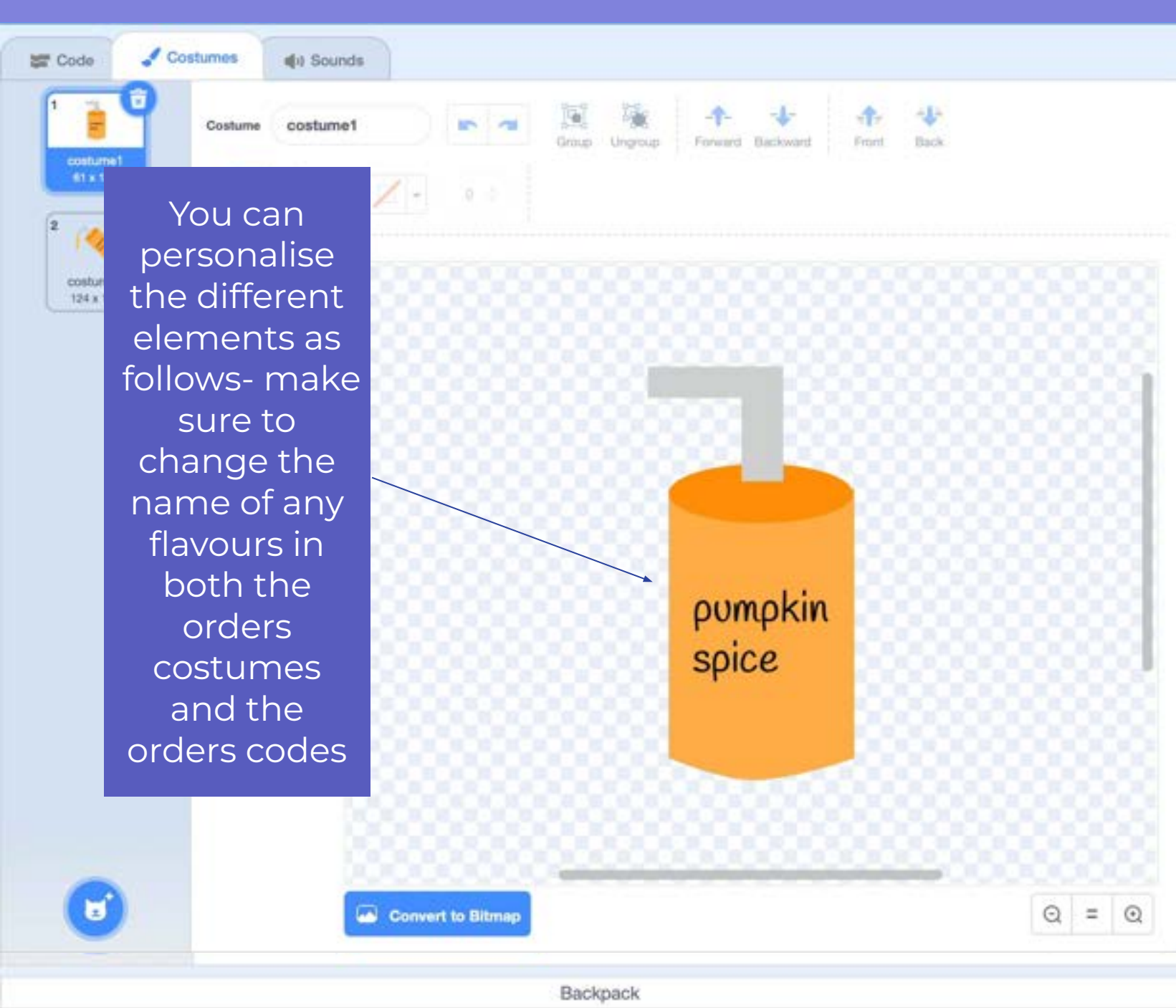
purple cup... green cup... blue cup c... Sprite15 finished?

orders orders correct co... incorrect c... not...

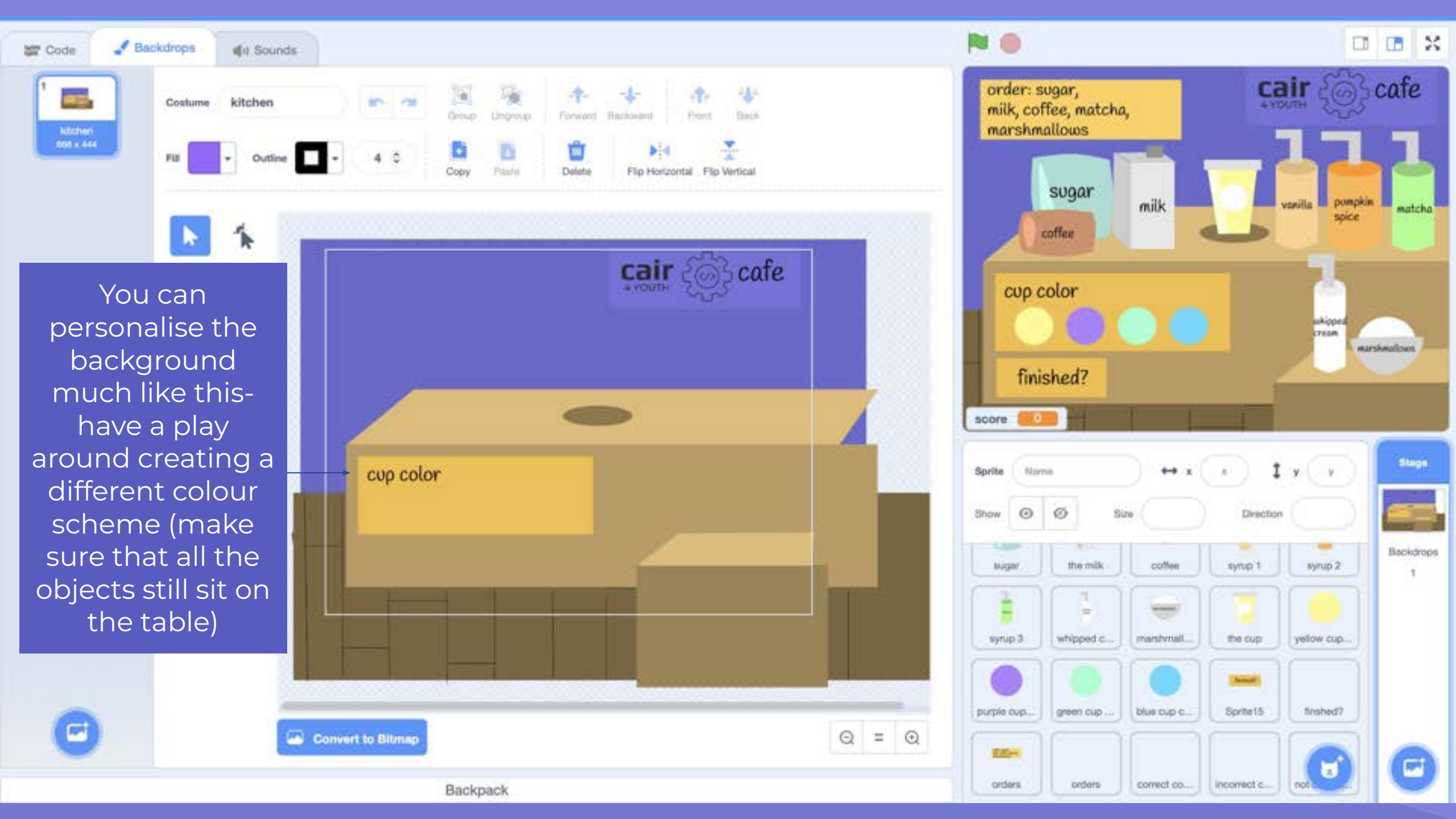


The image shows the Scratch stage interface. The stage is set to a 'cair 4 YOUTH cafe' backdrop. A character named 'orders' is positioned on the stage. The stage contains several elements: a sign with the order 'sugar, milk, coffee, matcha, marshmallows', a counter with various ingredients (sugar, milk, coffee, vanilla, pumpkin spice, matcha), a 'cup color' selection area with four colored circles (yellow, purple, green, blue), a 'finished?' button, and a 'score' display showing '0'. Below the stage, the 'Sprite' panel shows the 'orders' sprite selected, with its position set to x: -141, y: 134, size 100, and direction 90. The 'Backdrops' panel shows a single backdrop named '1'. The 'Sprites' panel shows a grid of sprites, including 'sugar', 'the milk', 'coffee', 'syrup 1', 'syrup 2', 'syrup 3', 'whipped c...', 'marshmall...', 'the cup', 'yellow cup...', 'purple cup...', 'green cup...', 'blue cup c...', 'Sprite15', and 'finished?'. The 'orders' sprite is highlighted in the grid.

You can personalise the different elements as follows- make sure to change the name of any flavours in both the orders costumes and the orders codes



You can personalise the background much like this- have a play around creating a different colour scheme (make sure that all the objects still sit on the table)



Time to start coding....

The image displays the Scratch code editor and stage for a project titled "cair 4 YOUTH cafe". The code is written in the "Code" tab, featuring a "when clicked" event that triggers a sequence of actions: switching costumes, moving to coordinates (-130, 41), and a large repeat loop (9999999999 times) containing an "if" statement to check the backdrop name and show/hide the sprite. A "when this sprite clicked" event is also present, indicated by an arrow pointing to it from a text box.

The stage shows a cafe counter with various ingredients and a "finished?" button. The ingredients include sugar, milk, coffee, vanilla, pumpkin spice, matcha, whipped cream, and marshmallows. The "finished?" button is currently disabled. The score is 0.

The "Sprite" panel shows the "sugar" sprite selected, with its position set to x: -130, y: 41, size 100, and direction 90. The "Backdrops" panel shows a single backdrop named "1".

Code:

```
when clicked
  switch costume to costume1
  go to x: -130 y: 41
  repeat (9999999999)
    if (backdrop name = kitchen) then
      show
      hide
  when this sprite clicked
```

Stage:

- Ingredients: sugar, milk, coffee, vanilla, pumpkin spice, matcha, whipped cream, marshmallows
- cup color: yellow, purple, green, blue
- finished? button
- score: 0

Sprite:

- Sprite: sugar
- Position: x: -130, y: 41
- Size: 100
- Direction: 90

Backdrops:

- Backdrops: 1

Text Box:

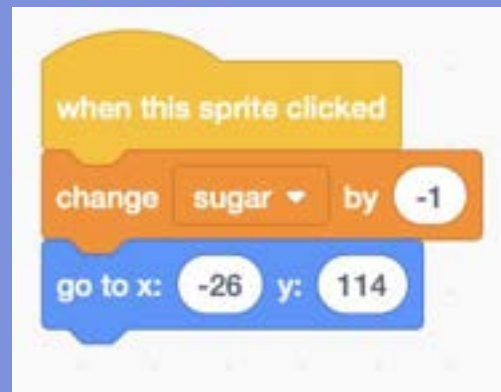
Your code will go in the sugar sprite and under this heading...

Step 1

Time to start coding...

Changing the variable sugar by -1 will indicate to the code that this sprite has been clicked, and will mean that it has been noted that the user has completed part of the order

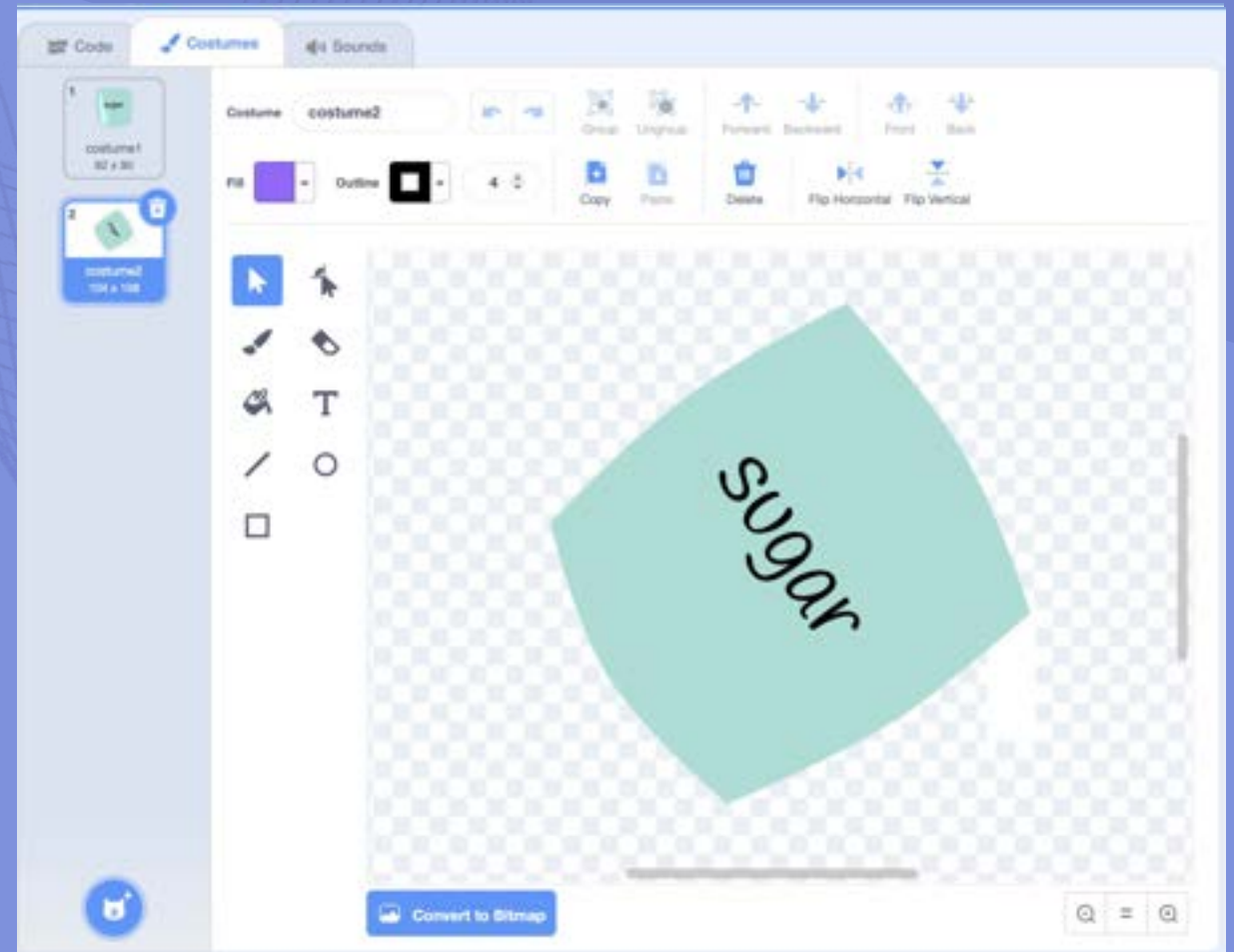
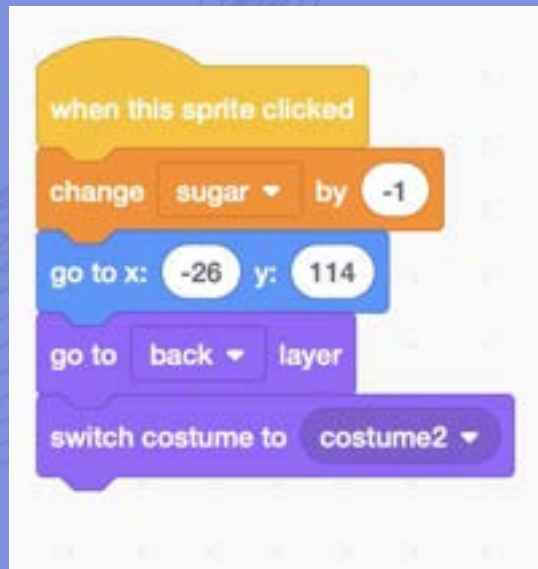
This coordinate will move the sugar bag to over the top of the cup



Step 2

Switching the costume

When the sugar bag is over the cup, it should look like it is being poured into the cup. Much like here....

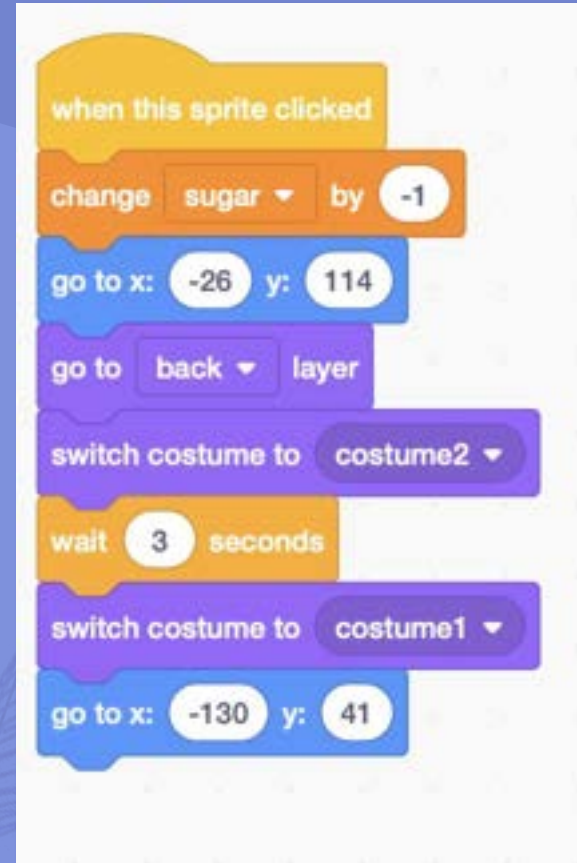


Step 3

Returning to the original position

The costume change will last 3 seconds until it is changed back to its original form.

It will be returned to the original position on the screen and the user will now be able to select another ingredient



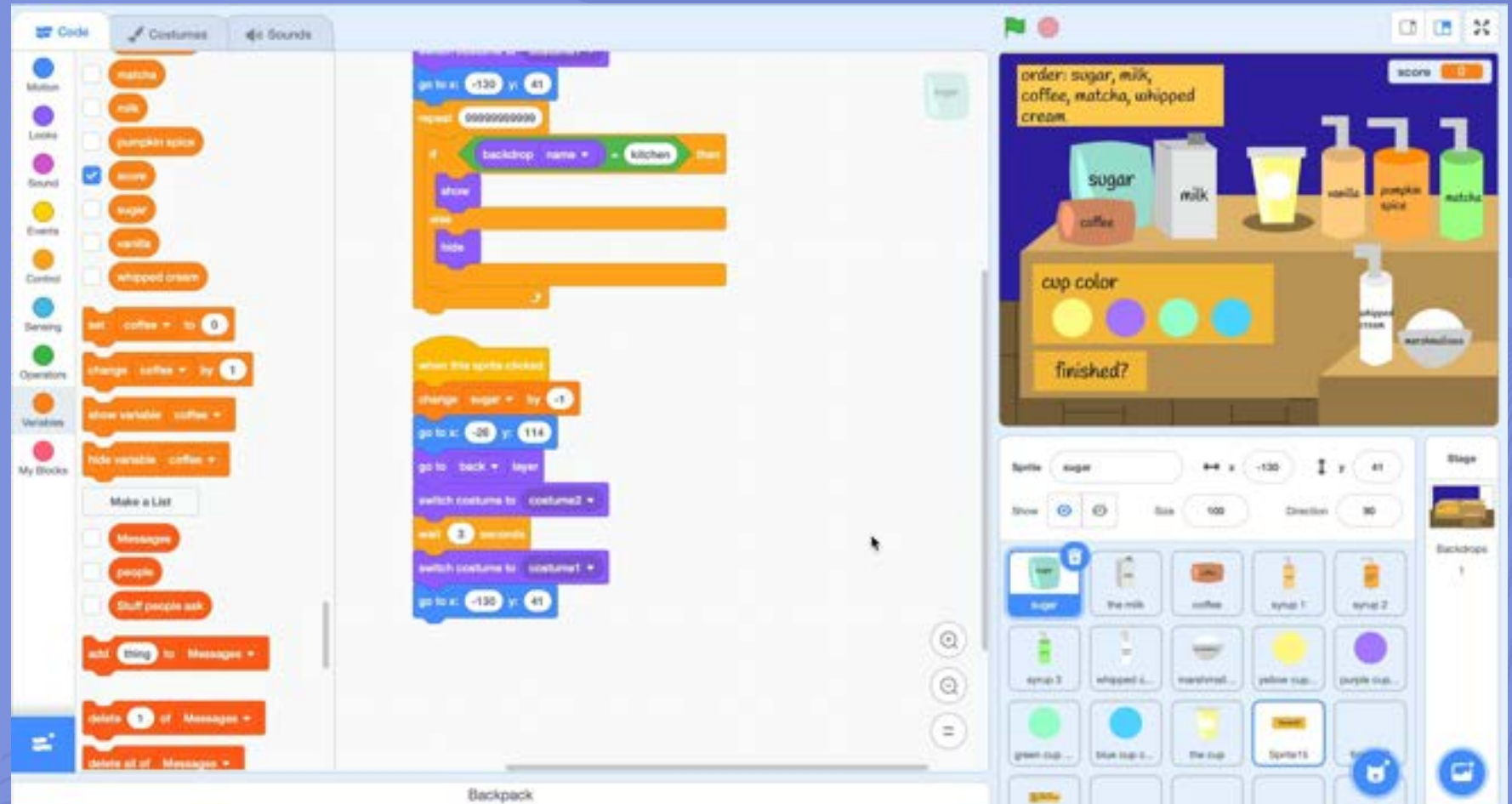
Step 4

Copying the code...

Copy the code into the following sprites:

- The milk
- Coffee
- Syrup 1
- Syrup 2
- Syrup 3
- Whipped cream
- Marshmallow

Watch this video in order to see how to copy the code

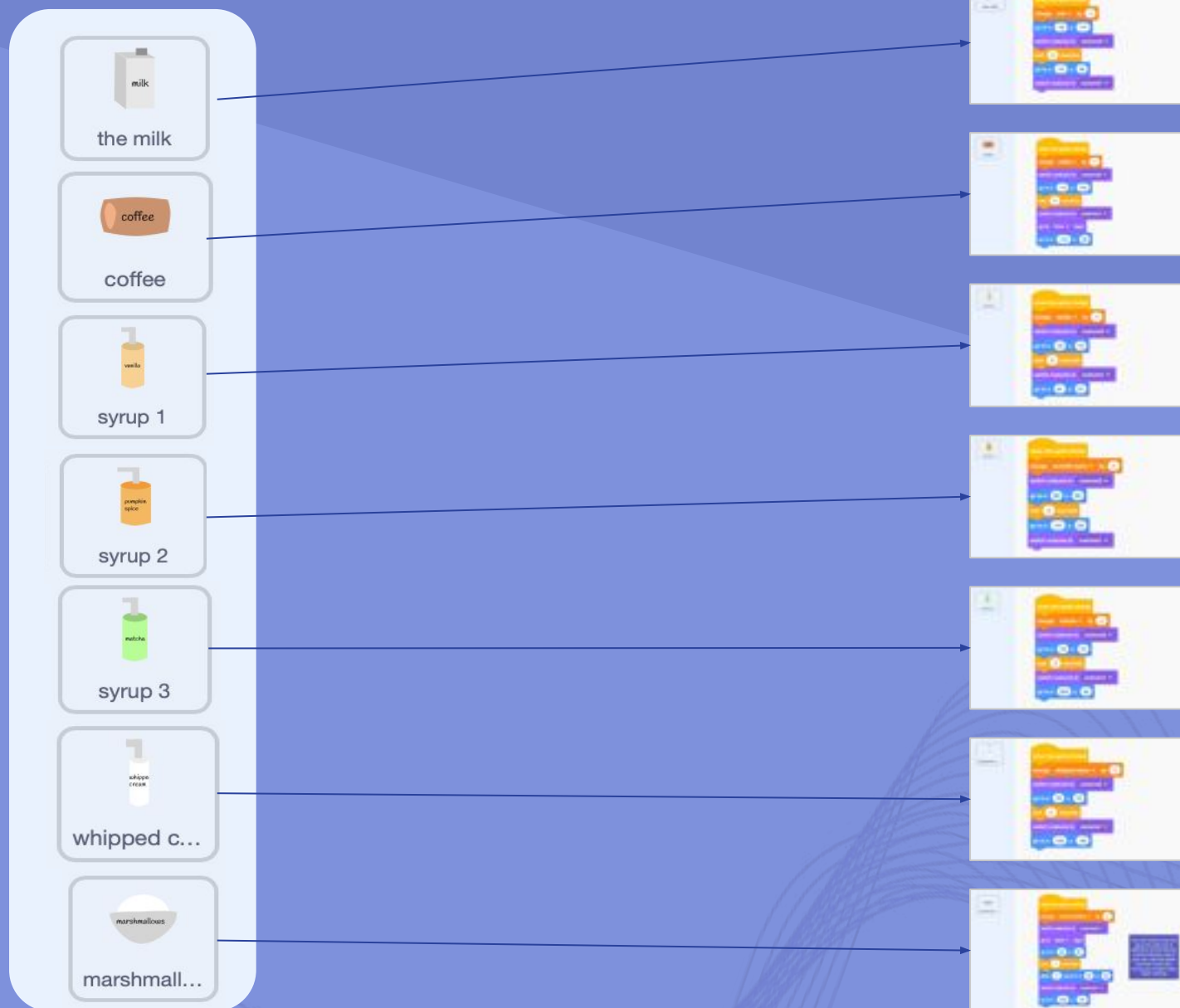


Step 5

Changing the coordinates

For each of the different elements, they will have a different starting position and a different ending position- play around with the different coordinates with each element before you see the answer on the next slide...







the milk

when this sprite clicked

change milk ▼ by -1

go to x: -33 y: 114

switch costume to costume2 ▼

wait 4 seconds

go to x: -70 y: 38

switch costume to costume1 ▼



coffee

when this sprite clicked

change coffee ▼ by -1

switch costume to costume2 ▼

go to x: -10 y: 152

wait 3 seconds

switch costume to costume1 ▼

go to front ▼ layer

go to x: -147 y: 39



syrup 1

when this sprite clicked

change vanilla ▼ by -1

switch costume to costume2 ▼

go to x: 79 y: 70

wait 2 seconds

switch costume to costume1 ▼

go to x: 91 y: 31



syrup 2

when this sprite clicked

change pumpkin spice ▼ by -1

switch costume to costume2 ▼

go to x: 80 y: 86

wait 2 seconds

go to x: 141 y: 29

switch costume to costume1 ▼



syrup 3

when this sprite clicked

change matcha ▼ by -1

switch costume to costume2 ▼

go to x: 79 y: 70

wait 2 seconds

switch costume to costume1 ▼

go to x: 205 y: 29



whipped c...

when this sprite clicked

change whipped cream ▼ by -1

switch costume to costume2 ▼

go to x: 78 y: 70

wait 2 seconds

switch costume to costume1 ▼

go to x: 122 y: -92



when this sprite clicked

change marshmallows ▼ by -1

switch costume to costume2 ▼

go to back ▼ layer

go to x: 46 y: 87

wait 1 seconds

glide 2 secs to x: 46 y: 43

switch costume to costume1 ▼

go to x: 182 y: -91

You will notice that the second costume is different to the first for marshmallows. See if you can use this glide function to fix any errors you might have been having

You have finished with the code!

See if you can go back and edit the template to make it your own...

Things you could do:

- Change the colour of the cups
- Change the background
- Change the ingredients used
- Change the scoring system?

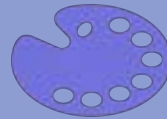


Links to everyday life



Cafés

This project allows users to think about the work that goes into completing orders accurately without making mistakes



Design

Using the drawing functions in scratch enables the users to learn how to customise a scratch project and make it their own



Conclusion

Learning outcomes

- ✓ You should be able to customise a preset template and alter colours and the appearance of sprites
- ✓ You should understand the use of coordinates in scratch and should be able to move sprites around the stage accordingly

Congratulations!

You have completed the project

