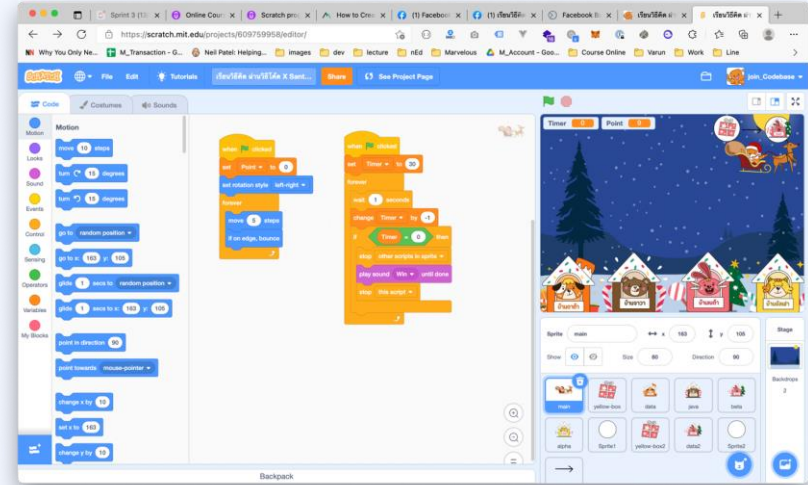
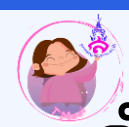


Concept การสร้าง Scratch

1. กำหนดเป้าหมายและเงื่อนไขของเกม
2. ออกแบบลักษณะ ตัวละคร (Sprite) หลัก
3. สร้าง Event ให้แต่ละตัวละคร
4. ทดสอบการทำงานพร้อมกัน





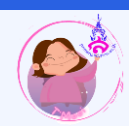
กำหนดเป้าหมายและเงื่อนไขของเกม

1. **เป้าหมาย:** Santa Claus ต้องการส่งของขวัญให้ลูกบ้าน

1. **เงื่อนไข:**

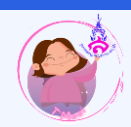
- 1 รอบ ใช้เวลาเล่น 30 วินาที
- ถ้า Santa ส่งลูกบ้าน คะแนนจะเพิ่ม
- แต่ถ้า Santa ส่งผิด ไม่มีอะไรเกิดขึ้น





แยกตัวละคร และ Backdrop





สร้าง Event ให้ Santa



- เคลื่อนที่ไปด้านหน้า
- เมื่อชนขอบให้เปลี่ยนทิศทาง
- วนซ้ำ

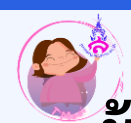


สร้าง Event ให้ Santa

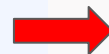


```
when clicked
  set rotation style left-right
  forever
    move 5 steps
    if on edge, bounce
```





ตั้งค่าให้ Santa



```
when clicked
  set rotation style left-right
  forever
    move 5 steps
    if on edge, bounce
```



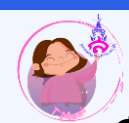


เคลื่อนที่ไปด้านหน้า

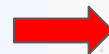


```
when clicked
  set rotation style left-right
  forever
    move 5 steps
    if on edge, bounce
```



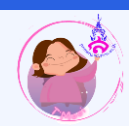


เมื่อชนขอบให้เปลี่ยนทิศทาง



```
when clicked
  set rotation style left-right
  forever
    move 5 steps
    if on edge, bounce
```





สร้าง Event ให้ กล่องของขวัญ



- เมื่อกด spacebar กล่องจะไปอยู่ที่ตำแหน่ง sprite ซานต้าคลอส
- ตกหล่นสู่พื้น
- เปลี่ยนกล่องของขวัญ



Scratch MIT Editor interface showing a Christmas-themed project. The main stage displays a winter scene with a night sky, snow, evergreen trees, and a sleigh with Santa Claus and reindeer. In the foreground, there are four small houses with different animal faces (dog, bear, rabbit, dog) and Thai text: บ้านดาด้า, บ้านจาวา, บ้านเมต้า, บ้านธัญญา.

The left sidebar shows a costume editor with four gift box costumes. The selected costume is a red gift box with white stars and a white ribbon. The right sidebar shows the sprite editor with the selected sprite being a yellow gift box. The bottom right shows the stage editor with the selected sprite being a yellow gift box.

Browser address bar: <https://scratch.mit.edu/projects/619822480/editor/>

Scratch MIT Editor navigation: File, Edit, Tutorials, [Test] เรียนวิธีคิด ผ่านวิธีคิด ..., Share, See Project Page

Scratch MIT Editor tabs: Code, Costumes, Sounds

Costume editor: Costume 4-box, Fill purple, Outline black, 4

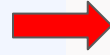
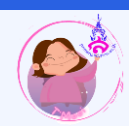
Tools: Select, Erase, Fill, Text, Line, Circle, Rectangle

Stage editor: Sprite yellow-box, x: -42, y: 85, Show, Size 60, Direction 90

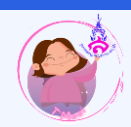
Sprite list: santa, yellow-box, data, java, beta, alpha, Sprite1, yellow-box2, data2, Sprite2

Backdrops: 2

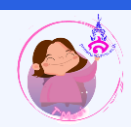
Backpack



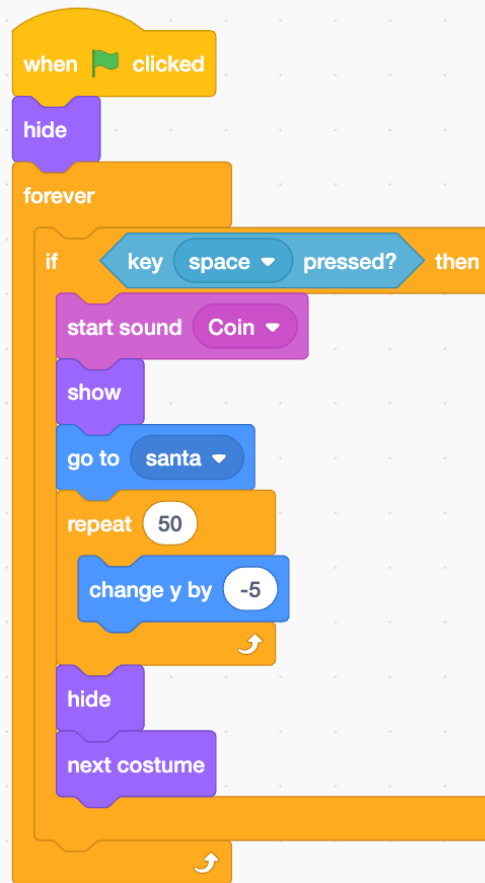
```
when clicked
hide
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    next costume
```

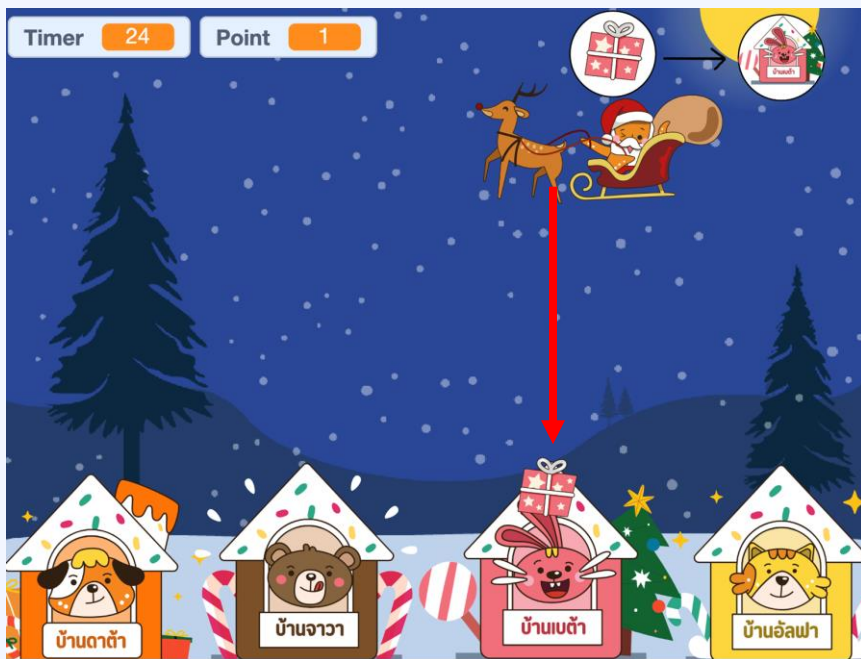


```
when clicked
hide
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    next costume
```



```
when clicked
hide
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    next costume
```

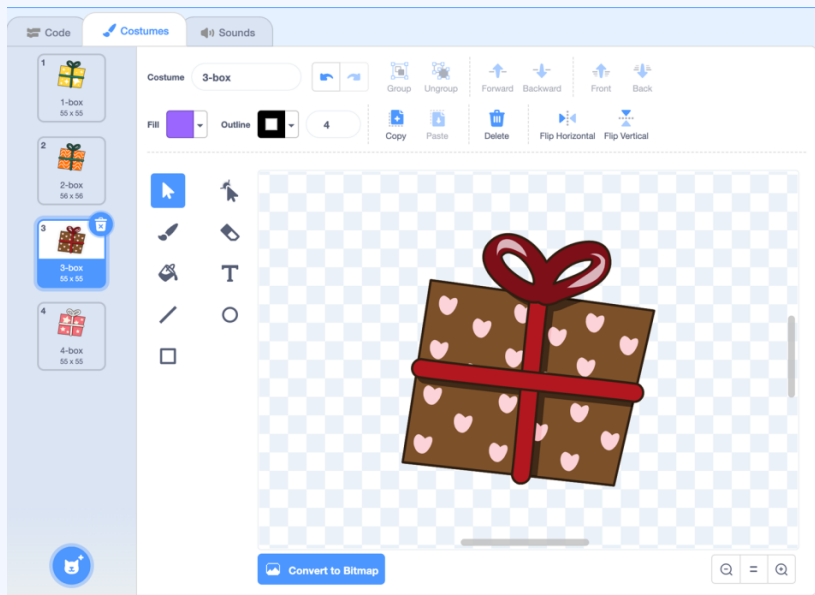




```
when clicked
hide
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    next costume
```



```
when clicked
hide
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    next costume
```

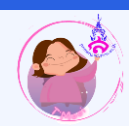



```

when clicked
  hide
  set box to costume number
  forever
    if key space pressed? then
      start sound Coin
      show
      go to santa
      repeat 50
        change y by -5
      hide
      switch costume to join pick random 1 to 4 -box
      set box to costume number
  
```

The code block is a Scratch script starting with a 'when clicked' event. It contains a 'hide' block, followed by a 'set box to costume number' block. A 'forever' loop contains an 'if key space pressed?' block. Inside the 'if' block, there is a sequence of blocks: 'start sound Coin', 'show', 'go to santa', a 'repeat 50' loop containing a 'change y by -5' block, a 'hide' block, a 'switch costume to join pick random 1 to 4 -box' block, and finally a 'set box to costume number' block. The 'forever' loop has a return arrow at the bottom.





สร้าง Event ให้ บ้านแต่ละหลัง



- เช็คว่ากล่องที่ตกลงมาโดนบ้านส่งมาถูกต้องหรือไม่
- ถ้าถูกต้องคะแนน +1 คะแนน





สร้าง Event ให้ บ้านแต่ละหลัง



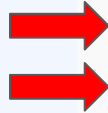
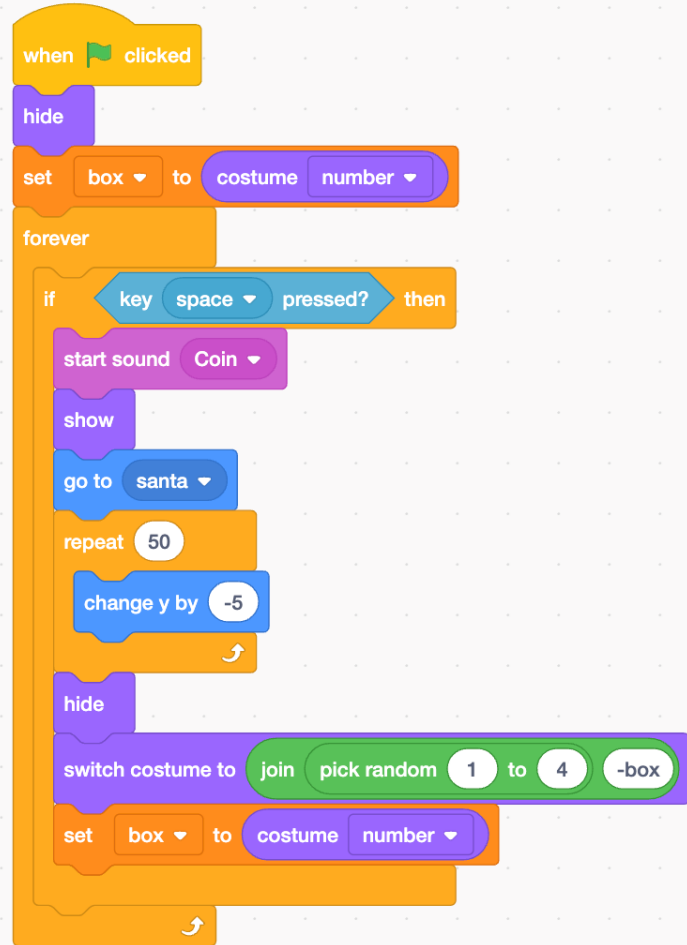
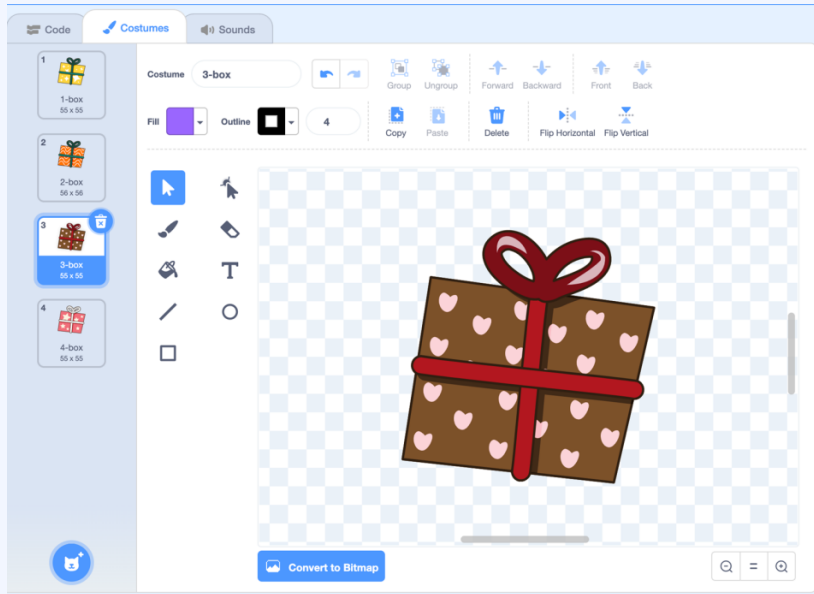
```
when clicked
  forever
    if box = 1 and touching yellow-box ? then
      change Point by 1
      start sound Collect
      wait 1 seconds
```



สร้าง Event ให้ บ้านแต่ละหลัง

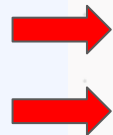


```
when clicked
  forever
    if box = 1 and touching yellow-box ? then
      change Point by 1
      start sound Collect
      wait 1 seconds
```





สร้าง Event ให้ บ้านแต่ละหลัง



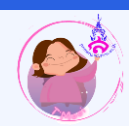
```
when clicked
  forever
    if box = 1 and touching yellow-box ? then
      change Point by 1
      start sound Collect
      wait 1 seconds
```



สร้าง Event ให้ บ้านแต่ละหลัง



```
when clicked
  forever
    if box = 1 and touching yellow-box ? then
      change Point by 1
      start sound Collect
      wait 1 seconds
```



Scratch editor interface showing a project titled "เรียนวิธีคิด ผ่านวิธีโค้ด X Santa cl". The browser address bar shows the URL: <https://scratch.mit.edu/projects/619822480/editor/>.

The interface includes a top navigation bar with "Scratch", "File", "Edit", "Tutorials", "Share", and "See Project Page". Below this is a "Code" tab with "Costumes" and "Sounds" sub-tabs.

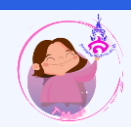
The left sidebar contains a "Variables" section with a "Make a Variable" button and a list of variables: "box", "my variable", "Point", and "Timer". The "Point" and "Timer" variables are checked. Below this is a "My Blocks" section with "Make a List" and "Make a Block" buttons.

The main workspace shows two scripts:

- Script 1:** When clicked, set rotation style to left-right, then a forever loop containing a "move 5 steps" block and an "if on edge, bounce" block.
- Script 2:** When clicked, start sound "Jingle Bells 3", set "Point" to 0, and set "Timer" to 30. Then a forever loop containing a "wait 1 seconds" block, a "change Timer by -1" block, and an "if Timer = 0 then" block. The "if" block contains "stop other scripts in sprite", "play sound 'Win' until done", and "stop this script".

The stage area shows a winter scene with a night sky, snow, trees, and four houses with characters inside. The character "santa" is selected in the sprite area. The sprite area shows a list of sprites: "santa", "yellow-box", "data", "java", "beta", "alpha", "Sprite1", "yellow-box2", "data2", and "Sprite2". The "santa" sprite is currently selected.

The bottom of the interface features a "Backpack" label and a "Backpack" button.



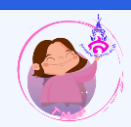
Timer 0 Point 2

บ้านตาต้า

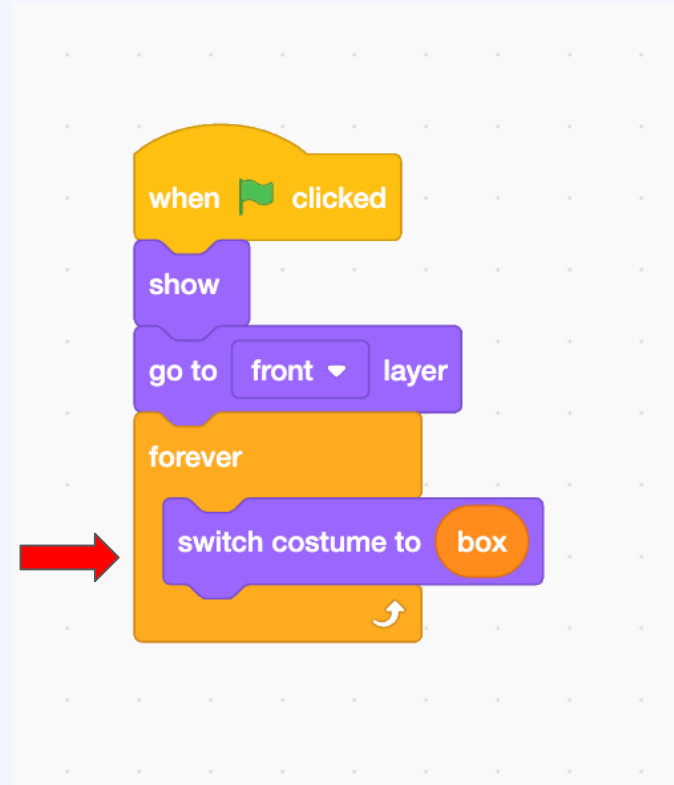
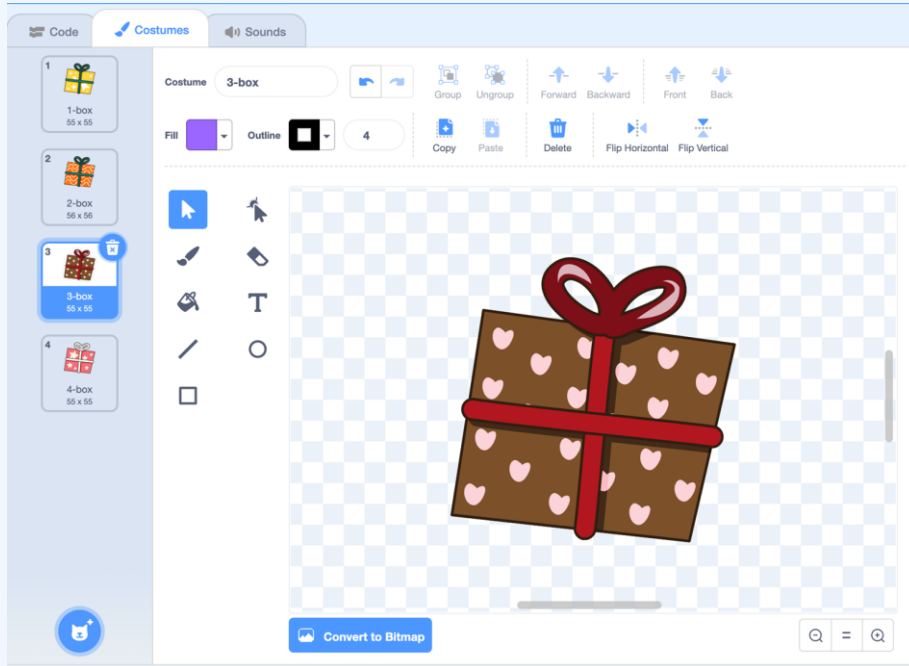
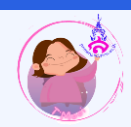
บ้านจาวา

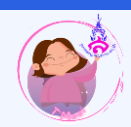
บ้านเมต้า

บ้านอัลฟา

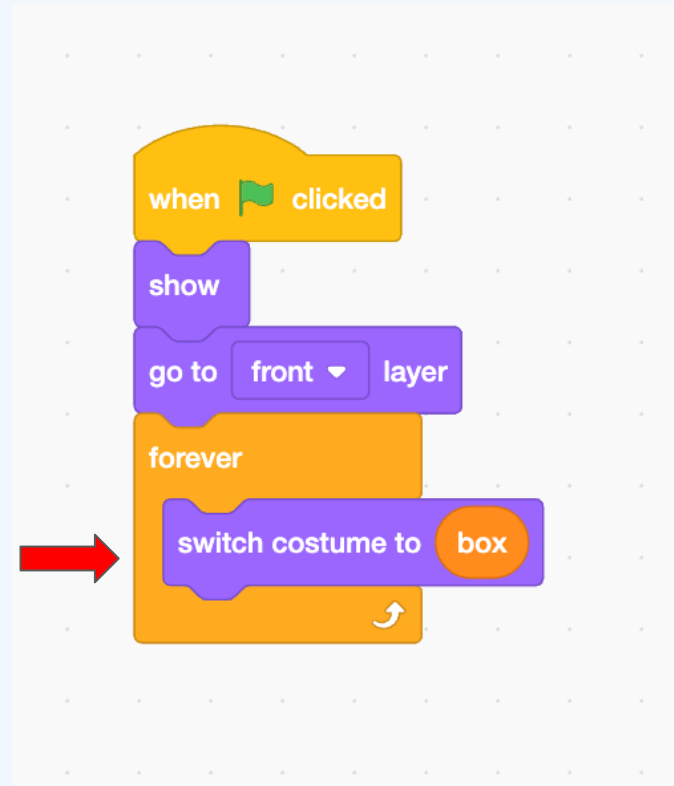
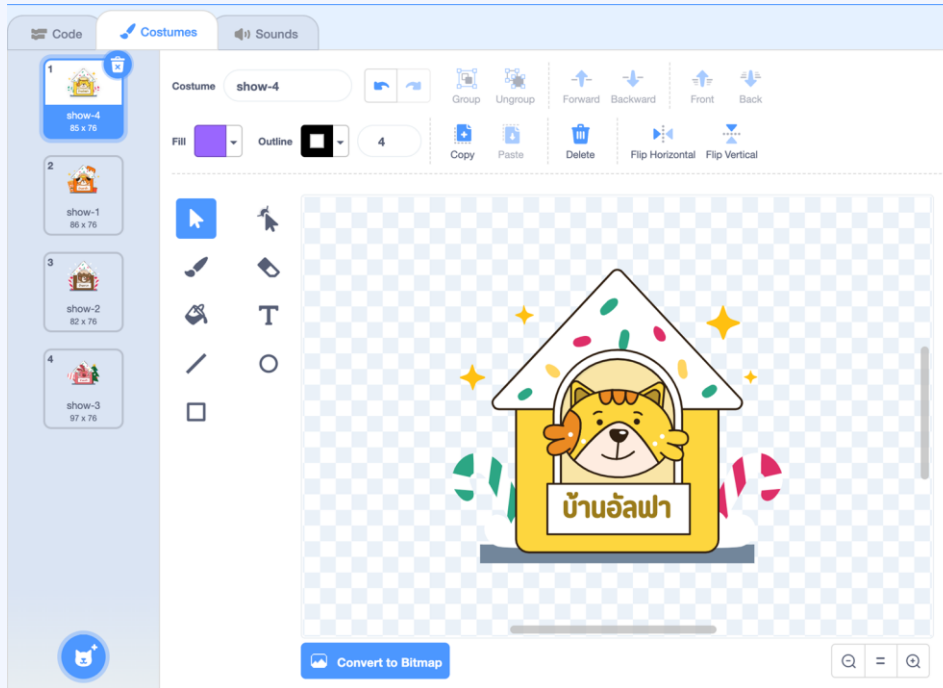
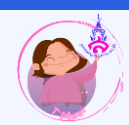


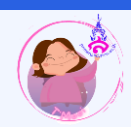
```
when clicked
show
go to front layer
forever
switch costume to box
```





```
when clicked
show
go to front layer
forever
switch costume to box
```





```
when clicked
hide
set box to costume number
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    switch costume to join pick random 1 to 4 -box
    set box to costume number
```



```
when clicked
hide
set box to costume number
forever
  if key space pressed? then
    start sound Coin
    show
    go to santa
    repeat 50
      change y by -5
    hide
    switch costume to join pick random 1 to 4 -box
    set box to costume number
    broadcast change-box and wait
```



```
when clicked clicked  
show  
go to front layer  
forever  
switch costume to box
```

→

```
when I receive change-box  
switch costume to box
```

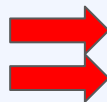
ตั้งค่าเริ่มต้น และจับเวลา



```
when green flag clicked
  start sound Jingle Bells 3
  set Point to 0
  set Timer to 30
  forever
    wait 1 seconds
    change Timer by -1
    if Timer = 0 then
      stop other scripts in sprite
      play sound Win until done
      stop this script
```



ตั้งค่าเริ่มต้น และจับเวลา



```
when green flag clicked
start sound Jingle Bells 3
set Point to 0
set Timer to 30
forever
wait 1 seconds
change Timer by -1
if Timer = 0 then
stop other scripts in sprite
play sound Win until done
stop this script
```



ตั้งค่าเริ่มต้น และจับเวลา



```
when clicked
start sound Jingle Bells 3
set Point to 0
set Timer to 30
forever
wait 1 seconds
change Timer by -1
if Timer = 0 then
stop other scripts in sprite
play sound Win until done
stop this script
```



ตั้งค่าเริ่มต้น และจับเวลา



```
when clicked
start sound Jingle Bells 3
set Point to 0
set Timer to 30
forever
wait 1 seconds
change Timer by -1
if Timer = 0 then
stop other scripts in sprite
play sound Win until done
stop this script
```



ตั้งค่าเริ่มต้น และจับเวลา



```
when clicked
start sound Jingle Bells 3
set Point to 0
set Timer to 30
forever
wait 1 seconds
change Timer by -1
if Timer = 0 then
stop other scripts in sprite
play sound Win until done
stop this script
```





สรุป code ทั้งหมด

1

Code Cost Sounds

Variables

- Motion
- Looks
- Sound
- Events
- Control
- Sensing
- Operators
- Variables
- My Blocks

Make a Variable

box my variable Point Timer

set box to 0 change box by 1 show variable box hide variable box

Make a List

Make a Block

```

when clicked
  set rotation style left-right
  forever
    move 5 steps
    if on edge, bounce
  
```

```

when clicked
  start sound Jingle Bells 3
  set Point to 0
  set Timer to 60
  forever
    wait 1 seconds
    change Timer by -1
    if Timer = 0 then
      stop other scripts in sprite
      play sound Win until done
      stop this script
  
```

Timer 57 Point 0

Sprite main x 152 y 105

Show Size 80 Direction -90

Backdrops 2

main yellow-box data java beta

alpha Sprite1 yellow-box2 data2 Sprite2

Sprite3



2

```

when green flag clicked
  hide
  switch costume to 1-box
  set box to costume number
  forever
    if key space pressed? then
      start sound Coin
      show
      go to main
      repeat 50
        change y by -5
      hide
      switch costume to join pick random 1 to 4 -box
      set box to costume number
  
```

Timer 57 Point 0

Sprite: yellow-box x: 58 y: -30

Show: [on] Size: 60 Direction: 90

Backdrops: 2

3

```
when clicked
  forever loop
    if box = 2 and touching yellow-box ?
      change Point by 1
      start sound Collect
      wait 1 seconds
```

Timer 57 Point 0

Sprite: data x: -189 y: -134

Show: [on] Size: 150 Direction: 90

main	yellow-box	data	java	beta
alpha	Sprite1	yellow-box2	data2	Sprite2
Sprite3				

Stage Backdrops: 2

Backpack

Show all



4

Code Costumes Sounds

Variables

- Make a Variable
- box
- my variable
- Point
- Timer

Control

- set box to 0
- change box by 1

Sensing

- show variable box
- hide variable box

Operators

- Make a List

My Blocks

- Make a Block

```
when clicked
  forever loop
    if (box = 2) and (touching yellow-box) then
      change Point by 1
      start sound Collect
      wait 1 seconds
```



Sprite: data

Show: Size: 150 Direction: 90

main	yellow-box	data	java	beta
alpha	Sprite1	yellow-box2	data2	Sprite2
Sprite3				





5

Code Costumes Sounds

Variables

Make a Variable

box

my variable

Point

Timer

Control

set box to 0

change box by 1

show variable box

hide variable box

Variables

Make a List

```
when clicked
  forever
    if (box = 3 and touching yellow-box ?) then
      change Point by 1
      start sound Collect
      wait 1 seconds
```

Timer 57 Point 0

Sprite java x -70 y -128

Show Size 150 Direction 90

main yellow-box data java beta

alpha Sprite1 yellow-box2 data2 Sprite2

Sprite3

Stage Backdrops 2



6

- Motion
- Looks
- Sound
- Events
- Control
- Sensing
- Operators
- Variables
- My Blocks

Variables
Make a Variable

- box
- my variable
- Point
- Timer

- set box to 0
- change box by 1
- show variable box
- hide variable box

Make a List

My Blocks
Make a Block

```
when clicked
  forever
    if (box = 4 and touching yellow-box) then
      change Point by 1
      start sound Collect
      wait 1 seconds
```

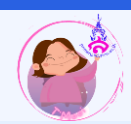
Timer 57 Point 0

Sprite: beta x: 65 y: -127

Show: [] Size: 150 Direction: 90

main	yellow-box	data	java	beta
alpha	Sprite1	yellow-box2	data2	Sprite2
Sprite3				

Backdrops: 2



7

Code Costumes Sounds

Variables

Make a Variable

box

my variable

Point

Timer

set box to 0

change box by 1

show variable box

hide variable box

Make a List

```
when clicked
  forever
    if (box = 1 and touching yellow-box ?) then
      change Point by 1
      start sound Collect
      wait 1 seconds
```

Timer 57 Point 0



Sprite: alpha x: 192 y: -129

Show: Size: 150 Direction: 90

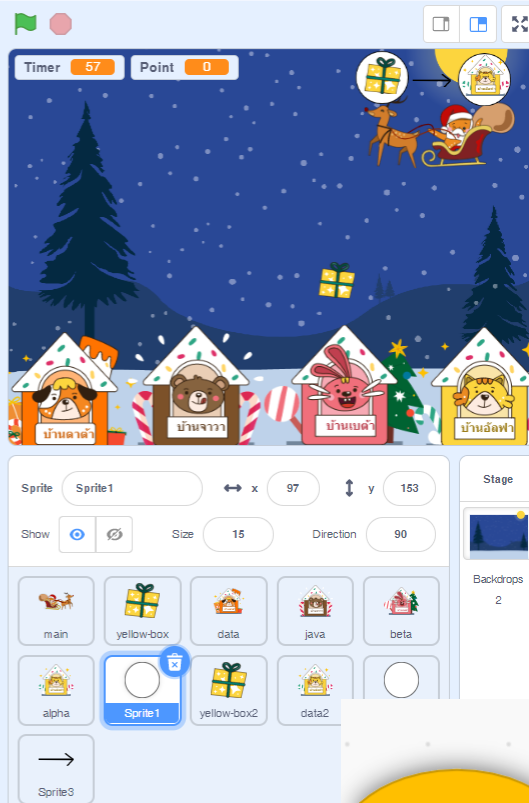
main	yellow-box	data	java	beta
alpha	Sprite1	yellow-box2	data2	Sprite2
Sprite3				

Stage Backdrops 2

when  clicked



set ghost  effect to 20

8



Timer 57 Point 0

Sprite Sprite1 x 97 y 153

Show   Size 15 Direction 90

Backdrops 2

main yellow-box data java beta

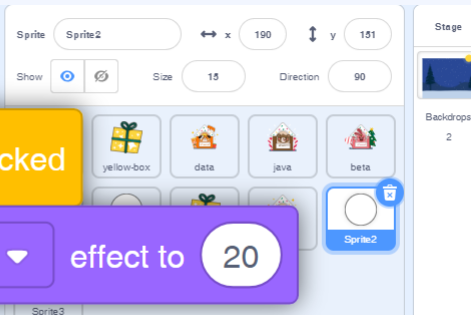
alpha **Sprite1** yellow-box2 data2

Sprite3



9

when  clicked

set ghost  effect to 20



Sprite Sprite2 x 190 y 151

Show   Size 15 Direction 90

Backdrops 2

yellow-box data java beta

Sprite2

Sprite3

when  clicked

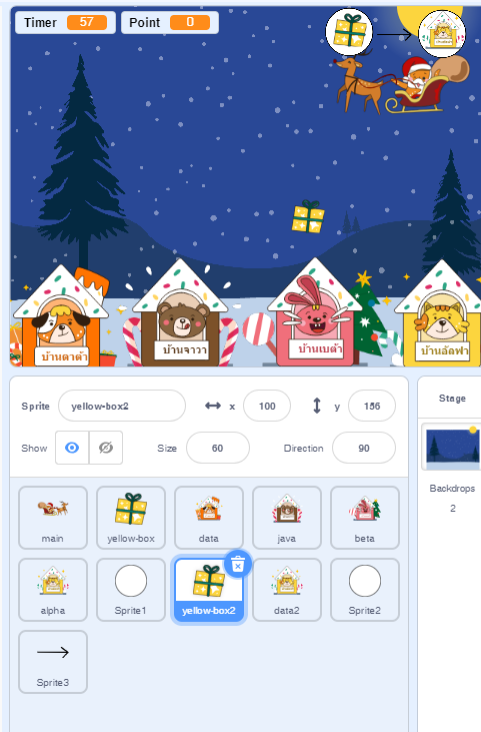
show

go to front  layer

forever

switch costume to  box

10




11

when  clicked

show

go to front  layer

forever

switch costume to  box

