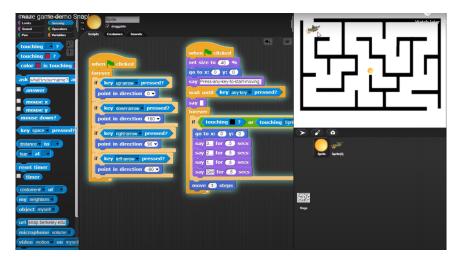
# Snap! Game of Maze Project UBMS Snap! Programming Summer 2023

 $June\ 27,\ 2023$ 

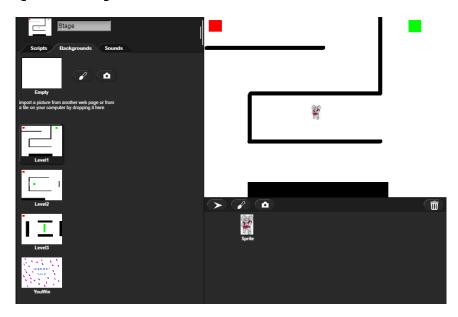
## Objective



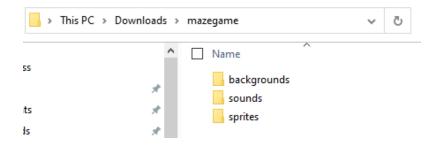
We're going to code a game of maze together - you can then refine and finish the game on your own at will.

Upload the finished game to the Snap! cloud and upload the URL as usual to Canvas for practice points.

#### Step 1: setup



- 1. Download the sprite, background and sounds as a ZIP file: tinyurl.com/5n8xke8z
- 2. Extract the file on your PC:



- 3. Create new Snap! project and save it as mazegame
- 4. Set up *sprite*, *backgrounds* and *sounds*:
  - Set up (draggable) sprite player
  - Set up sprite sounds for buzzer (wall), clap (level up)
  - Set up stage sound for winning the game (yea)
  - Set up stage backgrounds: three levels and final screen

#### Step 2: sprite script

- 1. Open the player script editor
- 2. Make a new Motion block and call it MovePlayer



3. Make a start script (green flag) that moves the player back to the starting position (x = -218, y = 160)



4. Set up keyboard actions for arrows

```
when down arrow key pressed
MovePlayer 180
when up arrow key pressed
MovePlayer 0
when left arrow key pressed
MovePlayer 270
when right arrow key pressed
MovePlayer 90
```

5. Modify the MovePlayer block

```
+ MovePlayer + direction +

point in direction direction

move 10 steps

if touching ?

go to x: -218 y: 180

play sound buzzer •

if touching ?

say Level·completel·Next·level for 2 secs

go to x: -218 y: 180

play sound clap •

broadcast rext-level • •
```

Step 3: stage script

1. When game starts, switch to level1



2. When next-level broadcast is received, change costume and play winning sound when all levels are finished

```
when I receive next-level

next costume

if costume # = 4

play sound year
```

3. Link to the final game

### Refine the game

- Moving obstacles
- A monster follows the player
- Add a variable to track prize points and penalties
- Add a timer

#### Sources

Video examples:

- $\bullet$  CSP-Alabama (Sep 1, 2014). Unit 3: Maze Game Example. URL: youtu.be/wlz08UEql9k
- Joe Haas (Jul 11, 2020). maze game demo Snap! URL: youtu.be/bi94erkDXdE

Many more maze game examples are on snap.berkeley.edu.