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Game Development Using Buildbox

Actions and Labels

ACTIONS

5.1 What is Action

Actions are mostly configured from the parent in the object bar to the left. The easiest way to add a character, platforms (object), Actions and backgrounds is to drag and drop a PNG file onto the scene editor. As soon as the mouse is over the scene editor you will see the following overlay. Drop the PNG file onto the relevant segment. You should see the item appear in the asset bar on the left, and also appear in the current scene you are editing.
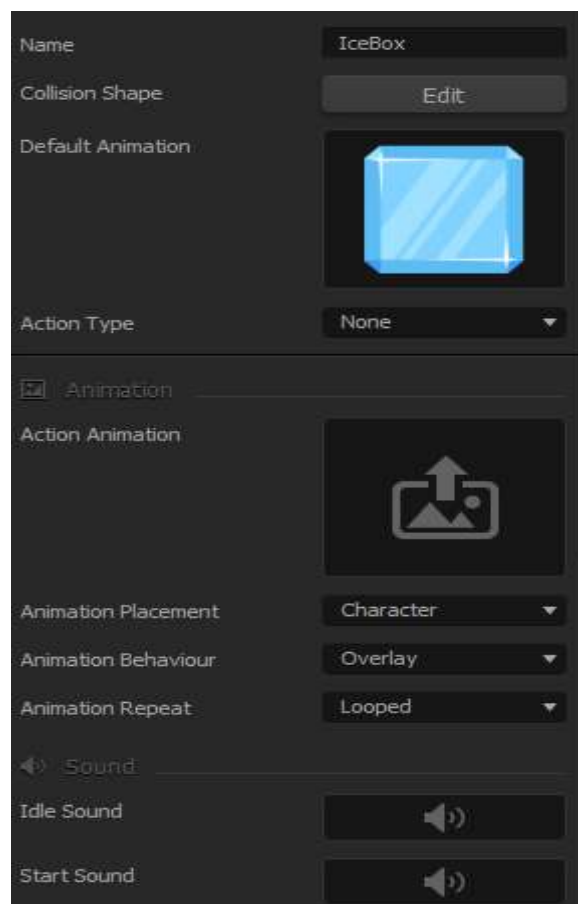

5.1 World Screen

Action Properties:
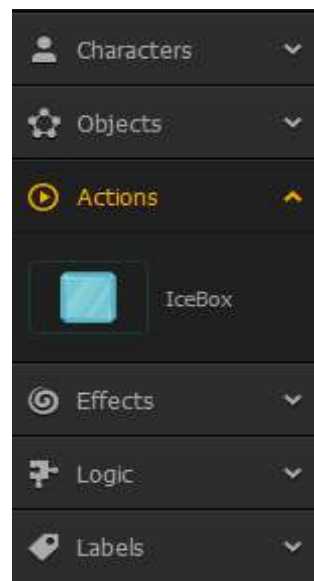
5.2 Assets Panel

All other settings are done by opening Actions on the left hand toolbar, and clicking on the action object found there. These options you can set are found on the right, once the action object is selected:

Name	IceBox
Collision Shape	Edit
Default Animation	
Action Type	None ▼
🖼 Animation	
Action Animation	
Animation Placement	Character ▼
Animation Behaviour	Overlay ▼
Animation Repeat	Looped ▼
🔊 Sound	
Idle Sound	🔊
Start Sound	🔊

5.3 Options Panel

Name: The first option available is the name. This name is not shown throughout the game and won't be visible to the users.This is just a name for your purposes. It is best to choose a name easy to remember and easy to identify your character by.
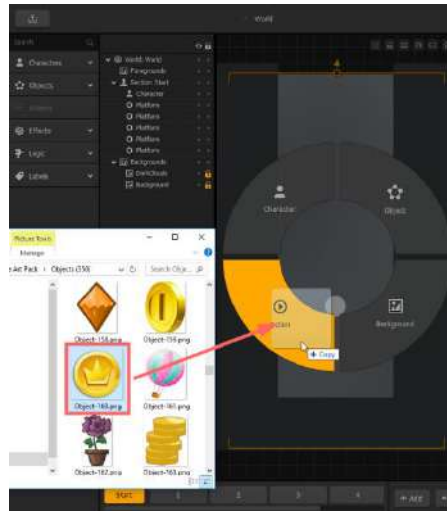
Collision Shape: The collision shape could be said to the most important part of your game, as without them, you couldn't function. They are used every time your game kills an object, bounces an object, or even just stops an object. All these things happen when two game element's collision boxes collide, or when an object's collision box collides with the game boundary.

Default Animation: This is where you can drag your image or animation for your Action object while it is idle.
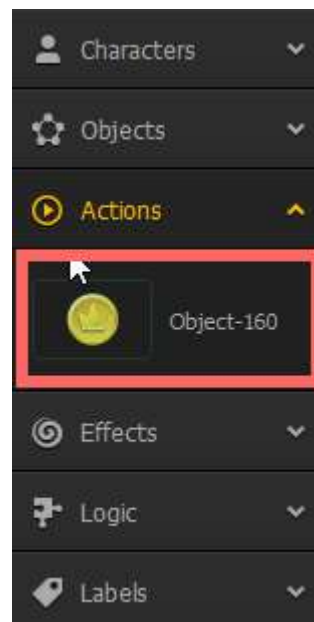
5.2 Action Types:

1. Coin:

Do nothing but add a Reward number of coins to the player's coin collection. The advantage of the coin based game is you can use it for in game currency. You can lock characters and levels and unlock it using coins collected. I dragged a coin image in the Action portion of the Buildbox wheel.

5.4 Scene View

Selected the coin in the assets panel on the left hand side.

5.5 Assets panel

And selected the option below on the right hand side.

5.6 Options Panel

- **Reward Coins:** How many coins will it take to print the score on screen per coin.

2. Kill All Enemies:

Kill all objects of type Enemy that have Destroy set to "Destroy Character" and are active (i.e. objects are not asleep).

3. Invincibility:

To make the player invincible for a time, and will kill enemies on contact.

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4. Powerup Magnet:

Suck Powerup Actions (such as coins and abilities, but excluding Checkpoints) toward the character while active.

5. Strike:

When collected, a button when pressed will kill enemies in contact with the player.

6. Set Checkpoint:

To set a checkpoint, that will be used for Restart From Checkpoint button.

7. Next Checkpoint: To move player character to next checkpoint.

8. Restart Checkpoint: To give ability to restart at last checkpoint.

9. Gameplay:

Allow any gameplay property to be changed. Will allow the Gameplay properties options to appear. Any game play property found in Project Settings can be changed.

5.3 Animations:

1. Action Animation: PNG Drop Box for the animation to play when triggered.

2. Animation Placement:

- **Character:** Animation plays on character.
- **Action:** Animation plays on Action location.
- **Full Screen:** Animation plays full-screen.

3. Animation Behaviour:

- **Overlay:** Run animation OVER the location.
- **Replace:** Replace really only makes sense with placement of Action and Character. You could replace character animation to change what the playing character looks like while the Action is working. (For some examples, in an fantasy game you could have an animation of your character doing something with their hands for a Kill All Enemies action, or a cloud of smoke for Next Checkpoint)

4. Animation Repeat:

- **Looped:** Play animation continuously as long as Action is working.
- **Single Play:** Run animation once and stop.

5.4 Action Properties:

Sound:

- Idle Sound: Sound to play when Action is on screen and not yet collected.

- Start Sound: Sound to play when Action is initially triggered.

- End Sound: Sound to play when the Action finishes.

Properties:

- Reward Coins: How many coins will it take to purchase this Action. Leave to 0 if not purchasable.

- Show Coin Reward: Display the coin value when the player picks up the action.

- Reward Points: How many points will be rewarded for collection.

- Show Points Reward: Display the point value when the player picks up the action.

- Duration: How many seconds Action will remain in effect.

- Appearance Chance: A value of 100 will always show this Action, and anything less than this will show it sometimes. 50 would mean showing half the time the game is played.

Action Effects:

- **Camera Shake:** Shake the camera when Action is triggered.

- **Camera Flash:** Run a camera flash effect on the whole screen when Action is triggered.

Labels:

In Buildbox, labels are used to perform text options and to print scores on different modes that are distance based, points based and coins based. Each label mode contains three levels: best, current, and total.
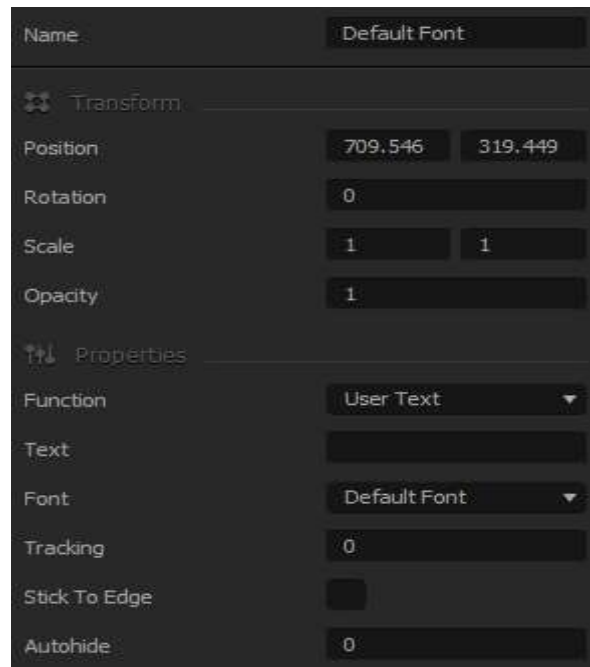
5.7 Basic Settings of Label

This is for display of fixed text, and a starting counter. The available settings are:

- **Name:** Internal reference only.
- **Position (x,y):** as for any other placed item.
- **Rotation:** angle in degrees that this should be rotated.
- **Scale (x,y):** You would usually leave this at a value of 1,1.
- **Opacity:** how transparent the text will be.
- **Function:**
  - o **User Text:** fixed text
  - o **Score:** To print/display game score.
  - o **Start Scene name:** Displays scene name in preview.
- **Alignment (Loading Counter only):** text alignment.
  - o **Left**
  - o **Centre**
  - o **Right**
- **Text (User Text only):** Type the text that you want to be displayed on the screen.
- **Font:** Select from the list of Fonts you have defined.

- **Tracking (User Text only):** Enter the number of pixels to adjust the spacing between the characters in the text.

- **Stick to Edge:** Tick to position text by the edge, instead of floating in the middle.

- **Autohide:** if non-zero, the amount of seconds before the text is hidden.

1. Distance based mode:

Let's go to the Mind Map by clicking the Menu Editor Button on the upper left hand corner then double click the World UI.

5.8 Game Ming Map

Once you have the World UI opened, let's drag a Label to your desired area where you want to see your score.
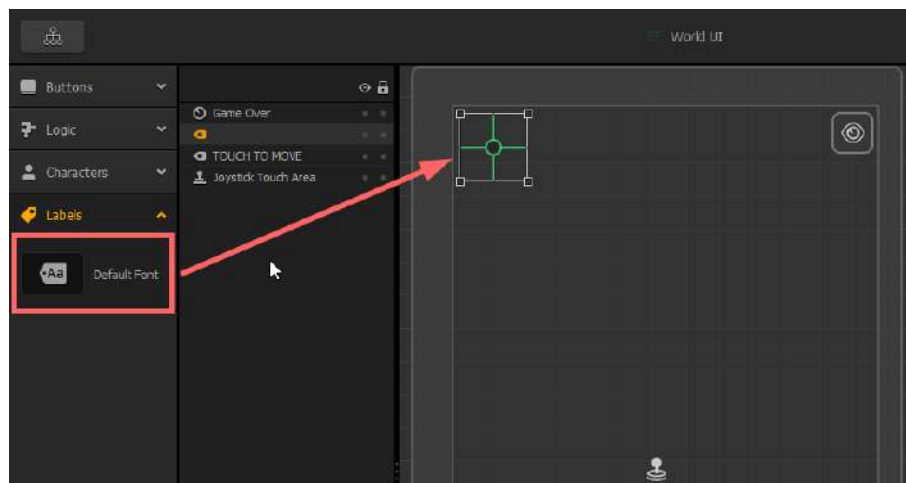
5.9 World UI Screen

While your Label is selected, scale it down to your desired size, set function to Score, then select distance and current as seen in the illustration below.
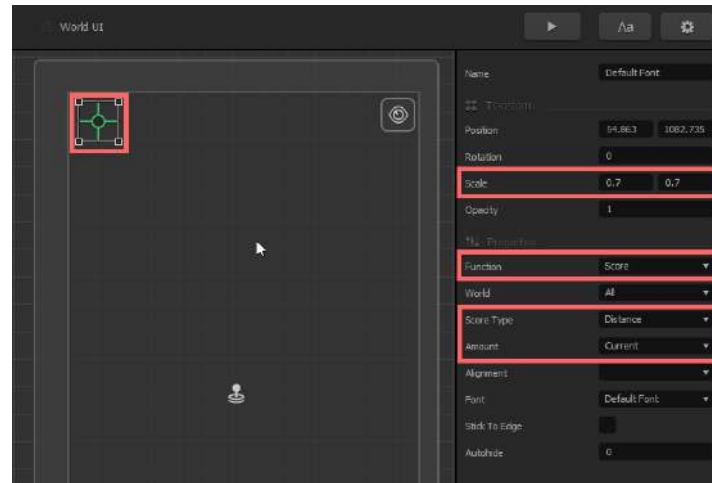
5.10 World UI Screen

Now let us go back to the Mind Map and double click the Game Over UI.
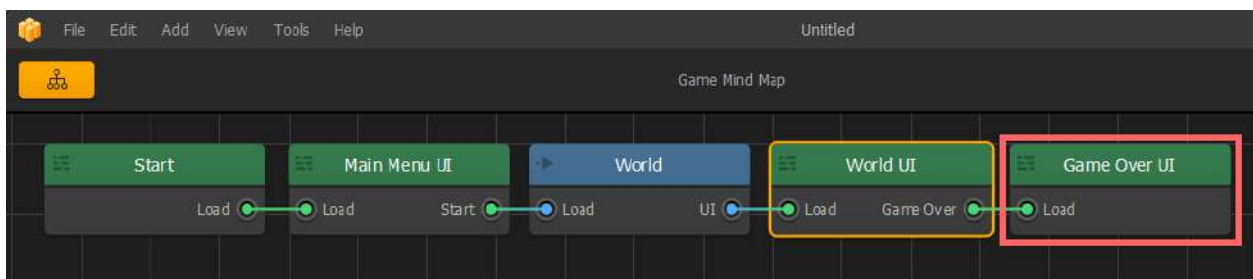
5.11 Mind Map

Dragged 2 labels for the current and best score.
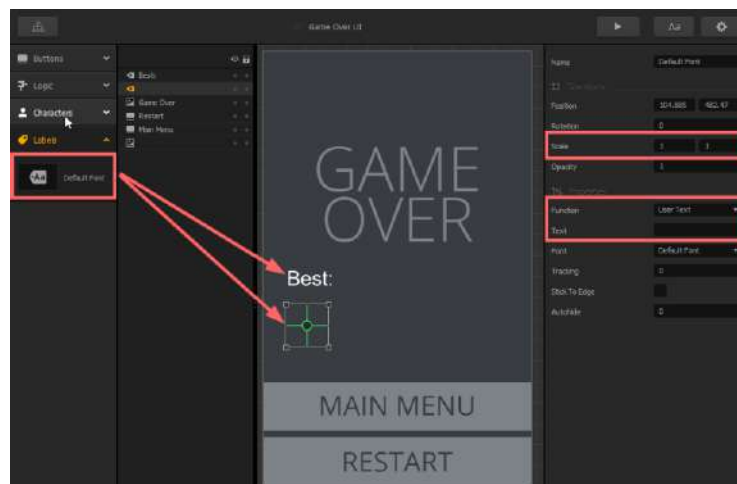
5.12 Game Over UI Screen

Scaled both labels down to 0.6 and then clicked the fonts on the over the upper right hand corner.
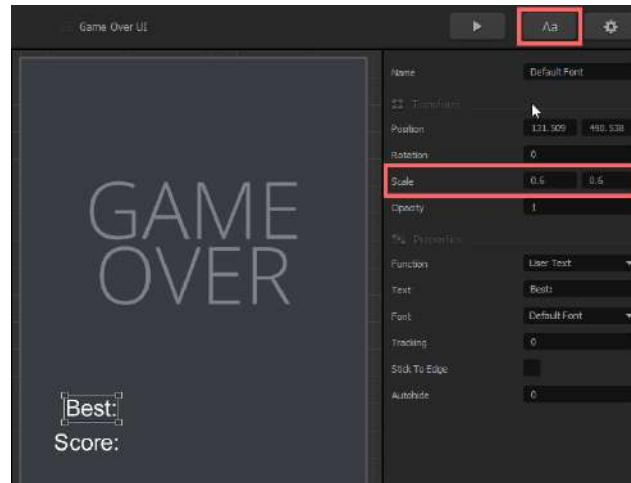
5.13 Game Over UI Screen

In this illustration, clicked on Main Color, a new window will open, Since you want something gray like the game over font, slid down the marker and clicked okay. Then closed the window.
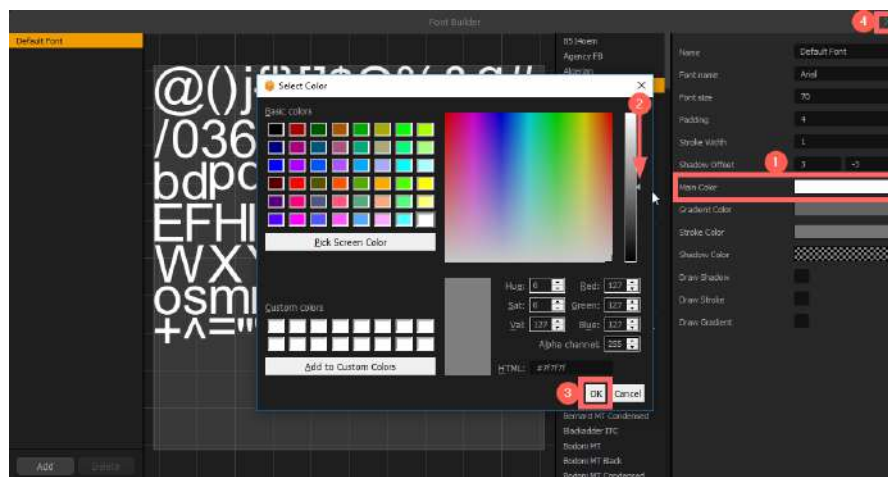
5.14 Color Changing Window

Now dragged another label and set the function as Score and amount to Best to get the best score.
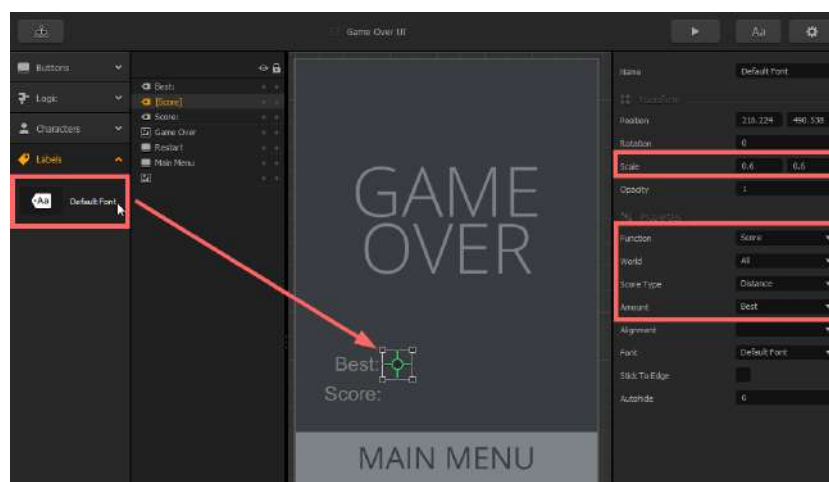
5.15 Game Over UI Screen

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Now dragged another label and placed it next to the score. This time we used Current as the amount.
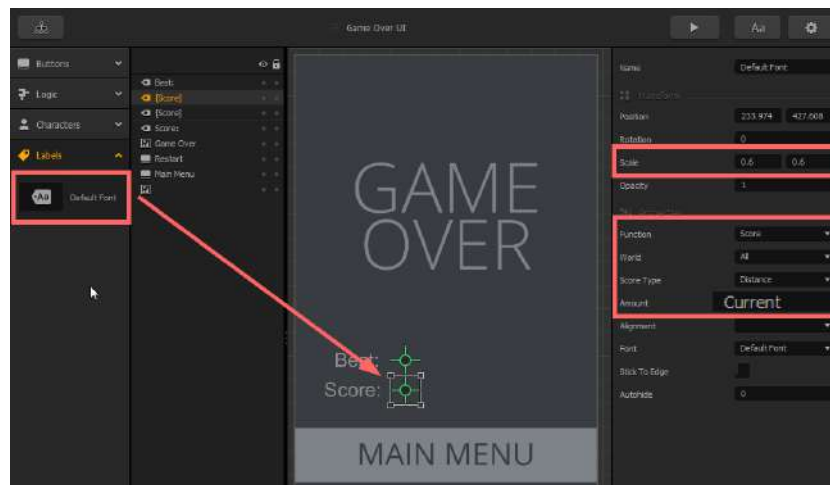
5.16 Game Over UI Screen

2. Point Based Mode:

Let us drag an image that we can use as an action.
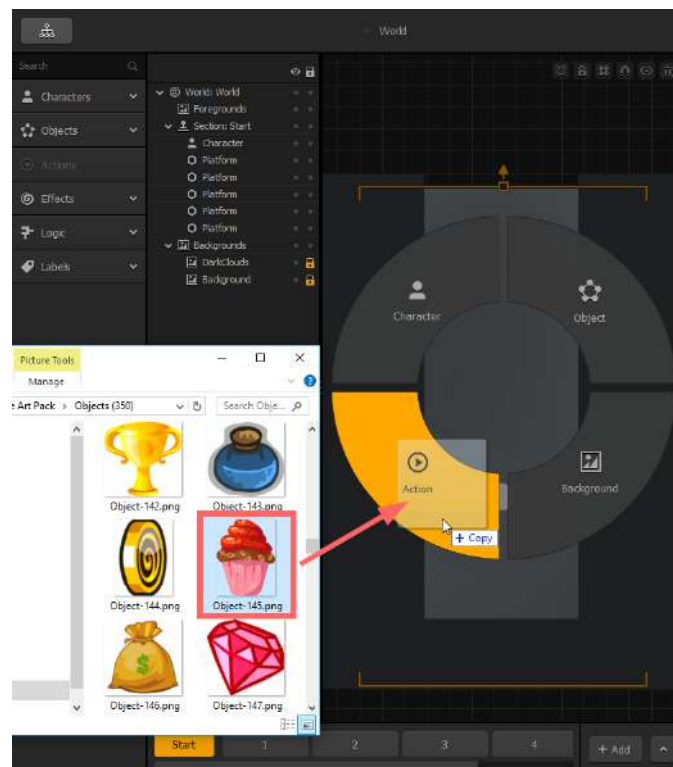
5.17 World Screen

Then selected the Action image on the left so we can edit its options.
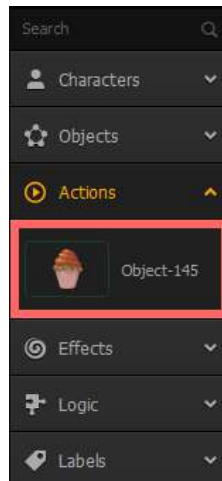
5.18 Assets Panel

Now on the options panel, Here renamed the image. Selected Coin as the action type.

Made reward coins to 0. And reward points to 1.

5.19 Options panel

Now copied the cupcake and pasted it in the scenes where we want it to appear.

Then I went to the World UI so I can add a label for scoring.

5.20 Mind map
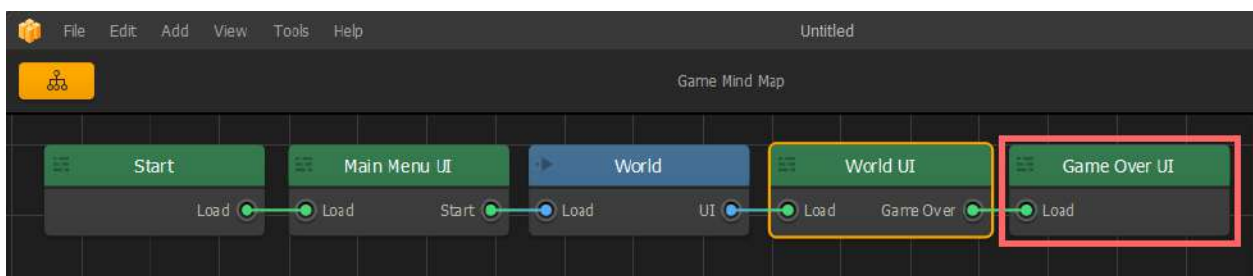
On the world UI, drag the label to my desired location.
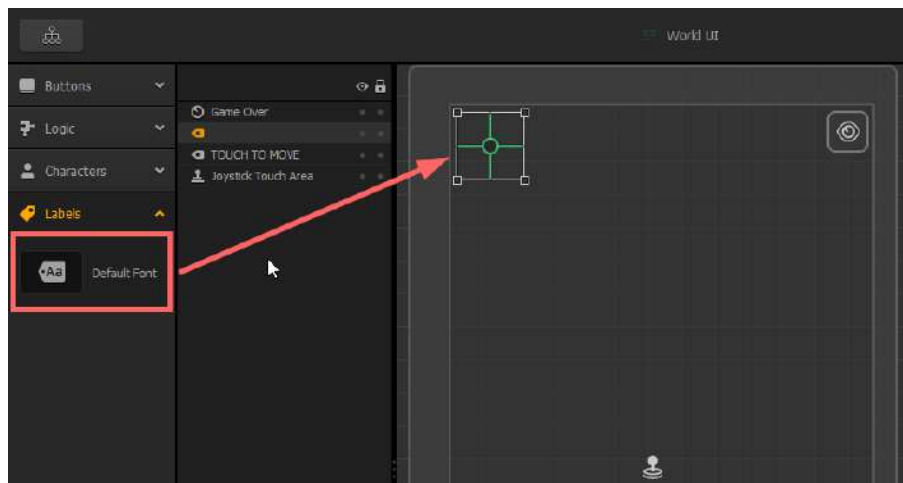
5.21 World UI Screen

And selected the option on the side. Let us make sure that the score type is set to Points and amount is Current.
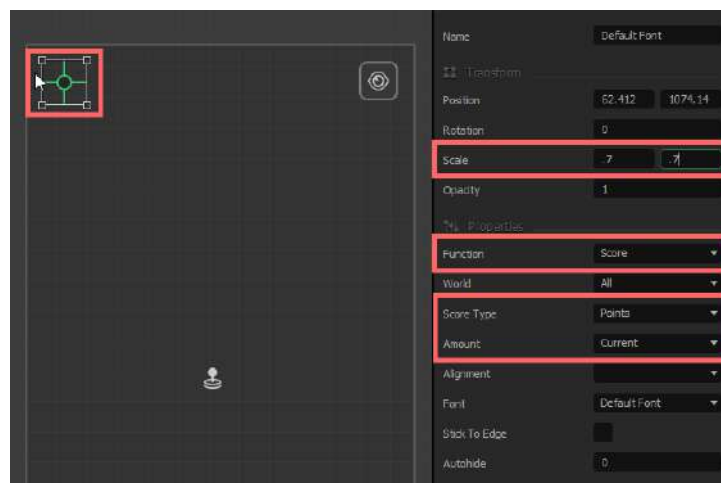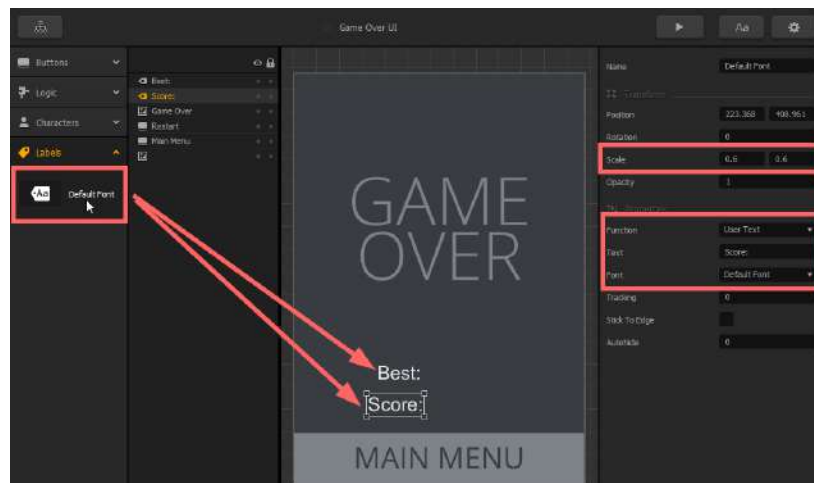

5.22 World UI Screen

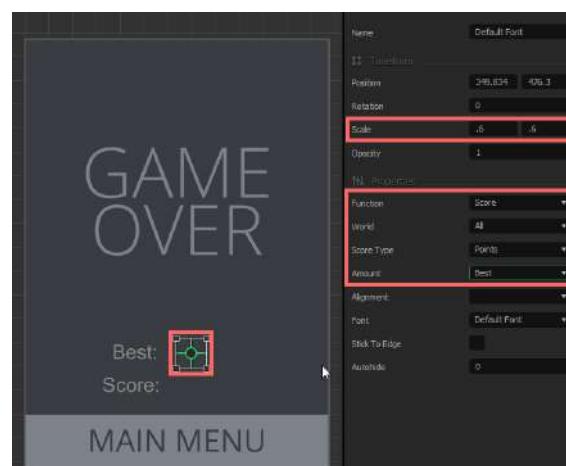Now let's go to the Game Over UI to set the current score and best score.

5.23 Game Mind Map

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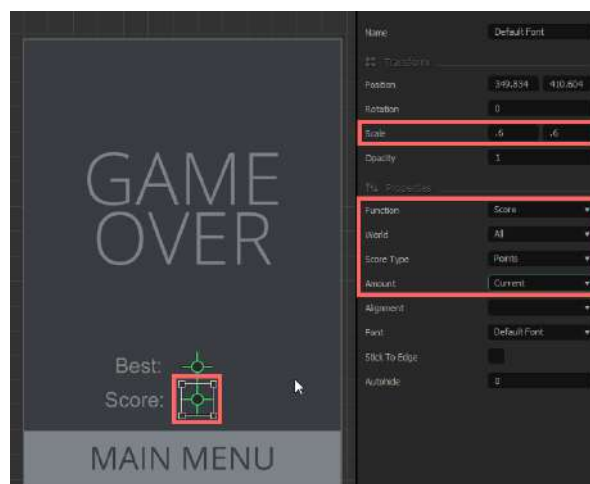I Drag 2 labels and scale it to 0.6. Edited the text to Best: and Score:.

5.24 Game Over UI

And another label for Best score scaled to 0.6. Function to Score. Score Type to Points. Amount to Best.

5.25 Game Over UI

And another for the current score. This has a Score Type of Points and Amount to Current.


5.25 Game Over UI

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3. Coin Based Mode:

Coin based games are pretty much the same with the point based one. The advantage of the coin based game is you can use it for in game currency. You can lock characters and levels and unlock it using coins collected. Below are the options selected for the Coin Based Game. Drag a coin image in the Action portion of the Buildbox wheel.
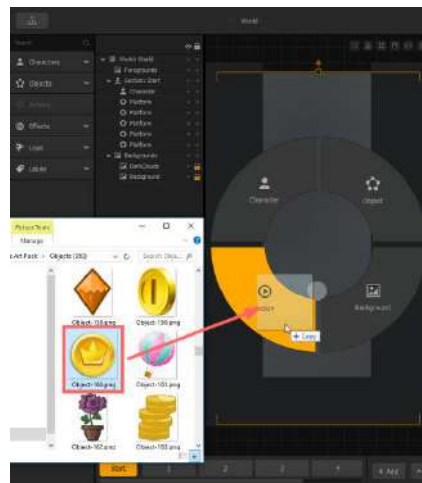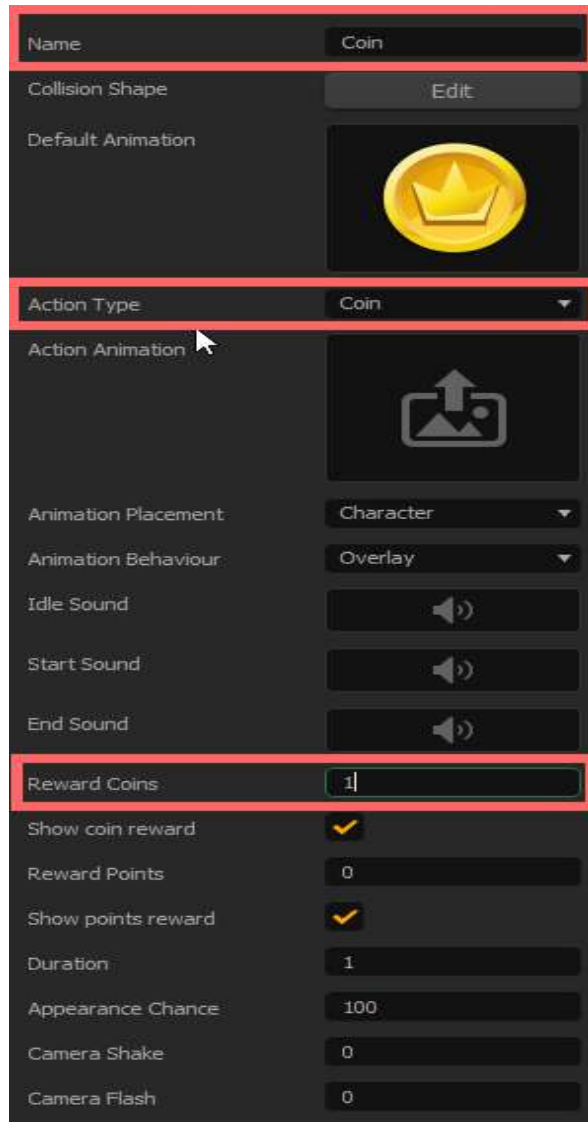

5.26 World Screen

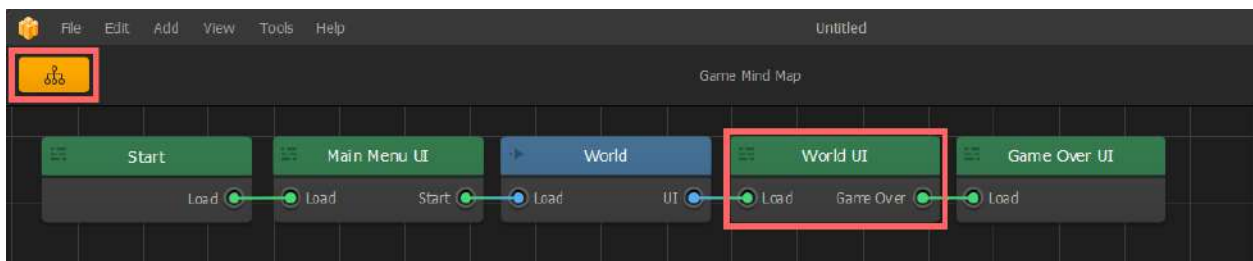Selected the coin in the assets panel on the left hand side.
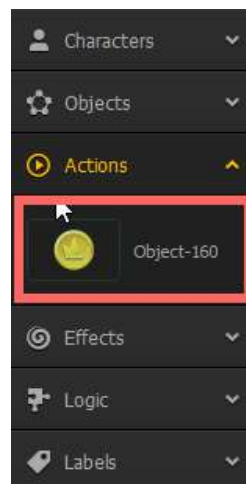
5.27 Assets Panel

And selected the option below on the right hand side.
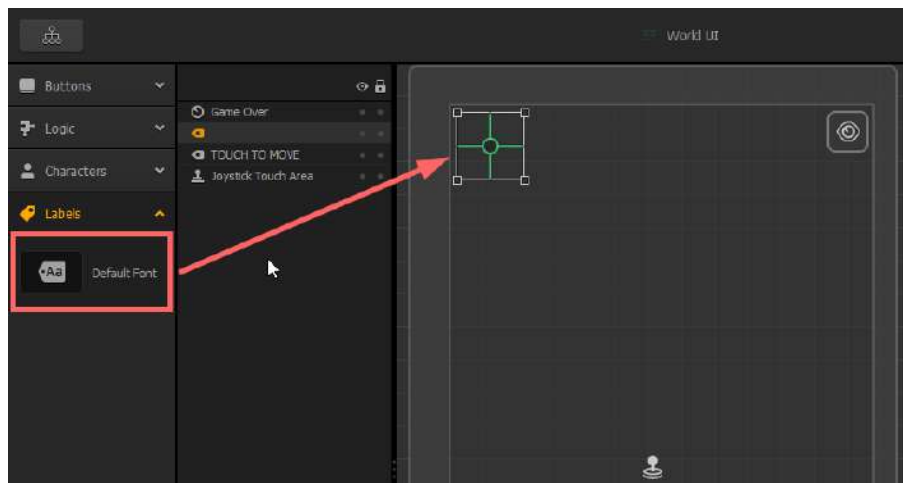

5.28 Options Panel

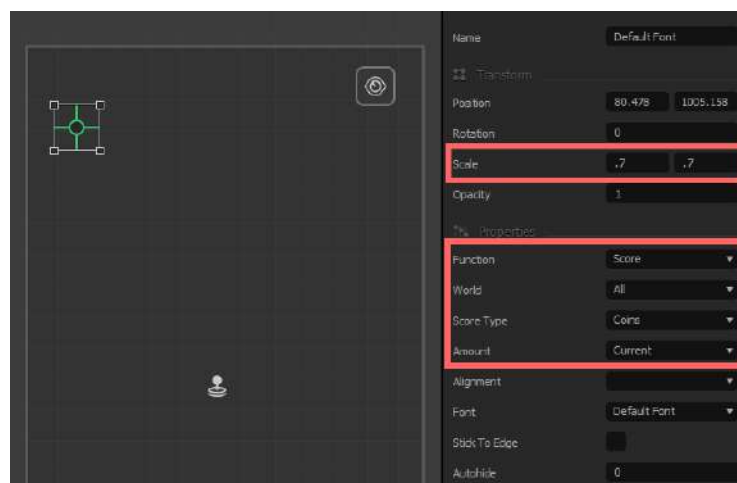Copied and pasted the coins to different scenes. Went to World UI.

5.29 Game Mind Map
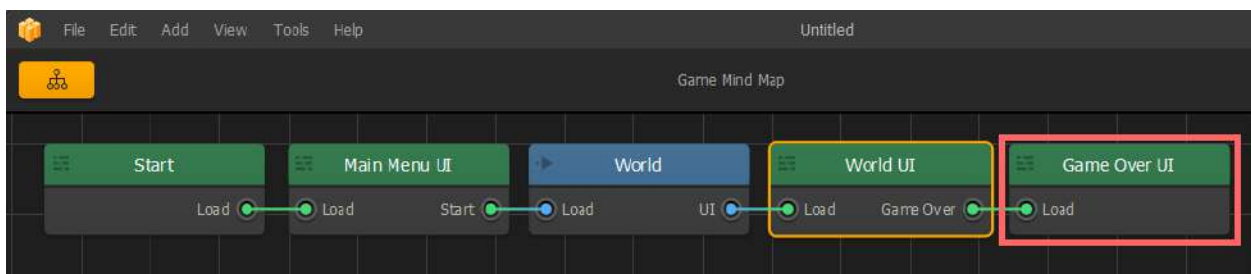
Dragged the label to my desired location.

5.30 World UI Screen

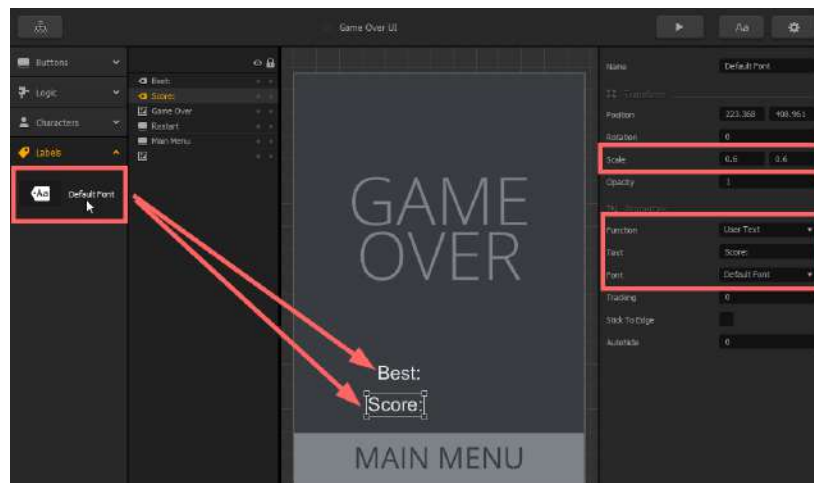And scaled it down. Here selected Coins as the Score Type.

5.31 World UI Screen

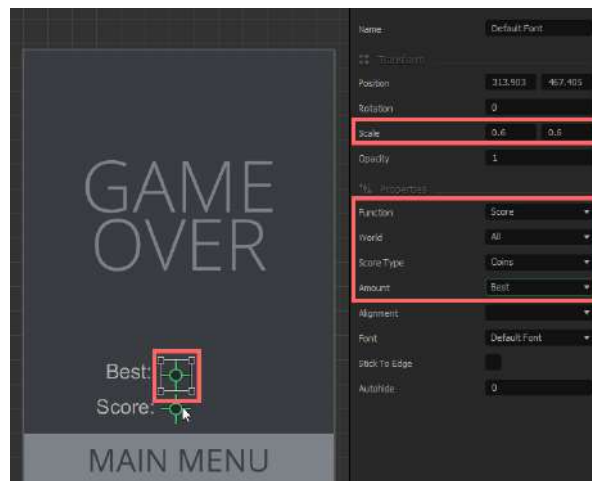Now let's go to the Game Over UI.

5.32 Game Mind Map

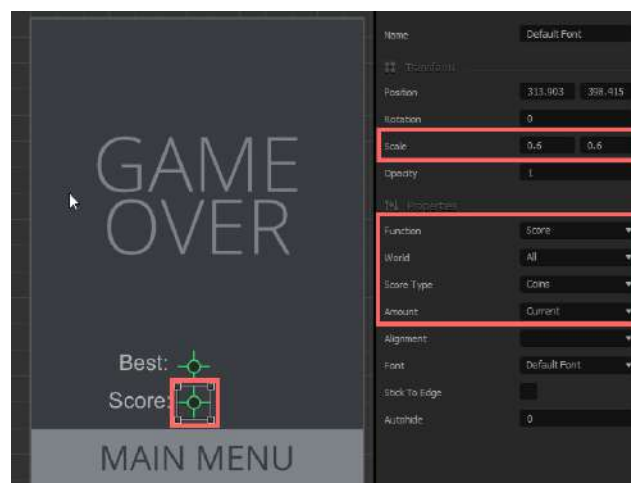Drag 2 Labels just like in the point based game.

5.33 Game Over UI

And made sure that Coins are selected as the score type and Best as the amount.

5.34 Game Over UI

And do the same thing. except that current is the amount

5.35 Game Over UI