

GAME250: Technical Game Development (Spring 2023)

In-Class Exercise 07

Objectives

By the end of this exercise, you'll be able to:

- Create your own functions
- Use your own functions

Mission Brief

The poker game is working great! But the Third Person Character blueprint ([Lab 06 Solutions](#)) is getting a bit too big. Let's split it up by replacing some of it with our own functions.

NOTE: the game in this exercise only needs to check for flushes (all five cards in hand are the same suit) and sets (1, 2, 3, or 4 of a kind).

Instructions

Download and unzip the UE4 project: [Exercise07_start.zip](#)

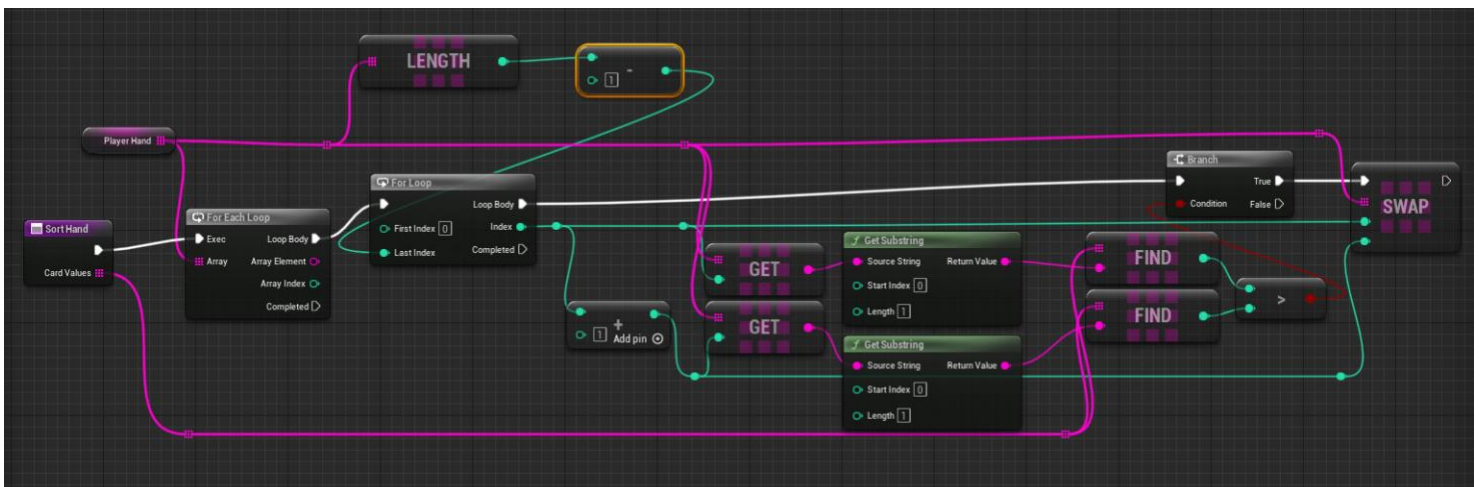
We will be converting three groups of nodes into functions: sorting the player's hand, checking for a flush, and checking for sets.

Sorting the Player's Hand

In the Third Person Character's My Blueprint tab, create a new function and name it Sort Hand.

This function will reorder the player's hand in increasing order, which requires the Card Values array from the Poker Table blueprint. The Card Values array will be an input to the function. On the other hand, there will be no outputs from the function since it just sorts the existing hand.

To add an input to the function, click the purple Sort Hand node, then find Inputs in the Details tab.



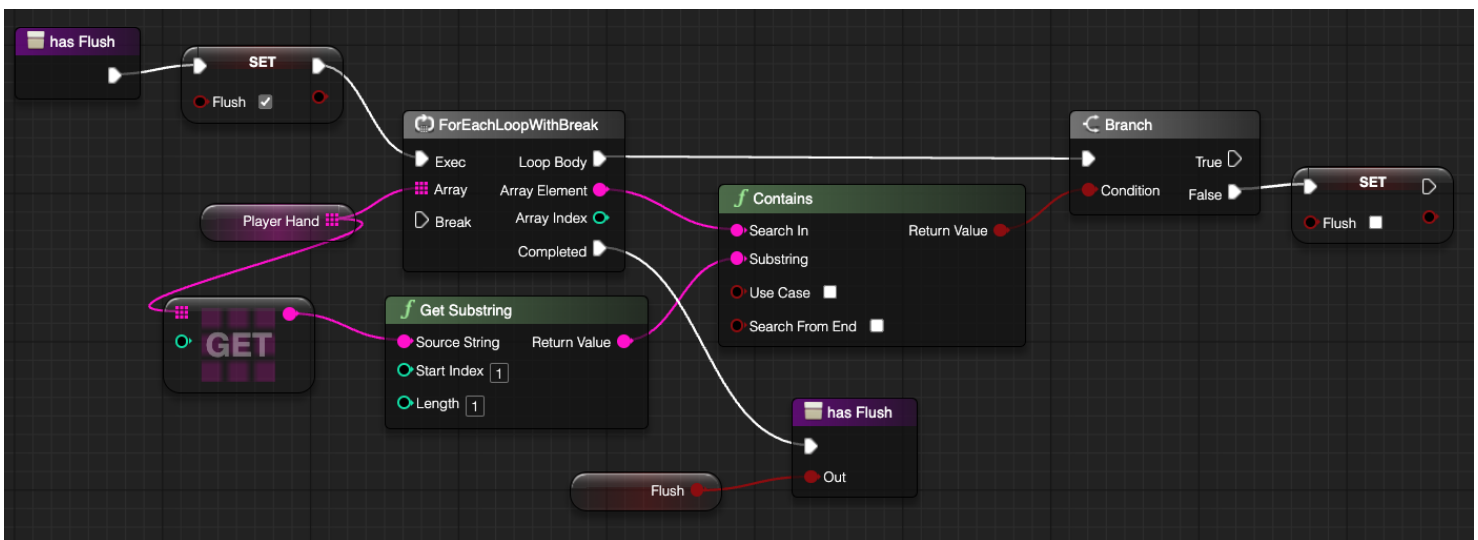
Using the Sort Hand Function

Back in the Third Person Character's Event Graph, you can replace the nodes inside the Sort Hand by Value comment box with a single node, the Sort Hand function! Make sure to send a wire from the Poker Table object's Card Values array into the node.

Checking for a Flush

Next, create a function named Has Flush that checks whether the player has a flush. This is a function that has no inputs, but has a Boolean output: true if the player has a flush, false if not. Also, this function can make use of local variables. The Flush variable that currently belongs to the Third Person Character can be turned into a local variable, which can only be used inside the Has Flush function. In the My Blueprint tab, find the Local Variables section and create a new variable named Flush (after deleting the one from Third Person Character).

After creating the function, replace the nodes in the Third Person Character's Event Graph with the Has Flush node. This time, properly use the Boolean output of the Has Flush node to make a proper print.



Now It's Your Turn!

Checking for Sets

Create your own function named NumOfKind and replace the nodes in the Third Person Character's Event Graph with it. This will be very similar to the HasFlush function, except NumOfKind has an output integer, for 1, 2, 3, or 4 of a kind. Again, make sure to properly use the output of the node to make a proper print.

Submission

Take a screenshot of the Third Person Character Event Graph and the NumOfKind function blueprint. Submit the screenshot(s) to Canvas before the deadline.