

MARIO KART

Position Weighted Item Boxes

CGT 425 PROTOTYPE 1 COMPLETE

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THE MECHANIC

CHAOS | RANDOM | LEVELING | EXCITING

RAGE-INDUCING | COMICAL | WEIGHTED | SKILLFUL



The item box in Mario Kart is set up so that players toward the back of the field have a higher chance to get more valuable items. At face value, the result seems random. but the system itself is incredibly complex to determine the probability to recieve each item. Somone in first has a net vero chance to recieve a game changing item, but the person in last could get something that could near instantly propel them into the top 3.

HOW IT WORKS

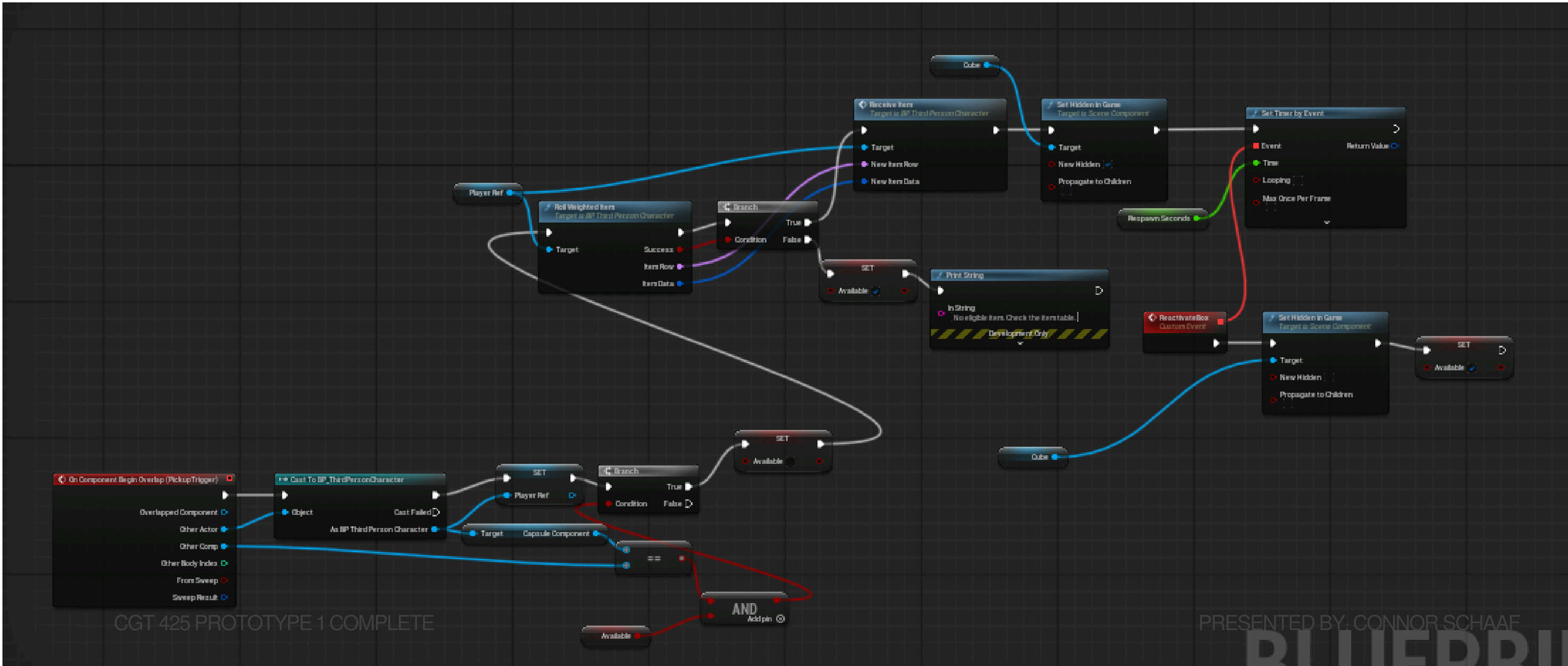


1: OVERLAP	Player Touches Item Box
2: VALIDATE + CLAIM	Check for Open Slot, Start Respawn Process
3: READ POSITION	Get Current Player Position
4: LOAD WEIGHTS	Choose the Prob Row for that Position
5: ROLL	Generate Item Result Based on Weight
6: REVEAL AND STORE	Show Player Item and Display it

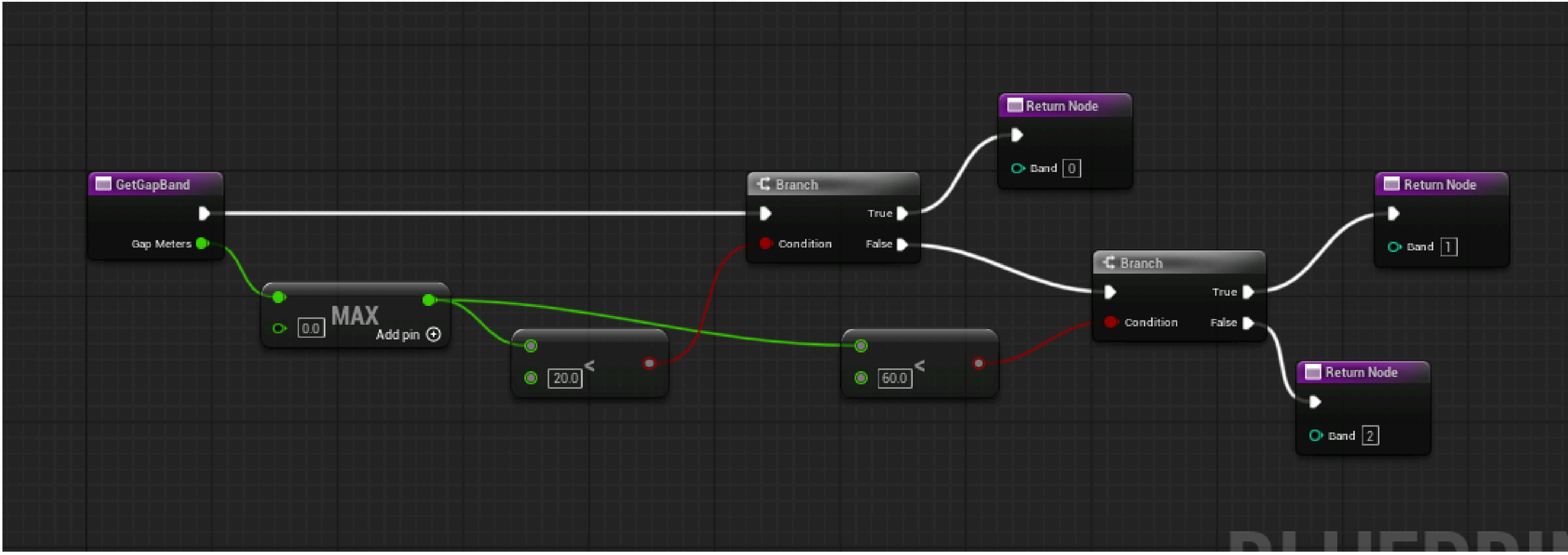
DT_ITEMODDS

	Row Na	DisplayName	PowerRank	P1	P2_Near	P2_Mid	P2_Far	P3_Near	P3_Mid	P3_Far	P4_Near	P4_Mid	P4_Far
1	Item01	Item 1	1	50	15	5	0	0	0	0	0	0	0
2	Item02	Item 2	2	30	35	15	5	15	0	0	0	0	0
3	Item03	Item 3	3	15	30	30	15	25	5	0	10	0	0
4	Item04	Item 4	4	5	15	25	25	30	15	5	20	0	0
5	Item05	Item 5	5	0	5	20	25	20	30	15	30	10	0
6	Item06	Item 6	6	0	0	5	20	10	30	30	25	20	10
7	Item07	Item 7	7	0	0	0	10	0	15	30	15	30	20
8	Item08	Item 8	8	0	0	0	0	0	5	20	0	30	30
9	Item09	Item 9	9	0	0	0	0	0	0	0	0	8	25
10	Item10	Item 10	10	0	0	0	0	0	0	0	0	2	15

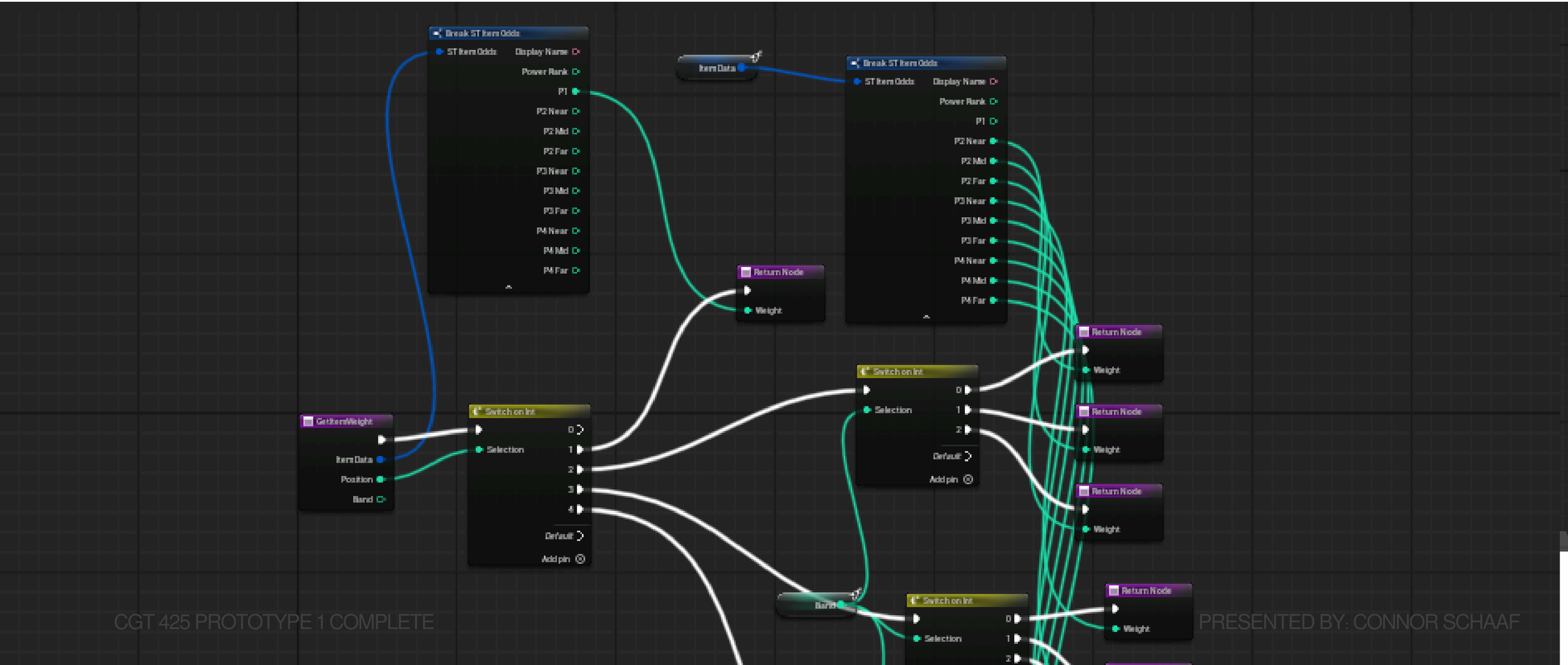
ITEM BOX


Cube
Receive Item
Target is BP Third Person Character
Target
New Item Row
New Item Data
Set Hidden in Game
Target is Scene Component
Target
New Hidden
Propagate to Children
Set Timer by Event
Event
Time
Looping
Max Once Per Frame
Return Value
Respawn Seconds
Player Ref
Roll Weighted Item
Target is BP Third Person Character
Target
Success
Item Row
Item Data
Branch
True
Condition
False
SET
Available
Print String
In String
No eligible item. Check the item table.
Development Only
ReactivateBox
Custom Event
Set Hidden in Game
Target is Scene Component
Target
New Hidden
Propagate to Children
SET
Available
Cube
On Component Begin Overlap (PickupTrigger)
Overlapped Component
Other Actor
Other Comp
Other Body Index
From Sweep
Sweep Result
Cast To BP_ThirdPersonCharacter
Object
Cast Failed
As BP Third Person Character
SET
Player Ref
Branch
True
Condition
False
SET
Available
Target
Capsule Component
==
AND
Add pin
Available

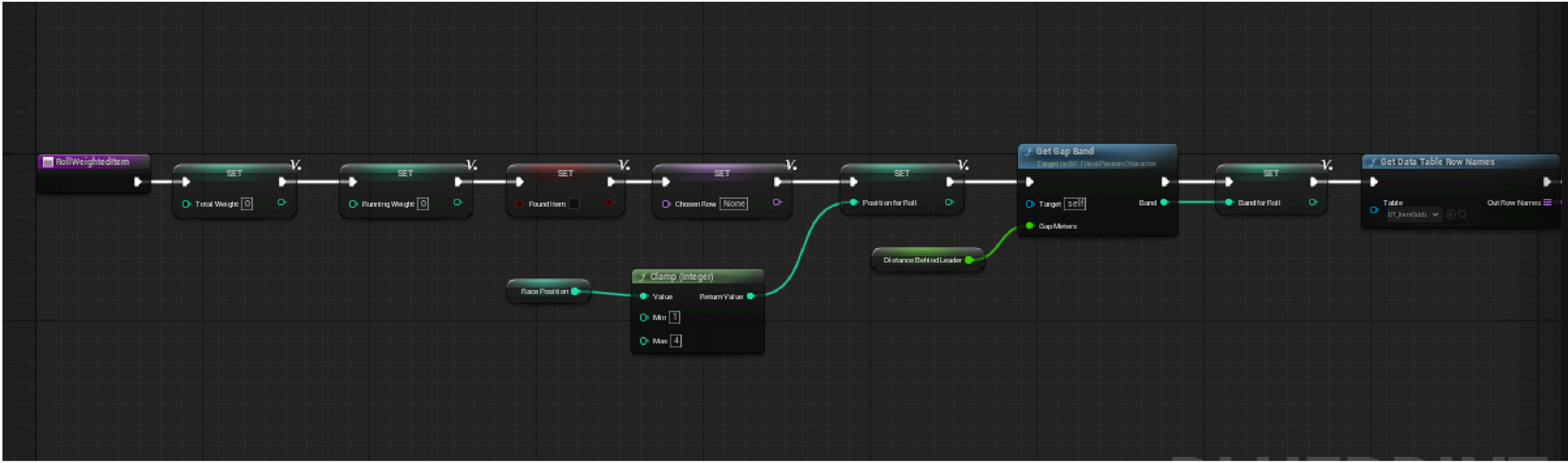
GET DISTANCE NUM



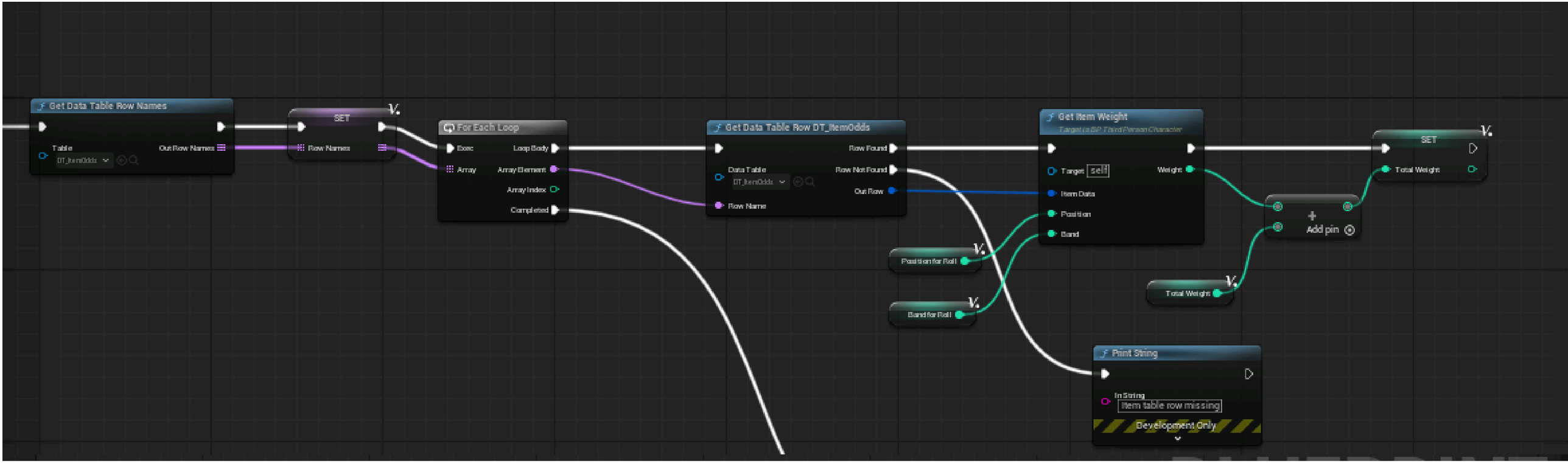
GET TABLE RELATION



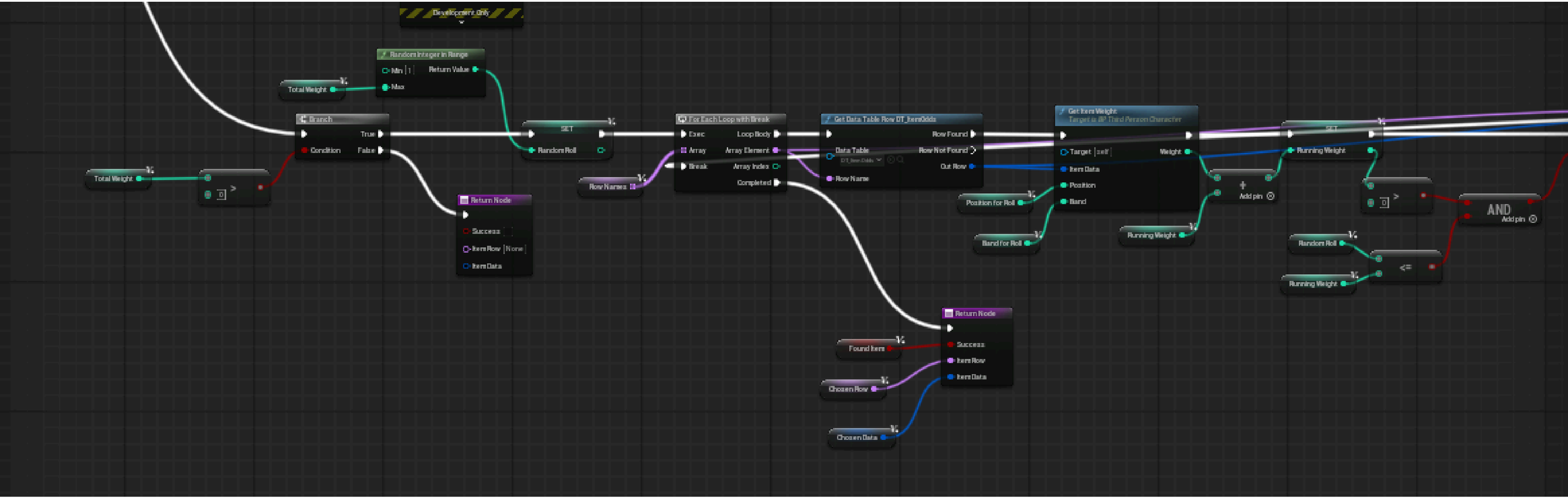
THE GOOD STUFF P1



THE GOOD STUFF P2



THE GOOD STUFF P3



WHAT WENT WELL, DIDNT, AND WHAT I LEARNED

- What Went Well: Pretty much everything, while it is a somewhat tedious concept, there was nothing that was too difficult to do in comparison to things I have done in the past.
- What Went Wrong: Had a few bugs first time around, all were fixed within 15 minutes of starting bug testing
- What I learned: Ironically, what I learned most has nothing too do with the system itself, but istead to do with UI. Because I made this to test alone, I had to have a system that could change the players position and distance. I used a combo box and spin box which I now realize are very useful tools I have never used before!