

# Unity “Parenting”

By John

# This is what your hierarchy probably looks like

Unity 5.5.0f3 Personal (64bit) - scene.unity - TeachingUni

File Edit Assets GameObject Component Window



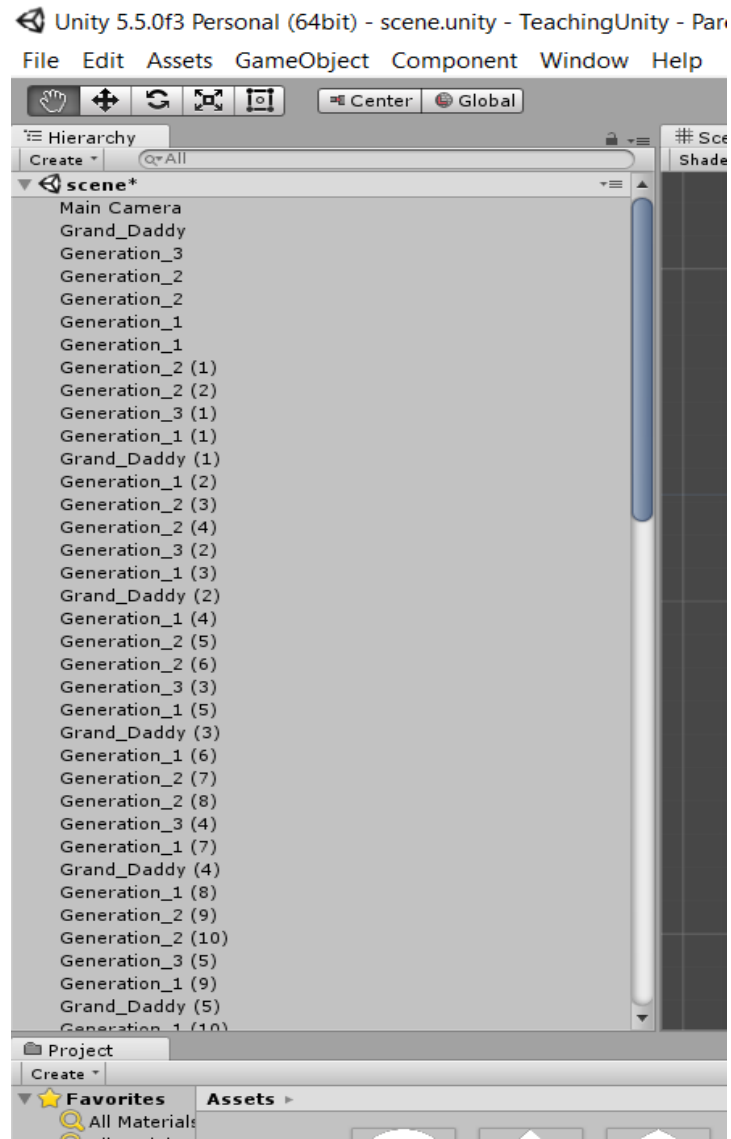
Hierarchy

Create ▾ Q All

▼ scene\*

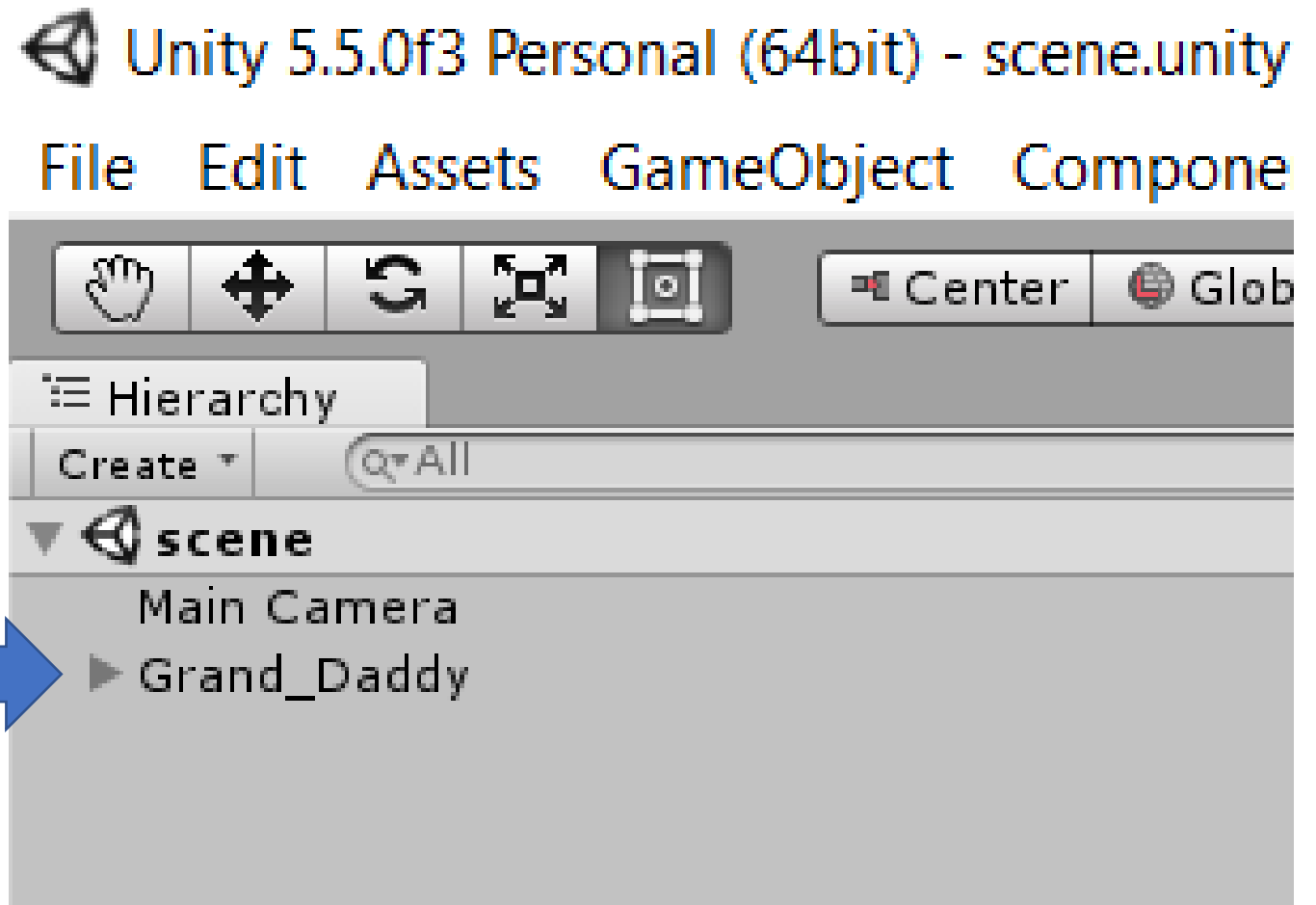
- Main Camera
- Grand\_Daddy
- Generation\_3
- Generation\_2
- Generation\_2
- Generation\_1
- Generation\_1

# What about complicated, large scenes?



# Unit's solution? Parenting!

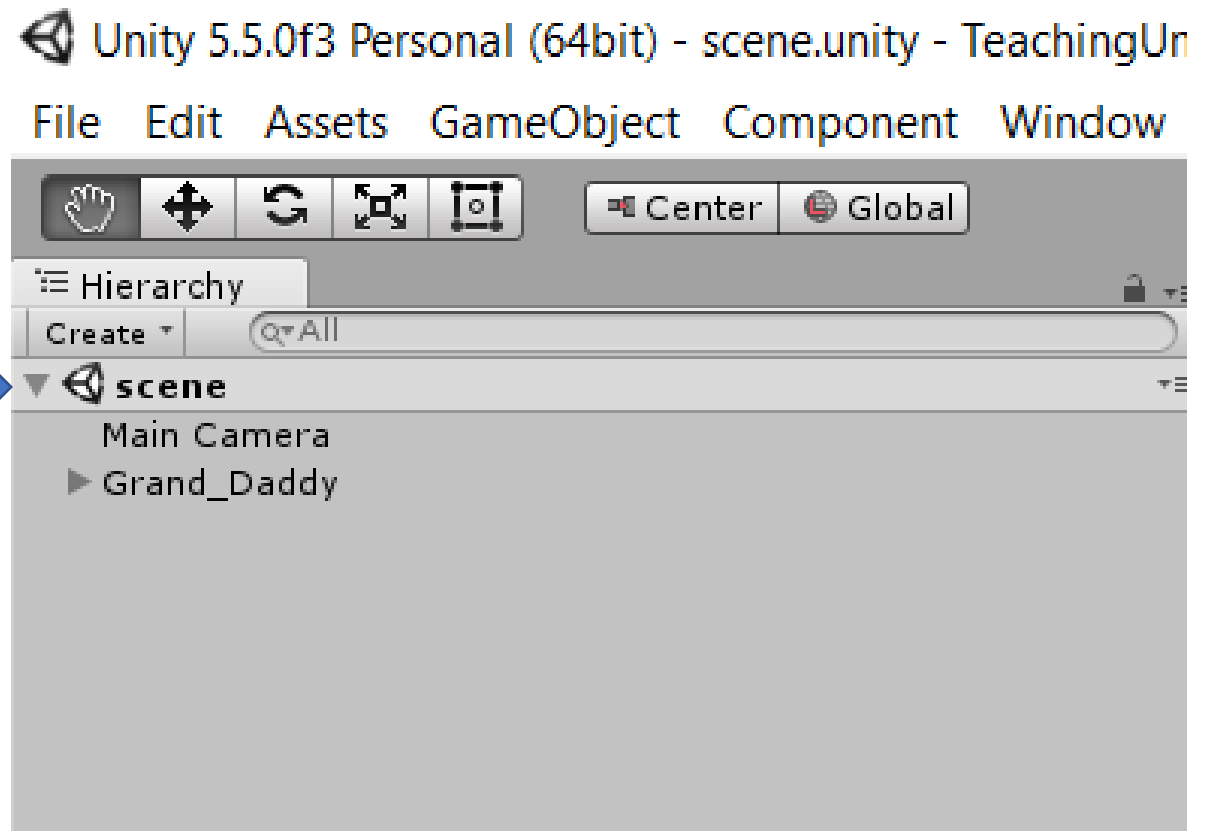
- Notice the little grey triangle



# Game-Objects have a “parent/child” relationship

- Technically, every Game-Object is a child of the “scene” Object, which is what you save when you press ctrl-S.

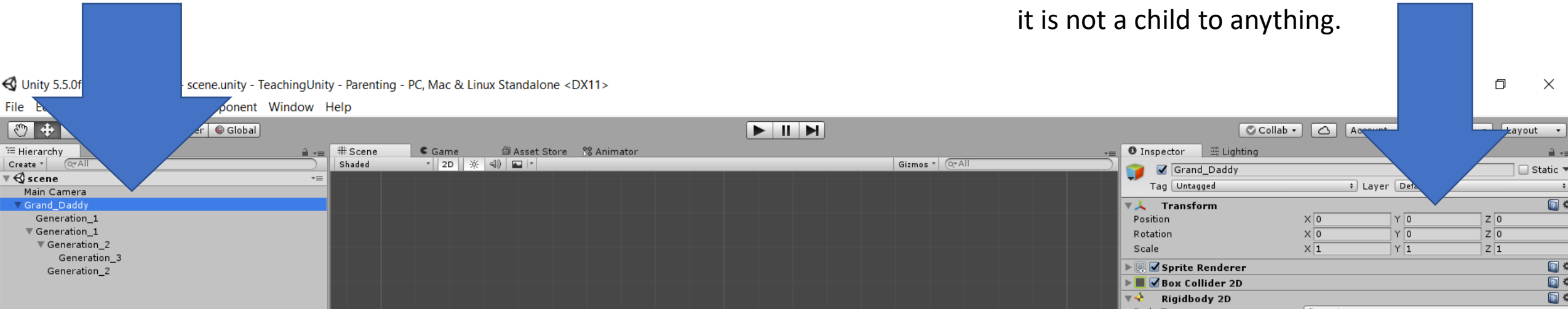
Again, notice the little grey triangle.



Every Game objects “transform” component (position, rotation, and scale) is now relative to the parent.

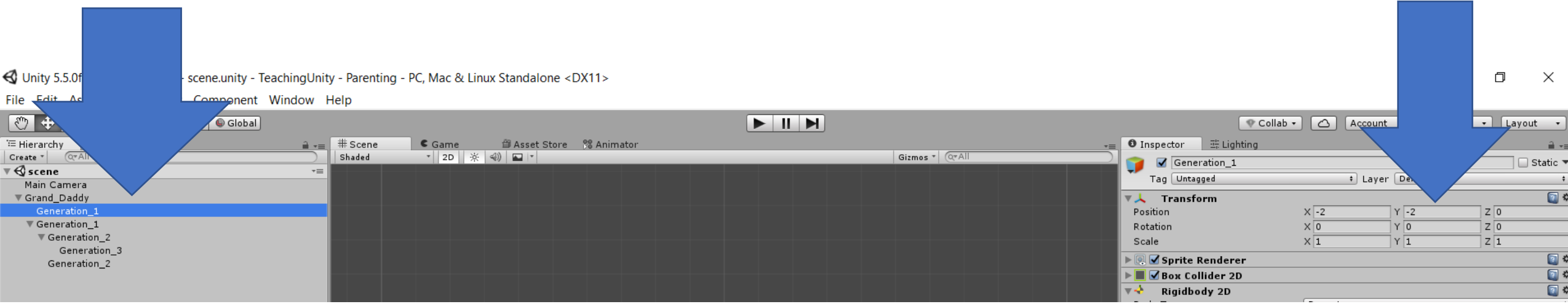
- Because of this, every game object has a “world position”, and a “local position”.

With the parent selected . . .



- The parent's "world position" is (0,0,0).
- The parent has no local position, because it is not a child to anything.

With the child selected . . .



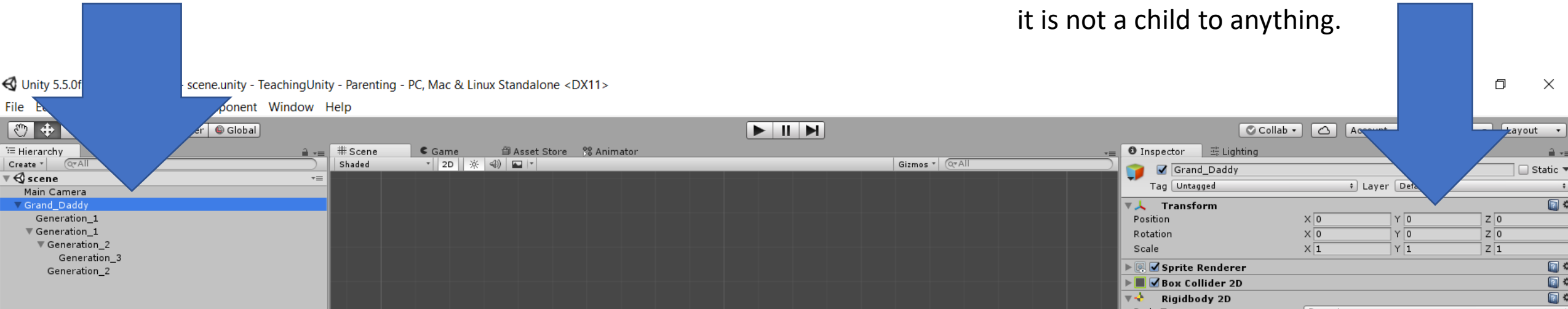
- The parent's "world position" is (-2 ,-2 ,0).
- The child's "local position" is (-2, -2, 0).

# What happens if we move the parent object?

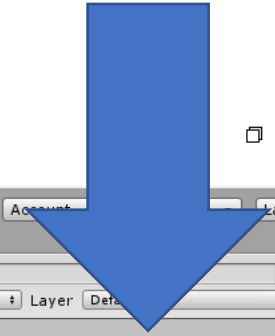
- If we move the parent object, the child's transform will follow. However, in the inspector, it will look the same. This is because the inspector shows the local position. If the Game Object does not have a local position, then it shows the World Position.



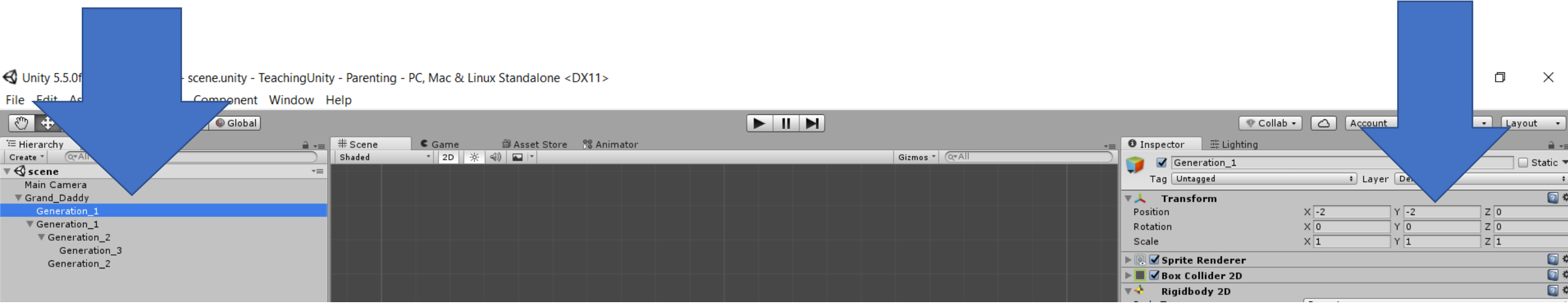
With the parent selected . . .



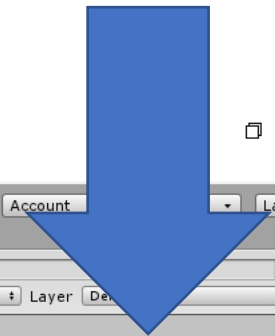
The parent's "world position" is (10,0,0).  
The parent has no local position, because  
it is not a child to anything.



With the child selected . . .



The parent's "world position" is (8,-2,0).  
The child's "local position" is still (-2, -2, 0).



# Think of it like a box.

- You can store things in a box.
- You can move a box, which will move the things.
- You can rotate a box, which will rotate the things.
- However, if you move the things, the box will not rotate
- If you rotate the things, the box will not rotate.

# TLDR;

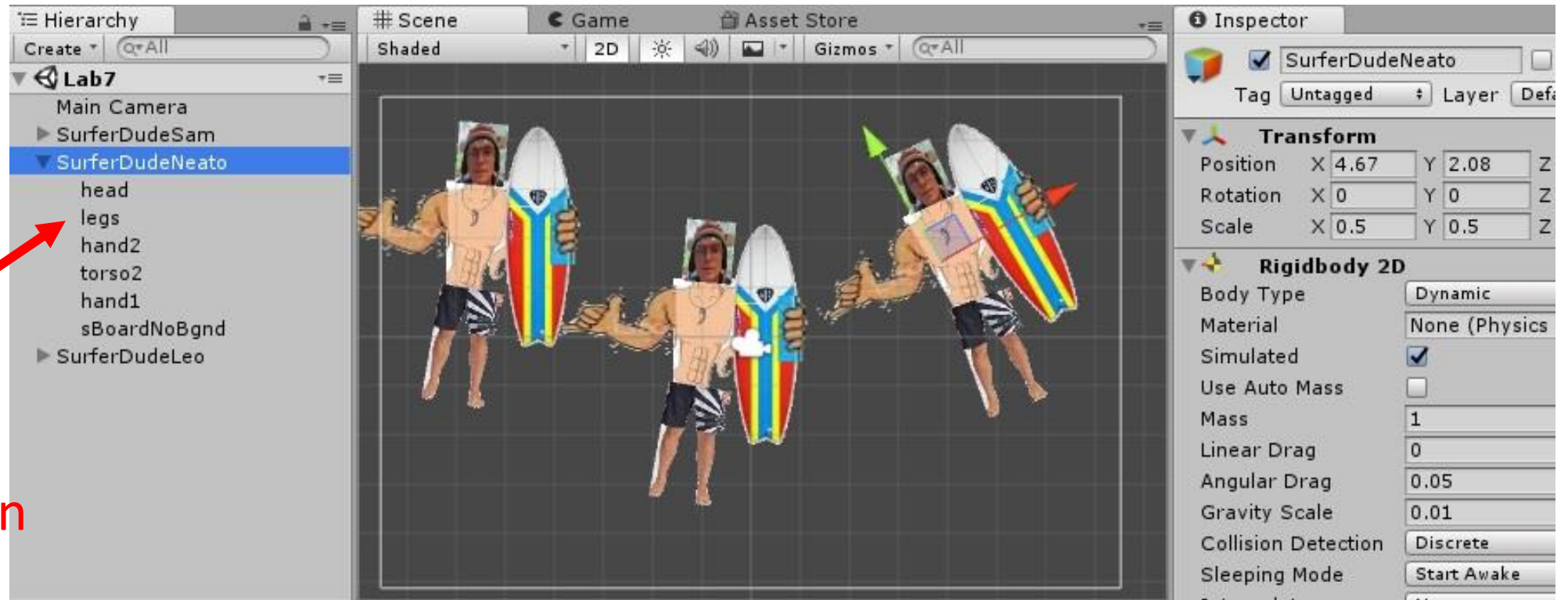
- Parenting is for organizing the Hierarchy.
- Changing the parent's transform changes the child's transform
- Change the child's transform DOES NOT change the parent's transform.

# Lab7

- This is a group lab (each person does the lab)
- Decide on a subject
  - Animal
  - Human
  - Automobile
  - Tree
  - ...
- Assign each group member a part of the subject
  - Joe – head
  - Mary – legs
  - Sam – arms...
- Share parts in discord (like when you passed your pics to your group)
- Make an empty GameObject (like the video)

# Lab7 - continued

- Rename the GameObject whatever the subject is (eg “surfer dude”)
- Assemble your GameObject using the parent-child hierarchy
- Make at least 3 duplicates of your new GameObject
- Rotate at least one of them
- Give at least one of them rigid body power
- Submit a screen shot like the following slide that shows your hierarchy



Make sure  
this is shown