**Box2D Contact Filtering**

In box2D, when you want to have bodies colliding with only a specific body, you are going to have to use contact filtering. All you have to do for contact filtering is to first of all set up all of your different bodies you are going to have in your world into shorts in your constants class since you won’t be changing them (Description of a short variable: <https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html>) (Also shorts have to be in exponents of 2, like 1, 2, 4, 8, 16,....). If you have a player then have a Bit\_Player, and the same goes for walls, enemies, and bullets. Once you have your bits set up, go to where you are making your box2D box and add in two lines:

(whatever your fixture definition is).filter.categoryBits = cBits; (cBits are the category bits you

pass to your function)

(whatever your fixture definition is).filter.maskBits = mBits; (mBits are the mask bits you pass to your function)

(When you add these lines, you are going to have to pass the two variables into your class/function).

The category bits tells the body what it is, so if you have a player body then its category bit is Bit\_Player. The mask bits tells the body what other bodies it can collide with, so if you want the player to collide with the walls then make its mask bit Bit\_Wall. If you want your player to collide with more than one type of body then you are going to have to have this line for your mask bits:

(short) (Bit\_Wall | Bit\_Enemy | Bit\_EnemyBullet);