**Player movement and animation control in the project**

Using the UPDATE() function, which is call at every frame, the keyboard input is taken into the float MoveX. This is between -1 and 1. If MoveX is not equal to 0 then the X velocity of the player is set to the move speed \* MoveX.

A bool function OnGround(), returns true if a circle of radius 0.1, originating from the players feet (new vector2 (transform.position.x, transform.position.y – 1)), overlaps any objects on the “ground” layer.

OnGround() is used in the code in many places, firstly the left/right velocity-based movement only applies if OnGround() returns true. When OnGround() returns false and MoveX is not equal to 0, a small for is added to the player as a scalar vector (new vector2 (transform.localScale, 0)).

Jumping is manages using OnGround(), if spacebar is pressed and OnGround() is true, then a force is applied to the RigidBody component; rigidbody is the component that physics are applied to.

A running animation has is Play Boolean set to true if MoveX is not equal to 0.