# If - Else Statements

An If-Else statement identifies if a block of code is to be run based on if a statement is true or false.

Examples:

// if statement without an else  
if (condition)  
{  
 then-statement;  
}

// if-else statement  
if (condition)  
{  
 Debug.Log("the statement was true");  
}  
else  
{  
 Debug.Log("the statement was not true");  
}  
  
// if-else statement  
if (condition)  
{  
 Debug.Log("the statement was true");  
}  
else if (condition)  
{  
 Debug.Log("the second statement was true");  
}   
else  
{  
 Debug.Log("nether statements were true");  
}

### Check numbers against each other

Assume there is two variables for these statements.

public void playerHealth = 5;

public void playerDamage = 7;

public void playerStamina = 11;

**If playerHealth is greater than playerDamage**

if (playerHealth > playerDamage)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is less than or equal to playerDamage**

if (playerHealth <= playerDamage)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is not equal to playerDamage**

if (playerHealth != playerDamage)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is equal to playerDamage**

if (playerHealth == playerDamage)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is equal to playerDamage AND playerHealth is less than playerStamina**

if (playerHealth == playerDamage && playerHealth < playerStamina)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is less than playerDamage OR playerHealth is greater than or equal to playerStamina**

if (playerHealth < playerDamage == playerHealth >= playerStamina)  
{  
 Debug.Log("the statement was true");  
}

**If playerHealth is greater than playerDamage run the first command**

**If not then run the second command**

if (playerHealth > playerDamage)  
{  
 Debug.Log("This is the first command");  
}

else  
{  
 Debug.Log("This is the second command");  
}

## Why is this useful?

If statements are the backbone of game coding. You always need to test in games for things like; to see if a player is alive, see if an enemy is within range, or if the player has pressed a button.

## Further information

<https://unity3d.com/learn/tutorials/modules/beginner/scripting/if-statements?playlist=17117>