

Coding Lesson 4 - Conditionals and If Statements

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| **Mild - perfect for beginners** |

Using the starter file - <https://scratch.mit.edu/projects/342091456/>

1. Write a scratch project that asks the user to input a word and has the sprite say the number of vowels (including y) in the input.
   1. Hint: this will also utilize your knowledge of loops

Finished Example - <https://scratch.mit.edu/projects/337441059/>

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| **Medium - expanding your skills** |

Using the starter file -<https://scratch.mit.edu/projects/337275730/editor>

1. Make the sprite ask the user to enter a number.
2. Set the answer as a variable.
3. You will be creating 3 ‘If - Then - Else’ statements
   1. The first will be if the users Answer < 0.
   2. The second will be if the users Answer > 0.
   3. The third will be if the users Answer = 0.
4. If the Users Answer is less than 0 it should say “Your answer is negative!”
5. If the Users Answer is greater than 0 it should say “Your answer is Positive!”
6. If the Users Answer is equal to 0 it should say “Your answer is neither positive or negative!”
7. Fill out your else statement accordingly.

Finished Example: <https://scratch.mit.edu/projects/337270698/>

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| **Spicy - looking for a challenge?** |

Using the starter file - <https://scratch.mit.edu/projects/337276556/>

1. The sprite asks the user to enter a number 1-10, if the user doesn’t it will say an Error code and make you restart the program. Go through this code and understand why it works.
2. What you are going to do is make Casey the sprite count up to the number the user inputs.
3. Casey should count starting at 1 saying each number separately up to the number the user inputs.
4. Figure out where you need to put the repeat until command and put in the correct variables.

Finished Example: <https://scratch.mit.edu/projects/337279592/>

Using the starter file - <https://scratch.mit.edu/projects/337274974>

1. Using the “If - Then - Else” statements make the ball say its color that relates with its costume number.
   1. For example, costume number = 1 should make the ball say “yellow”.
2. Do this 5 times until you have the ball say each of its color.
3. Include something in the last else statement that would make sense for this situation.

Extra: Why is including something in this else statement a better idea than leaving it blank?

Finished Example: <https://scratch.mit.edu/projects/337266064/>

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| **Extra Spicy - looking for a challenge?** |

Using the starter file - <https://scratch.mit.edu/projects/342087595/>

1. Write a scratch project that multiplies two natural numbers without using the multiplication operator.

Finished Example - <https://scratch.mit.edu/projects/333824086/>