## Write algorithm for Lab1 here.

## Remember to follow the rules of what makes a good algorithm from Notes #2.

Algorithm

1. Import python’s built-in math module
2. Ask the user to input a jump
3. Convert the user’s input string to lowercase and use an if-else statement to set the appropriate values of heigh, points per meter, and par distance

* If normal
  + Normal: 46 height, 2 points per meter, 90 par distance
* otherwise
  + Large: 70 height, 1.8 points per meter, 120 par distance

1. Calculate and define the time in the air for either jump type

* Calculation is simplified to sqrt((2\*height)/9.8) [use math module!]

1. Request the speed of the jumper from the user and assign it an appropriate name
2. Calculate the distance travelled by the jumper and assign it an appropriate name

* Jumper’s speed \* Time in the air

1. Calculate the points earned by the jumper and assign it an appropriate name

* Calculation is 60 + (calculated distance - par distance) \* points per meter

1. Output the jumper’s distance and point total to the user
2. Use a set of if-else statements to output one of three phrases dependent on the jumper’s point total
3. If the jumper’s point total is greater than 60,

* output ‘Great job for doing better than par!’

1. Otherwise, if the jumper’s point total is less than 10,

* output ‘What happened??’

1. Otherwise,

* output ‘Sorry you didn’t go very far’

A diagram of a flowchart

Description automatically generated