## 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

* Normal: 46 height, 2 points per meter, 90 par distance
* 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!’
4. Otherwise, if the jumper’s point total is less than 10, output ‘What happened??’
5. Otherwise, output ‘Sorry you didn’t go very far’

A diagram of a flowchart

Description automatically generated