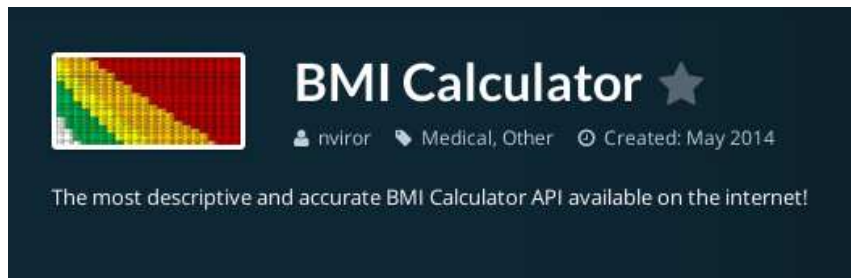
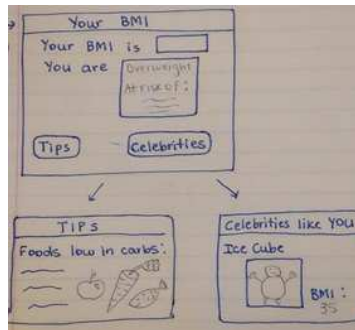
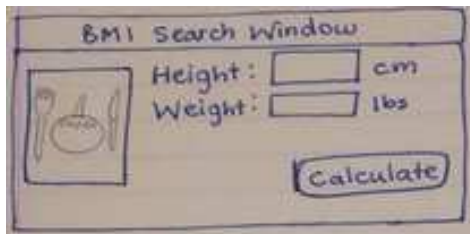


This GUI uses an API to calculate a persons Body Mass Index after they enter their height and weight. It also tells them whether they are underweight or overweight and about potential risks they could face. Depending on the output, the GUI will open a window that shows celebrities who are in the same BMI range as the user and helpful health tips.



# Analysis

We will use the mashape marketplace to acquire an API that calculates the user's BMI. (<https://market.mashape.com/nviror/bmi-calculator>) Users input their measurements in the appropriate search box (pounds for weight and inches for height). The information is returned in json format. We are going to use this API to parse it: <https://github.com/nlohmann/json>. Once we find the url from that info, we can use the CURL API to retrieve the users BMI. <https://curl.haxx.de>. The BMI will be displayed on a new window with two buttons, **Health Tips** and **Celebs with Similar BMIs**. The first option will open a window with a helpful infographic. The second will open a new window with celebrities who are in the same BMI range as the user.



# Analysis

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$$BMI = \frac{weightinpounds \times 703}{heightinches^2}$$

For example if a person weight is 200 pounds, and his or her height 5 feet 10 inches, which converts into 70 inches, then we in put 200 pounds and 70 inches into the formula above.

$$BMI = \frac{200lbs \times 703}{70inches^2} = 39.1$$

Then we will use the result to plot it on the our custom graph that shows the range of BMI to see if the user is underweight,normal or overweight.