Analysis Report (Surf\_Up)

1. The purpose of this analysis is to help me fulfill my newfound passion of surfing in Hawaii and eventually live there forever. So, to fulfill my new passion, I came up with the idea of opening a Surf and Shake shop, where I can sell surfboards and ice cream to locals, tourists, and of course, yourself. I team up with an investor who is willing to back me up to get the business started but he has a concern about the weather. Together, we decided to a weather analysis to see if the

business will have a chance to succeed.

1. Result:

* Looking at the table below, we can see that the minimum temperature in the month of June is just above 60 degrees and maximum is 85 degrees. Which in my opinion is a good temperature to attract the locals and tourists to go surf and enjoy a good flavor of ice cream.

tobs

count 1700.000000

mean 74.944118

std 3.257417

min 64.000000

25% 73.000000

50% 75.000000

75% 77.000000

max 85.000000

* There is not a significant difference in the temperature in the December from June. The difference is that in December temperature is a couple of degree lower compared to the June. Therefore, in December I would expect the same outcome as in June.

tobs

count 1517.000000

mean 71.041529

std 3.745920

min 56.000000

25% 69.000000

50% 71.000000

75% 74.000000

max 83.000000

* Another aspect worth to point out is the difference in the standard of deviation. In June the standard of deviation is lower, meaning that the temperature is relatively consistent. And in the December the standard of deviation is higher which mean that the temperature is not consistent.

Summary:

To summarize, in Oahu, Hawaii, the weather is pretty much the same from June through December with minimum temperatures above 60 degrees and maximum temperatures above 80 degrees. In that case, opening a Surf and Shake shop would not be a bad investment. I truly believe that the business is sustainable year-round, so I recommend W. Avy to go ahead and jump on board. To back up my conclusion, I did two more queries to see if there would be a different pattern. The two tables below show the 5 days consecutive of temperature for the months of June and December. As we can see the temperatures are almost the same.

June temps

date tobs

0 2010-06-01 78.0

1 2010-06-02 76.0

2 2010-06-03 78.0

3 2010-06-04 76.0

4 2010-06-05 77.0

December temps

date tobs

0 2010-12-01 76.0

1 2010-12-03 74.0

2 2010-12-04 74.0

3 2010-12-06 64.0

4 2010-12-07 64.0

These two other tables show the precipitation for the month of June and December. From these table, we can conclude that it rains more in December than in June.

June precipitation

count 1574.000000

mean 0.136360

std 0.335731

min 0.000000

25% 0.000000

50% 0.020000

75% 0.120000

max 4.430000

December precipitation

count 1405.000000

mean 0.216819

std 0.541399

min 0.000000

25% 0.000000

50% 0.030000

75% 0.150000

max 6.420000