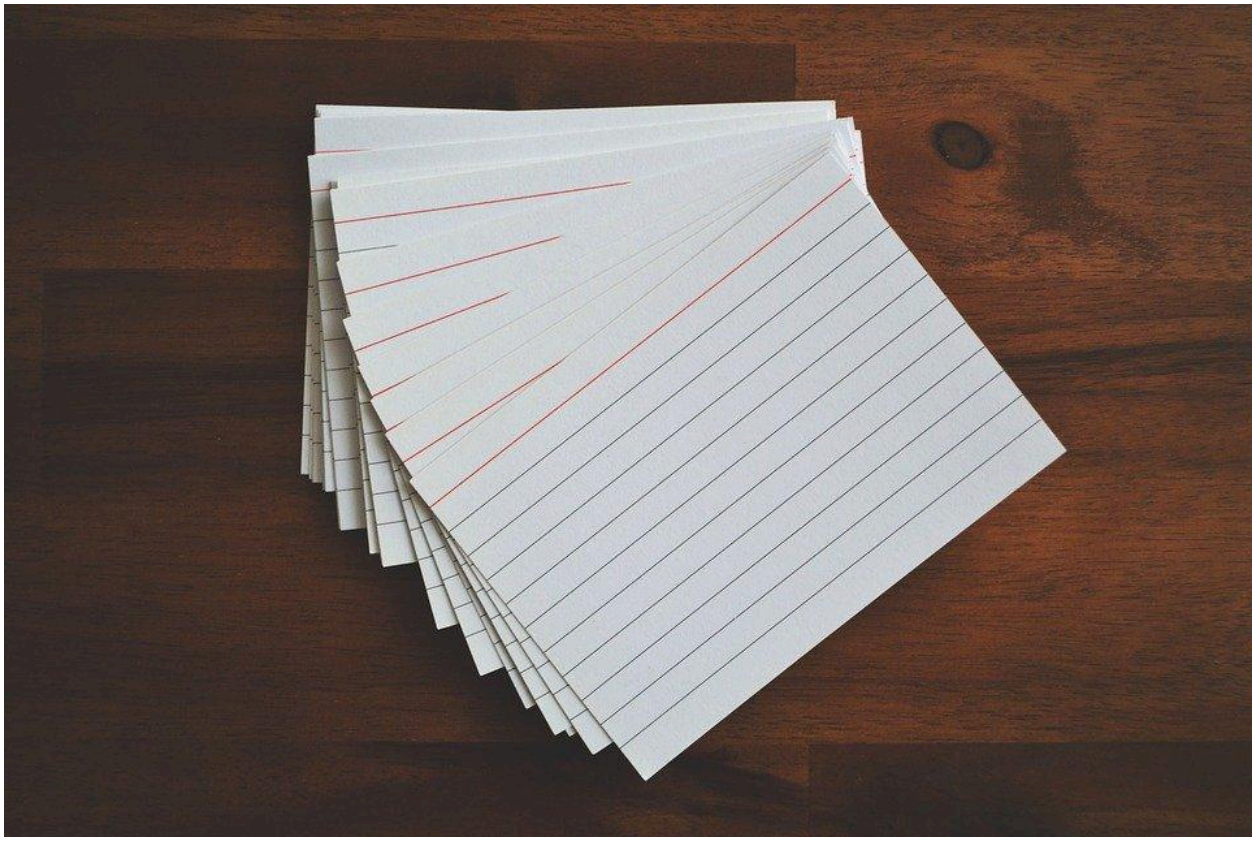
Team Project Planning Document:

House of Cards



Presented By:

Team T_1

Carlo Stafford

Andrew Woodworth

Pablo Barrientos

David Contreras

Table of Contents

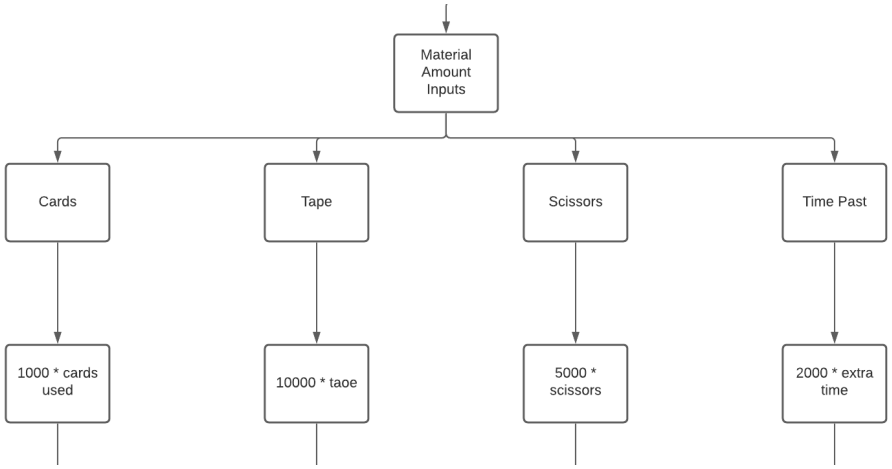
Materials to be purchased…… 3

Expectations…… 4

Construction Plan…… 5

Python Top Downs…… 6-8

Materials To Be Purchased



Material Costs:

Cards - $1,000 each

Rolls of tape - $10,000 each

scissors - $5,000 each
Time over - $2,000 each

Total cost = cards + tape + scissors + time over

We tested and created a prototype tower using these materials:

Materials to build:
39 index card used and 1 tape roll, no scissors = **$49,000**

Bonus money:
12 inches over 36 **(+$24,000)**
3x extra pennies**(+$15,000)**

Expectations

Expected Height:

Considering our practice run, our expected height of the structure is 48 inches.

Anticipated Strength:

With correct placement of the stacks of pennies, our structure can hold at max 4 stacks of pennies (10 pennies per stack). However, on construction day we will shoot for less.

Expected time of construction:

Our tower is expected to take approximately 20 minutes for completion.

Anticipated Profit:

If everything goes well, we will begin with ($100,000). Our tower requires $49,000 in materials, this will be our total cost if everything goes as planned. Considering our predicted height of 48 inches, we will receive a bonus of ($24,000). And a penny bonus of ($10,000). So have $124,000 in revenue and $49,000 in cost expenses. This brings us a profit of $85,000.

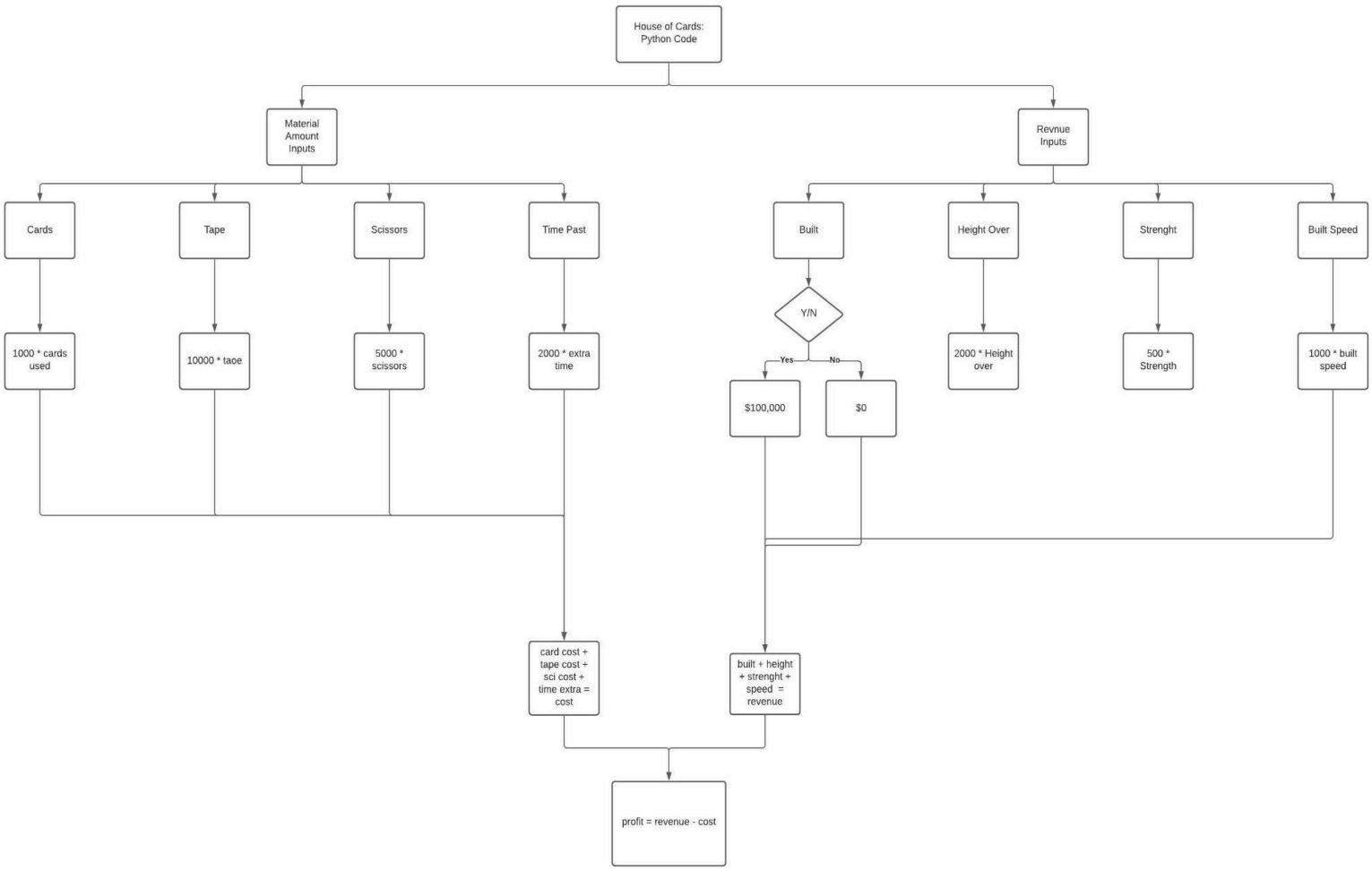
Construction Plan

After doing a practice run we figured out a good strategy and who's best at doing what. We assigned people different rolls in order to make our time the fastest possible.

Jobs:

We’re gonna have one person lay down cards to form a rectangle. Someone to tape them together. And another one to form the “triangles.” And finally the last job is to place it on the actual tower.

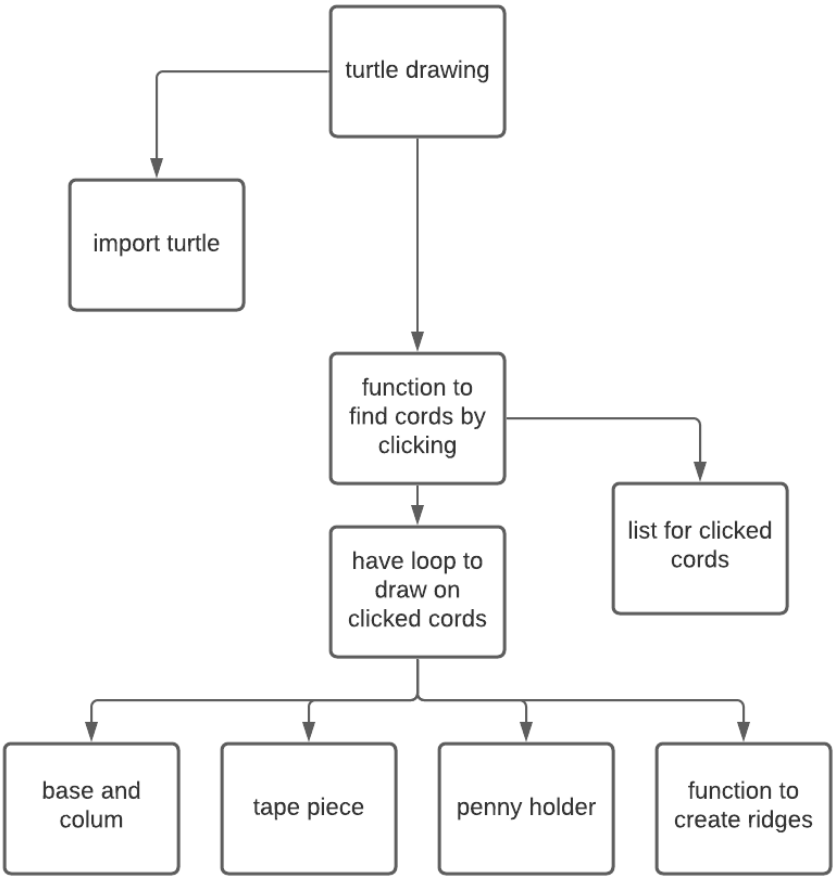
Top Down

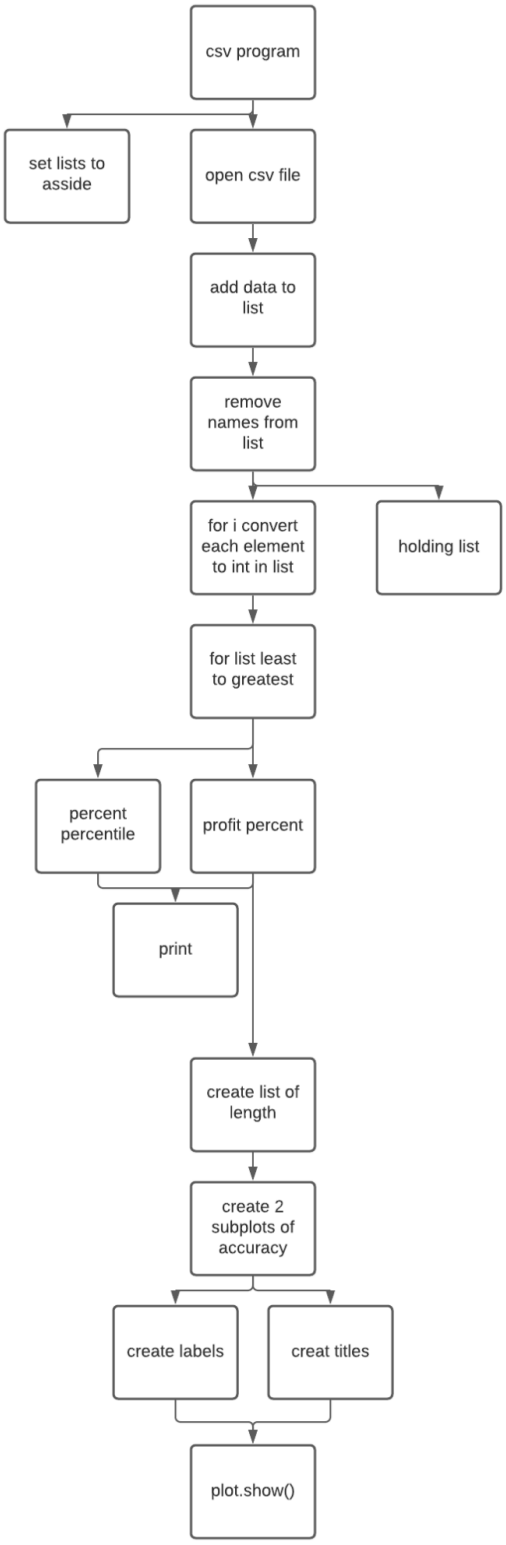


This is our top down for our python code for our profit calculation. This code takes in material cost inputs and revenue inputs and outputs our profit.

Top Down

Top down for the turtle piece of our program.





Top down for the cvs part of the program.