INFO197P: Assignment 2, **Due Tuesday 4/7 11:59PM EDT**

Follow all directions and submit all code created in one file entitled "*lastname*_A2.py". You can use any editor you wish (repl.it, spyder, pycharm, etc). Your code should work (i.e. not have any errors) when submitted. However, partially-written or nonworking code is better than no code at all, so ultimately I want you to submit whatever you have by the deadline.

For this assignment, please use for loops and variables WHENEVER POSSIBLE.

Failure to use loops and variables when instructed may result in a loss of credit.

Part 1

1. Write an if statement to express the following conditions and print the required color. (Hint: remember modulo %?)
   a. A number that is even is blue.
   b. A number that is divisible by 3 is yellow.
   c. A number that is greater than 30 is red.
   d. Colors are additive – so a number that is even and divisible by 3 is green (yellow+blue).
   e. Numbers with no color are white.

Part 2

For this part, use the following dictionary:

```
donutdict = {
  "id": "0001",
  "type": "donut",
  "name": "Cake",
  "batters":
    {
      "batter":
        [
          { "id": "1001", "type": "Regular" },
          { "id": "1002", "type": "Chocolate" },
          { "id": "1003", "type": "Blueberry" },
          { "id": "1004", "type": "Devil's Food" }
        ]
    },
  "topping":
```

```
    [
      { "id": "5001", "type": "None" },
      { "id": "5002", "type": "Glazed" },
      { "id": "5005", "type": "Sugar" },
      { "id": "5007", "type": "Powdered Sugar" },
      { "id": "5006", "type": "Chocolate with Sprinkles" },
      { "id": "5003", "type": "Chocolate" },
      { "id": "5004", "type": "Maple" }
    ]
}
```

1. Use nested for loops to create a list of all possible donuts (each batter matched with each topping).

2. Use loops, if statements and string methods to print out all the types of donuts that have chocolate in them (note that Devil's Food is a type of chocolate!)

Part 3

You receive the following messy data as a string:

```
data =
"Name,Age,Occupation;Helen,32,teacher;Ajan,24,Analyst;Jasmine,27,Engineer"
```

Use loops, string and list methods to turn this data into a dictionary that looks like the following:

```
cleandata = {"people" : [{"name":"Helen", "age":32, "occupation":"teacher"
}, {"name":"Ajan", "age":24, "occupation":"analyst" }, {"name":"Jasmine",
"age":27, "occupation":"engineer" }]}
```