

Assignment 1

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1. calculate the U.S. population in exactly one year
 People birth for one year $365 \times 24 \times 60 \times 60 / 8$
 People dead for one year $365 \times 24 \times 60 \times 60 / 12$
 People immigrant from other country for one year $365 \times 24 \times 60 \times 60 / 33$
 Current population + People birth for one year + People immigrant from other country for one year - People dead for one year
 print("current population")

2. output the time as days, hours, minutes
 int W, X, Y, Z = 0
 for T in range of 1 to 1000000
 Random choose T
 Input x
 Find days int W = T / 86400
 Find remain seconds T = T - W*86400
 If T > 0 {
 Find hours int X = T / 3600
 Find remain seconds T = T - X*3600
 If T > 0 {
 Find minutes int Y = T / 60
 Find the remain seconds T = T - Y*60
 If T > 0 {
 Find seconds Z = T
 } else {
 break
 }
 } else {
 break
 }
 }
 print ("The time is W days, X hours, Y minutes, and Z seconds")

3. convert a given Fahrenheit temperature into Celsius
 n = (Fahrenheit - 32) / 1.8
 output n degrees Celsius

4. do {
 Enter a number
 Input x }
 While (x not equal to 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
 print (x)

5. Print("Enter the miles per gallon of their car")

```
Input x
If x>50{
    print nice job}
else if x>=25 and x<=49{
    print Not great, but okay}
else{
    print So bad, so very, very bad}
```

6. char x

```
while (1) {
    print ("Please enter you choice for superhero adventure game
        a. Fight the villain
        b. Save the citizen
        c. Return to secret base")
    Input x
    if x="c"{
        break}
    elif x="a"{
        print("You win")
        continue
    }
    elif x="b"{
        print("You saved the citizen")
        continue
    }
}
print ("Who will save the world?" )
```

7.

```
x= the color of cub
while (x is not pink){
    If x = White {
        move forward
        read color of cub
        continue}
    elif x = Blue{
        turn left + move forward
        read color of cub
        continue}
    elif x = Green{
        turn right + move forward
        read color of cub
        continue}
    elif x = Black
        trun left + turn left+move forward + move forward
        read color of cub
        continue}
```

```
elif x= Yellow{  
    break}  
}  
print("It is end of a part of a treasure hunt")
```