

21st October
Computational Thought
Scribe Notes
Part 2
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- Discussed Dennis code for the coin problem (coins1.py)
- **Functions**
Print "*****"
Print "!!!!!!!!!"
Print "*****"

Instead of giving these 3 commands, we can define a function :

```
#function that returns the characters
Def textfetti(character,number):
    Return character*number

# prints the characters
Print textfetti('*',100) : prints '*' 100 times

#loop for printing a range of character
Def party (listChar, listnNum):
    For I in range(len(listChar)):
        Print textfetti(listChar[i], listNum[i];

Party(["!","*"],[50,10])
#this prints
# !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
# *****
```

- List comprehension
Eg : [[] for c in range(100)]
This prints a 100 []

```
Eg 2 : number="123456789"
[int(x) for x in number]
#This Prints
#[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
Eg 3: a=[1,4,5,6]
      b=[3,4,5,2]
```

```
#calculates the sum of the product of the numbers in array #'a' with the
# corresponding numbers in array 'b'
sum([x*y for x, y in zip(a,b)])
#prints
```

#56

```
zip(a,b)
```

```
prints [(1,3), (4,4), (5,5), (6,2)]
```