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Subject: Expert System And Applied Al

Class: MS(CS)

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Open in Colab

```
In [ ]: x = 5
       if x < 10:
        print('Smaller')
        if x > 20:
        print('Bigger')
       print('Finis')
      Smaller
      Finis
In [ ]: x = 5
       if x == 5 :
         print('Equals 5')
        if x > 4:
        print('Greater than 4')
        if x >= 5 :
         print('Greater than or Equals 5')
        if x < 6 : print('Less than 6')
       if x <= 5 :
        print('Less than or Equals 5')
       if x != 6 :
```

```
In [ ]: x = 5
         print('Before 5')
         if x == 5:
         print('Is 5')
         print('Is Still 5')
         print('Third 5')
         print('Afterwards 5')
         print('Before 6')
         if x == 6 :
  print('Is 6')
         print('Is Still 6')
         print('Third 6')
         print('Afterwards 6')
       Before 5
       Is 5
       Is Still 5
       Third 5
       Afterwards 5
       Before 6
       Is Still 6
       Third 6
       Afterwards 6
In [ ]: x = 42
         if x > 1 :
         print('More than one')
         if x < 100 :
        print('Less than 100')
print('All done')
```

```
** ifx < 2:
          print('small')
          elifx < 10 :
print('Medium')</pre>
          else:
          print('LARGE')
          print('All done')
In [ ]: x = 5
          if x < 2 :
          print('Small')
          elif x < 10 :
  print('Medium')</pre>
         print('All done')
       Medium
       All done
In [ ]: astr= 'Hello Bob'
          try:
istr= int(astr)
           except:
          istr= -1
print('First', istr)
astr= '123'
           try:
          istr= int(astr)
           except:
          istr= -1
```

```
Open in Colab
In [ ]: def thing():
            print('Hello')
            print('Fun')
         thing()
         print('Zip')
         thing()
      Hello
      Fun
      Zip
      Hello
      Fun
In [ ]: x= 5
        print('Hello')
         def print_lyrics():
            print("I'm a lumberjack, and I'm okay.")
         print('I sleep all night and I work all day.')
         print('Yo')
         x= x+2
        print(x)
```

```
In [ ]: x= 5
         print('Hello')
         def print_lyrics():
              print("I'm a lumberjack, and I'm okay.")
         print('I sleep all night and I work all day.')
         print('Yo')
         print_lyrics()
         x= x+2
         print(x)
       I sleep all night and I work all day.
       I'm a lumberjack, and I'm okay.
In [ ]: def greet(lang):
          if lang == 'es':
              print('Hola')
          elif lang == 'fr':
                print('Bonjour')
          else:
             print('Hello')
In [ ]: def greet():
         return "Hello"
        print(greet(), "Glenn")
print(greet(), "Sally")
```

```
In [ ]: def addtwo(a, b):
           added = a+ b
           return added
           x = addtwo(3, 5)
           print(x)
In [ ]: def computepay(hours, rate):
            if hours <= 40:
                pay = hours * rate
             else:
                 regular_hours = 40
                 overtime_hours = hours - 40
                 pay = (regular_hours * rate) + (overtime_hours * 1.5 * rate)
             return pay
         try:
             hours = float(input("Enter Hours: "))
             rate = float(input("Enter Rate: "))
             total_pay = computepay(hours, rate)
print("Pay:", total_pay)
         except ValueError:
             print("Please enter valid numeric input for hours and rate.")
       Enter Hours: 14
       Enter Rate: 555
```

Pay: 7770.0

```
n=0
while n>0:
print('Lather')
print('Rinse')
print('Dry off!')
while True:
line=input('> ')
if line=='done':
   break
print(line)
print('Done!')
while True:
line=input('> ')
ifline[0]== '#':
continue
if line=='done':
break
print(line)
print('Done!')
for i in [5, 4, 3, 2, 1] :
print(i)
print('Blastoff!')
```

```
print('Before', largest_so_far)
for the_num in [9, 41, 12, 3, 74, 15] :
 if the num > largest_so_far:
 largest_so_far= the_num
print(largest_so_far, the_num)
print('After', largest_so_far)
fore -1
15
ter 74
zork = 0
print('Before', zork)
for thing in [9, 41, 12, 3, 74, 15]:
 zork = zork + 1
print(zork, thing)
print('After', zork)
fore 0
15
fter 6
 zork = 0
 print('Before', zork)
 for thing in [9, 41, 12, 3, 74, 15]:
 zork = zork + thing
 print(zork, thing)
 print('After', zork)
```

```
In []: fruit = 'banana'
letter= fruit[1]
print(letter)

x= 3
 w= fruit[x-1]
print(w)

In []: fruit = 'banana'
 x = len(fruit)
print(x)

6

In []: fruit = 'banana'
index= 0
whileindex< len(fruit):
letter= fruit[index]
print(index, letter)
index= index= 1
```

```
In [ ]: fruit = 'banana'
         for letter in fruit:
         print(letter)
          index= 0
         whileindex< len(fruit) :
         letter= fruit[index]
         print(letter)
         index= index+1
In [ ]: word = 'banana'
        count = 0
        for letter in word :
         if letter == 'a' :
          count = count + 1
        print(count)
In [ ]: if word=='banana':
         print('All right, bananas.')
if word<'banana':</pre>
          print('Your word,'+word+', comes before banana.')
         elifword>'banana':
         print('Your word,'+word+', comes after banana.')
         else:
         print('All right, bananas.')
```

```
In []: line = 'Please have a nice day'
line.startswith('Please')
True
line.startswith('p')

In []: greet=' Hello Bob '
greet.lstrip()
'Hello Bob '
greet.rstrip()
' Hello Bob'
greet.strip()

In []: greet = 'Hello Bob'
nstr= greet.replace('Bob','Jane')
print(nstr)
nstr= greet.replace('o','X')
print(nstr)
```