Question 1 - Primes

Write a function to determine whether a given number is prime or not (divisible only by itself and 1). Use the Wikipedia definition of a prime numbers as a reference.

Solution: A number which is divisible by 1 and itself is called prime number

Function is_prime(number)

```
def is_prime(p):
    if p > 1:
        n = p // 2
        for i in range(2, n + 1):
        if p % i == 0:
            return False
        return True
    else:
        return False

number = 1011013

#Test data: number = 1011013, number = 10110133, number = 101101331
if is_prime(number):
    print str(number) + " is a prime number"
else:
    print str(number) + " is not a prime number"
```

Reference:

https://en.wikipedia.org/wiki/Prime_number

Output

Screen Shots:

Case 1: Testing above function for a case when given number is prime

```
Currently Open Documents
                                                             T_{\downarrow} * File Path • : ~/Documents/Youtube/Prime_Function.py
    Factorial.py
inuxwords.txt
                                                                                         Prime_Function.py ‡ (no symbol selected)
                                                                              def is_prime(p):

if p > 1:

n = p // 2

for i in range(2, n + 1):

if p % i == 0:

return False

return True

else:

return False
        mirrorwords.txt
    output.txt
        Polygon.py
     Reverse.py
                                                                              # test data: number = 1011013, number = 10110133, number = 101101331
if is_prime(number):
    print str(number) + " is a prime number"
                                                                              else:
                                                                                     print str(number) + " is not a prime number"
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                                                                                       Last login: Mon Feb 20 17:15:01 on ttys001
//war/folders/fx/rxplwxx9lpl4vvkv8gjgxwyh0000gn/T/Cleanup\ At\ Startup/Prime_Func
tion-50932514.242.py. command; exit;
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gp/T/Cleanup\ At\ Startup/Prime_Function-509332514.242.py.command; exit;
1011013 is a prime number
logout
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  Recent Documents
Prime_Function.p
        Polygon.pv
    Reverse.py
    Original.py
        mirrorwords.tx
        output.txt
```

Case 2: Testing above function for a case when given number is not prime

