

## Errors and Exception Handling







## Complete Python Bootcamp

- Errors are bound to happen in your code!
- Especially when someone else ends up using it in an unexpected way.
- We can use error handling to attempt to plan for possible errors.







## Complete Python Bootcamp

- For example, a user may try to write to a file that was only opened in mode='r'
- Currently if there is any type of error in your code, the entire script will stop.
- We can use Error Handling to let the script continue with other code, even if there is an error.





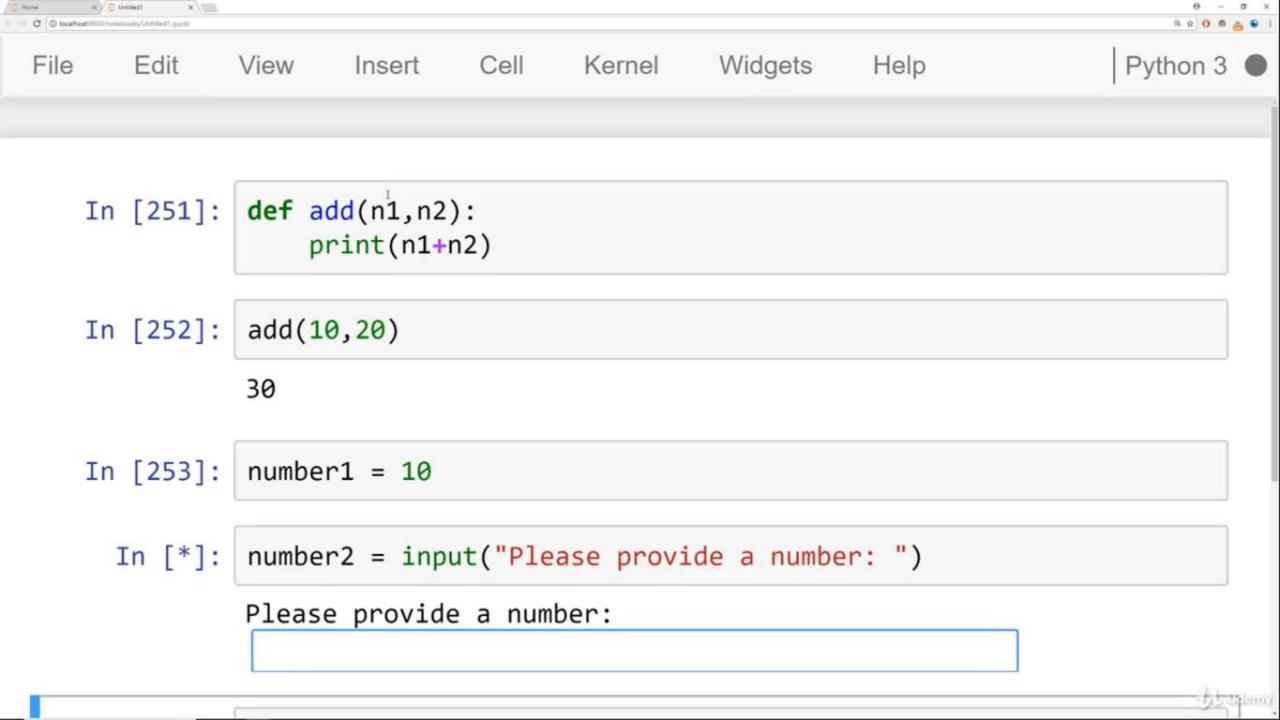


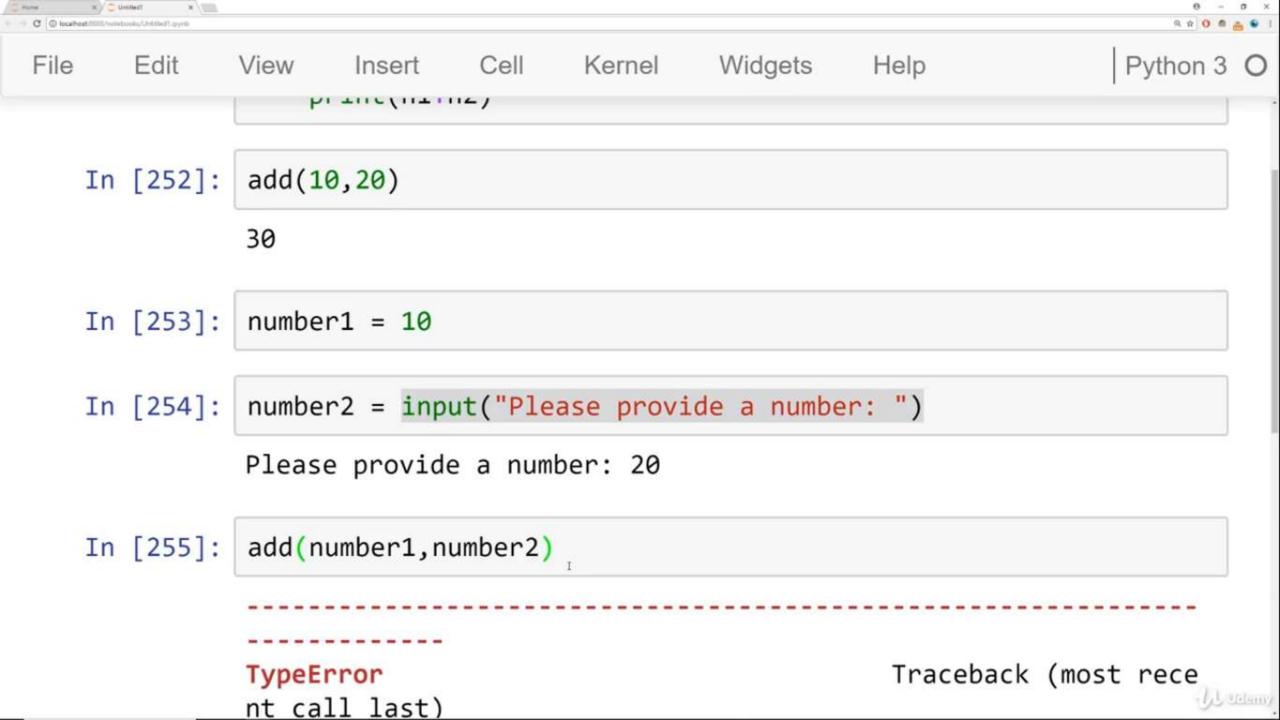
## Complete Python Bootcamp

- We use three keywords for this:
  - try: This is the block of code to be attempted (may lead to an error)
  - except: Block of code will execute in case there is an error in try block
  - finally: A final block of code to be executed, regardless of an error.





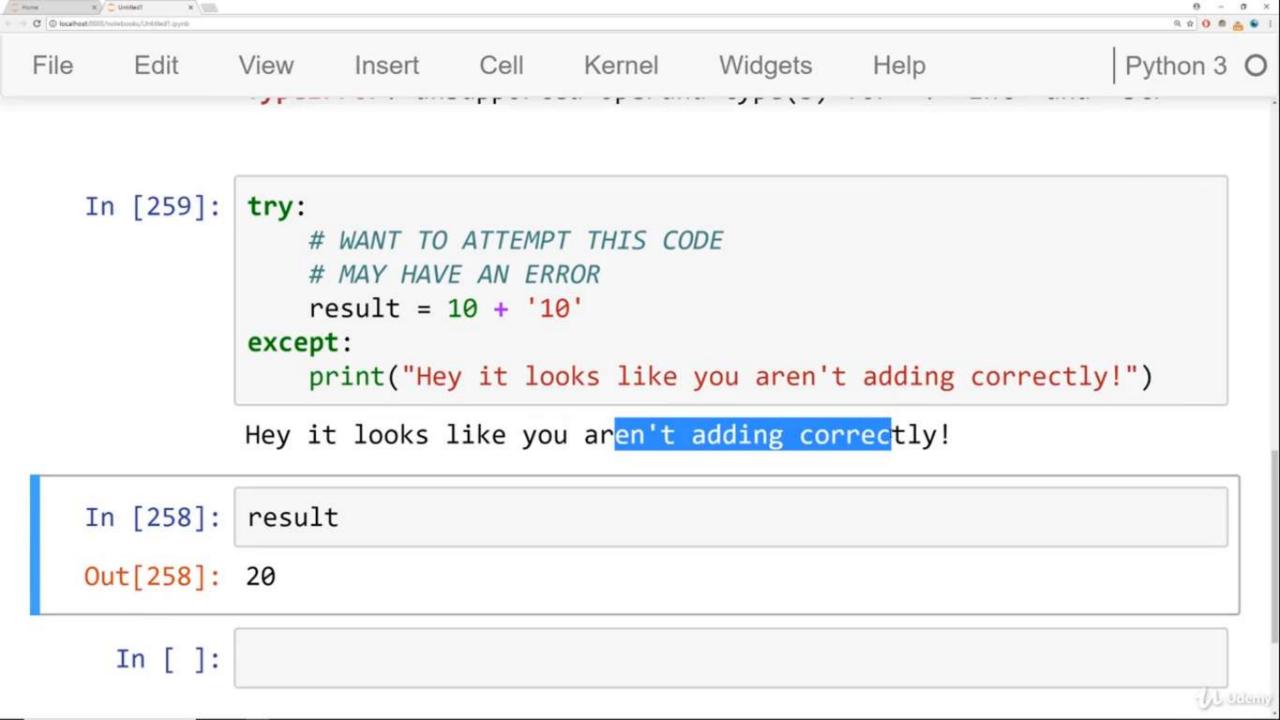


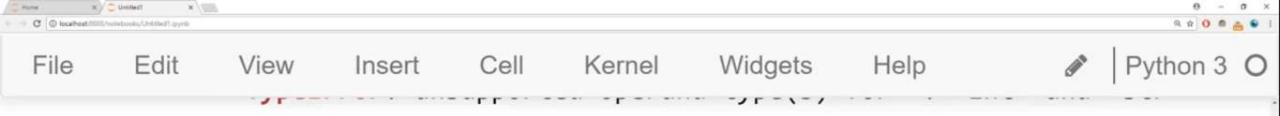


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              TypeError
              nt call last)
              <ipython-input-255-2ab48a5d5ad6> in <module>()
              ---> 1 add(number1, number2)
              <ipython-input-251-59b429e2351f> in add(n1, n2)
                    1 def add(n1,n2):
              ----> 2 print(n1+n2)
              TypeError: unsupported operand type(s) for +: 'int' and 'str'
     In [ ]:
```

J. Lieberry







```
In [260]: try:
              # WANT TO ATTEMPT THIS CODE
              # MAY HAVE AN ERROR
              result = 10 + '10'
          except:
              print("Hey it looks like you aren't adding correctly!")
          else:
              print("Add went well!")
              print(result)
          Hey it looks like you aren't adding correctly!
```

In [258]: result

Out[258]: 20

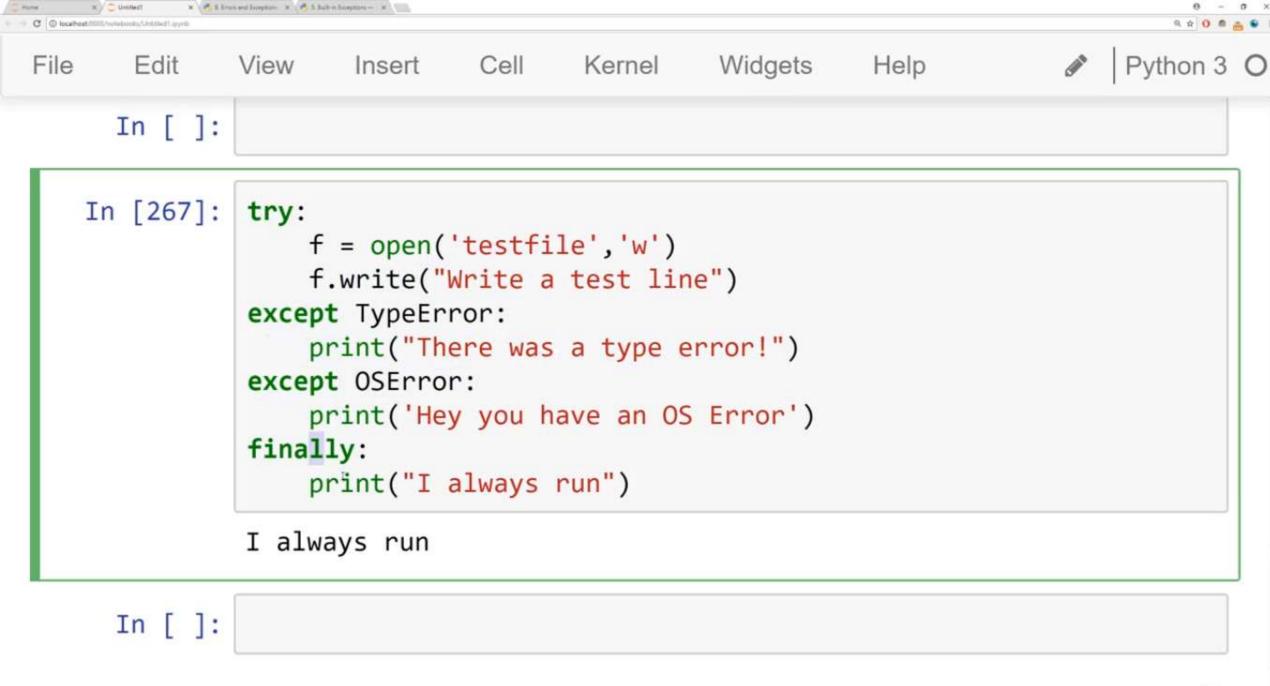
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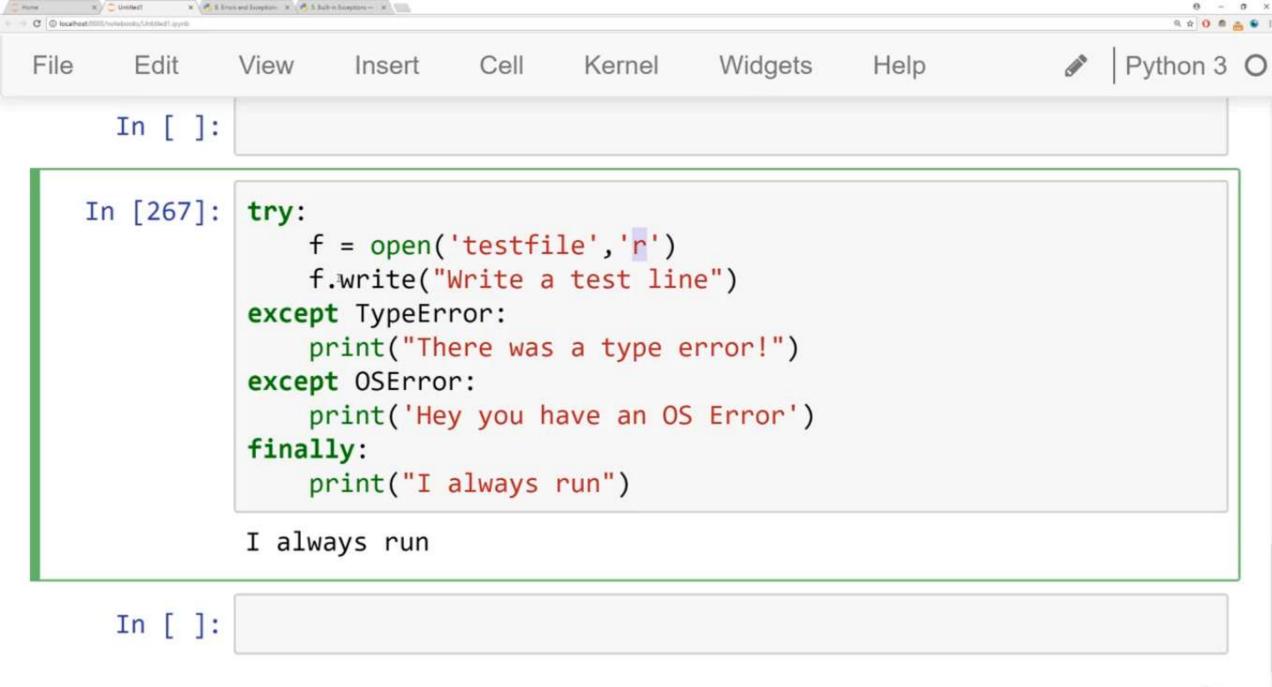
```
In [261]: try:
              # WANT TO ATTEMPT THIS CODE
              # MAY HAVE AN ERROR
              result = 10 + 10
          except:
              print("Hey it looks like you aren't adding correctly!")
          else:
              print("Add went well!")
              print(result)
          Add went well!
          20
```

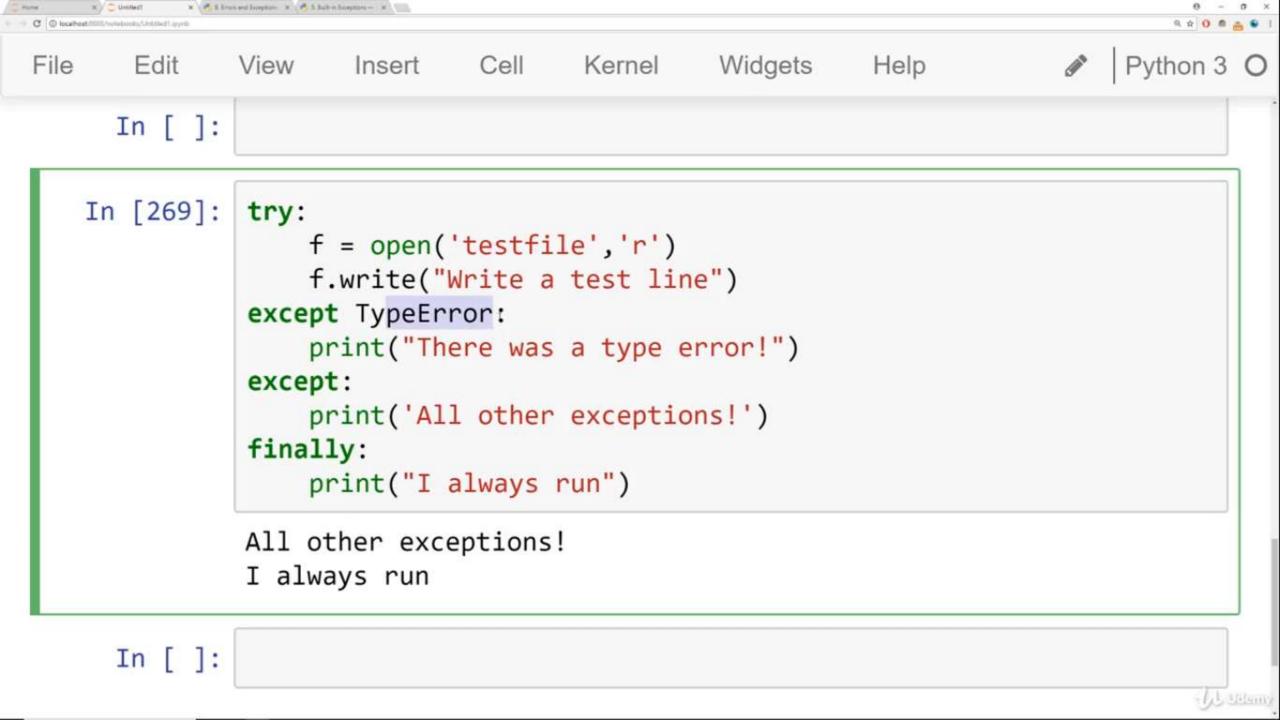
In [258]: result

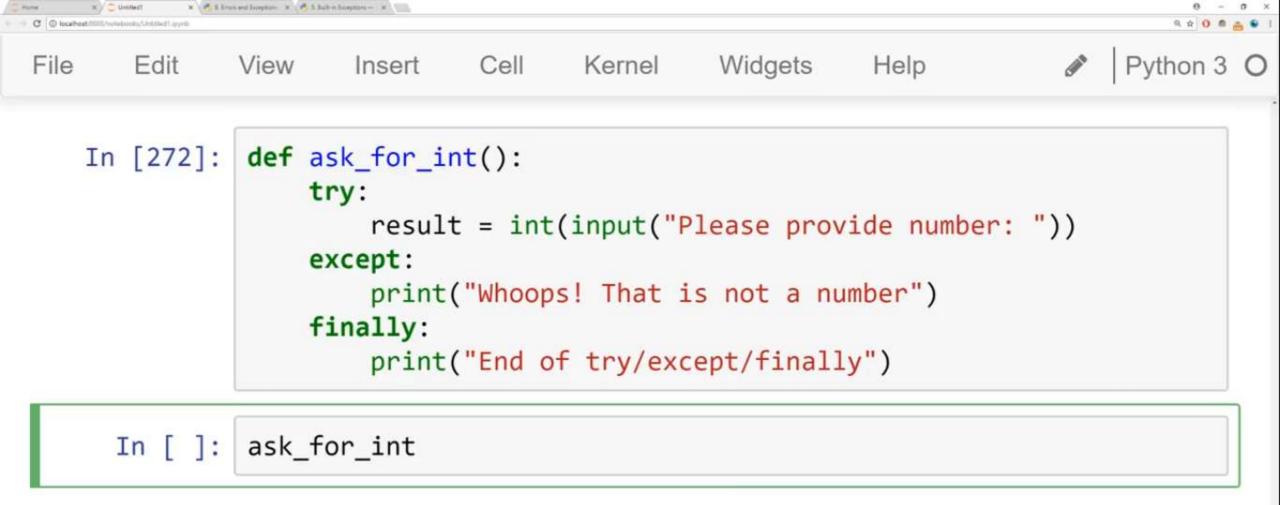
Out[258]: 20

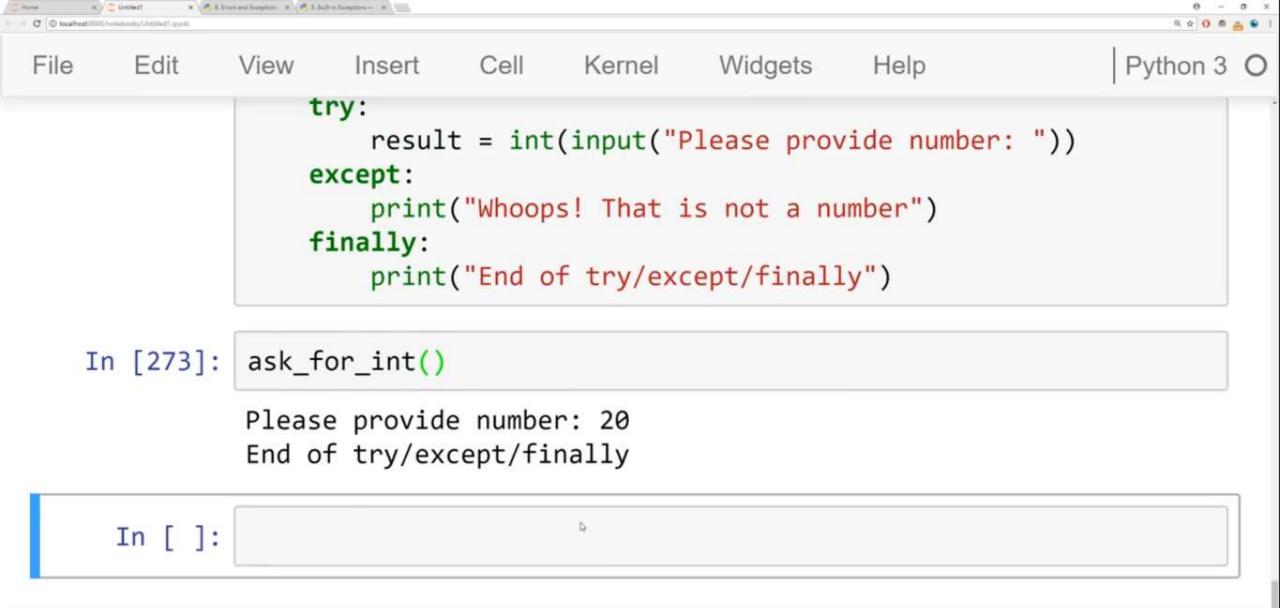
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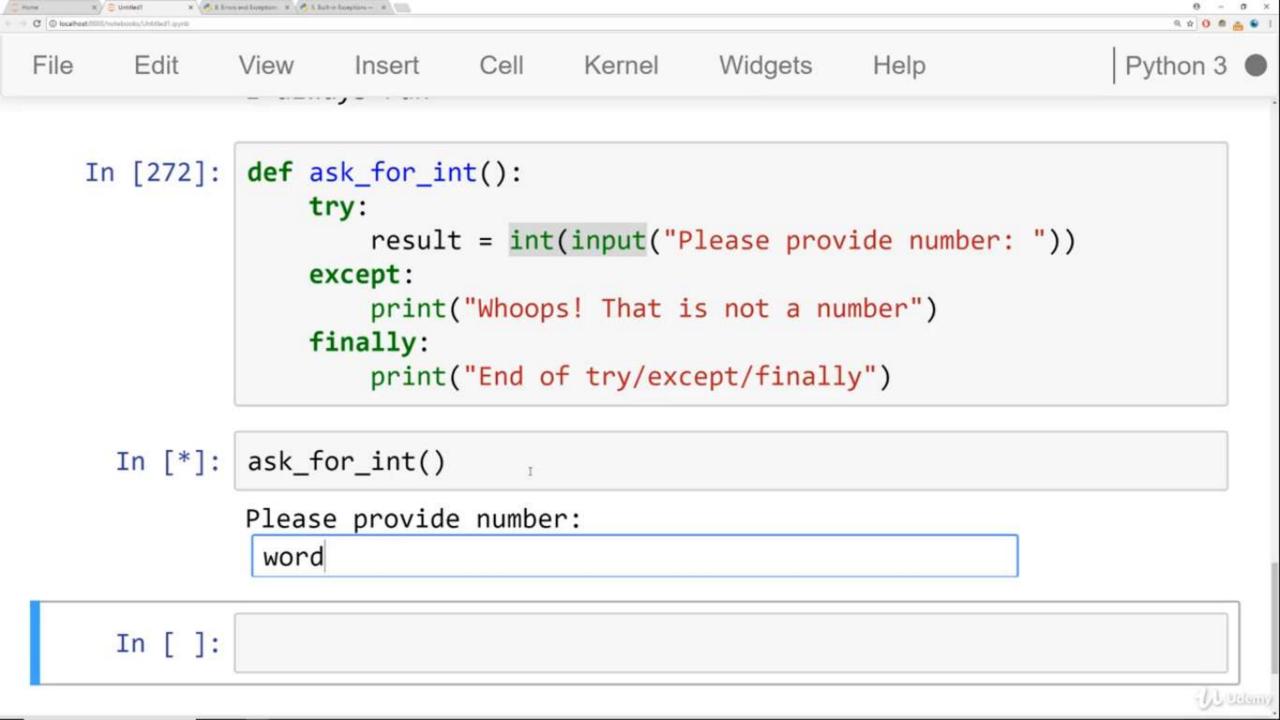








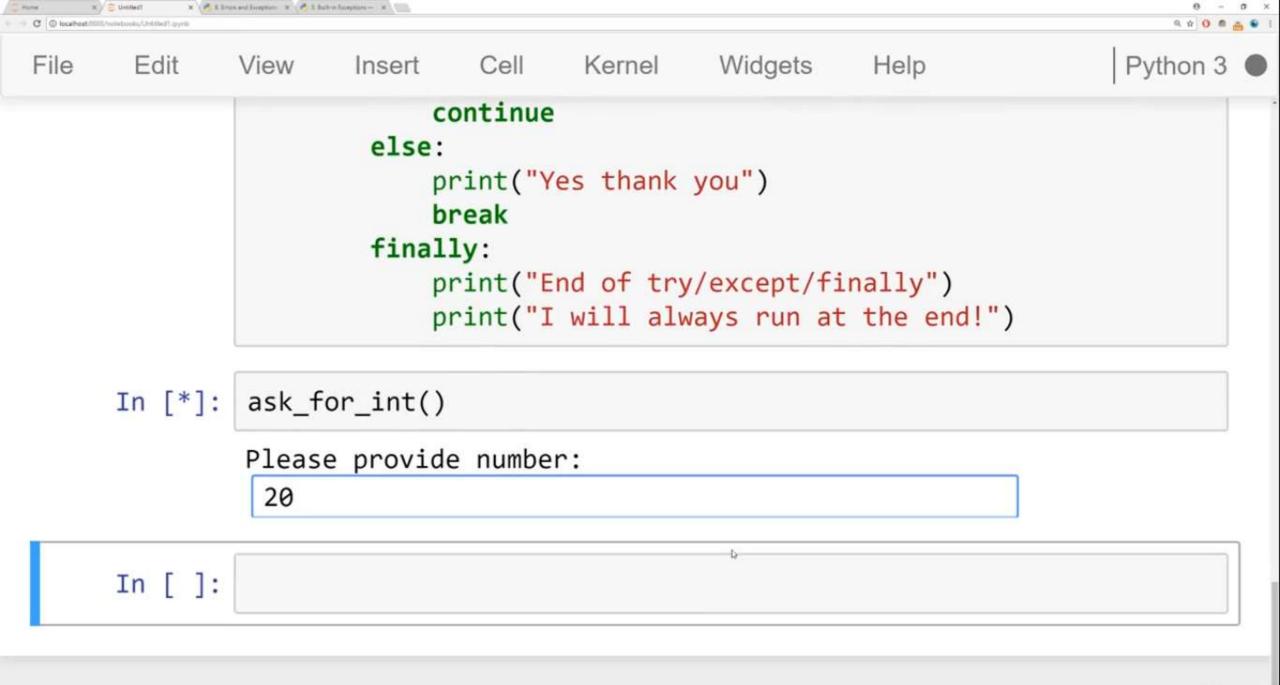


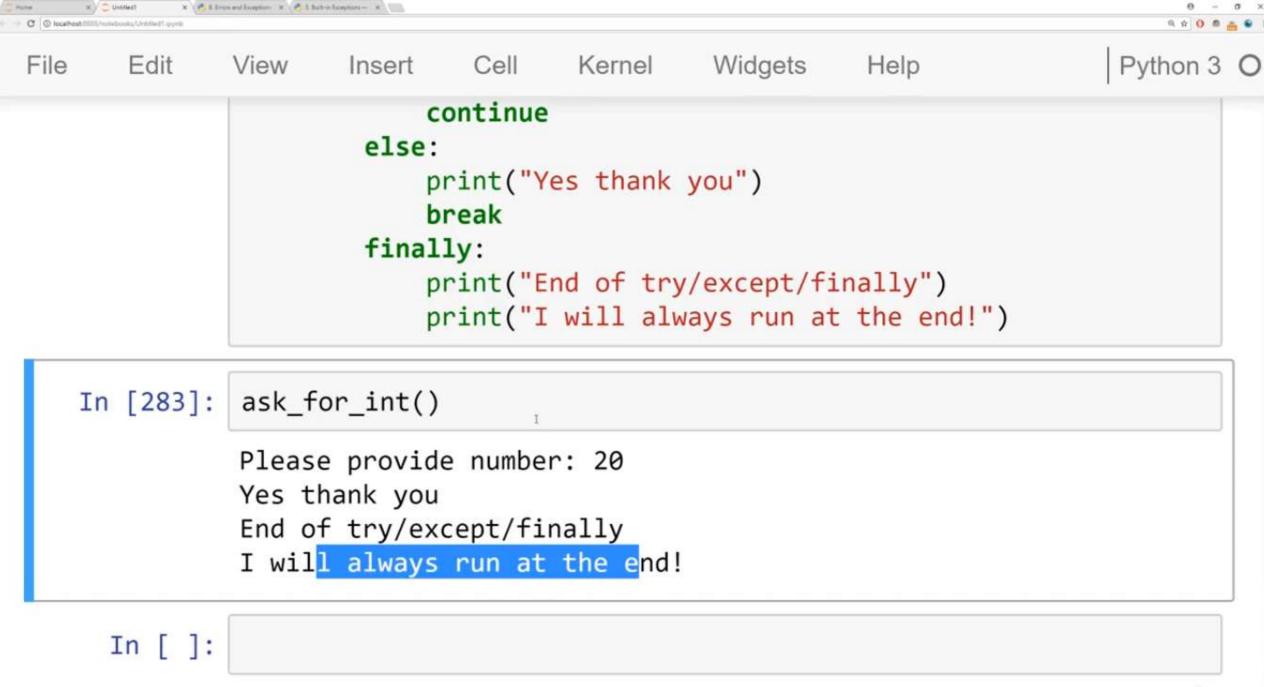


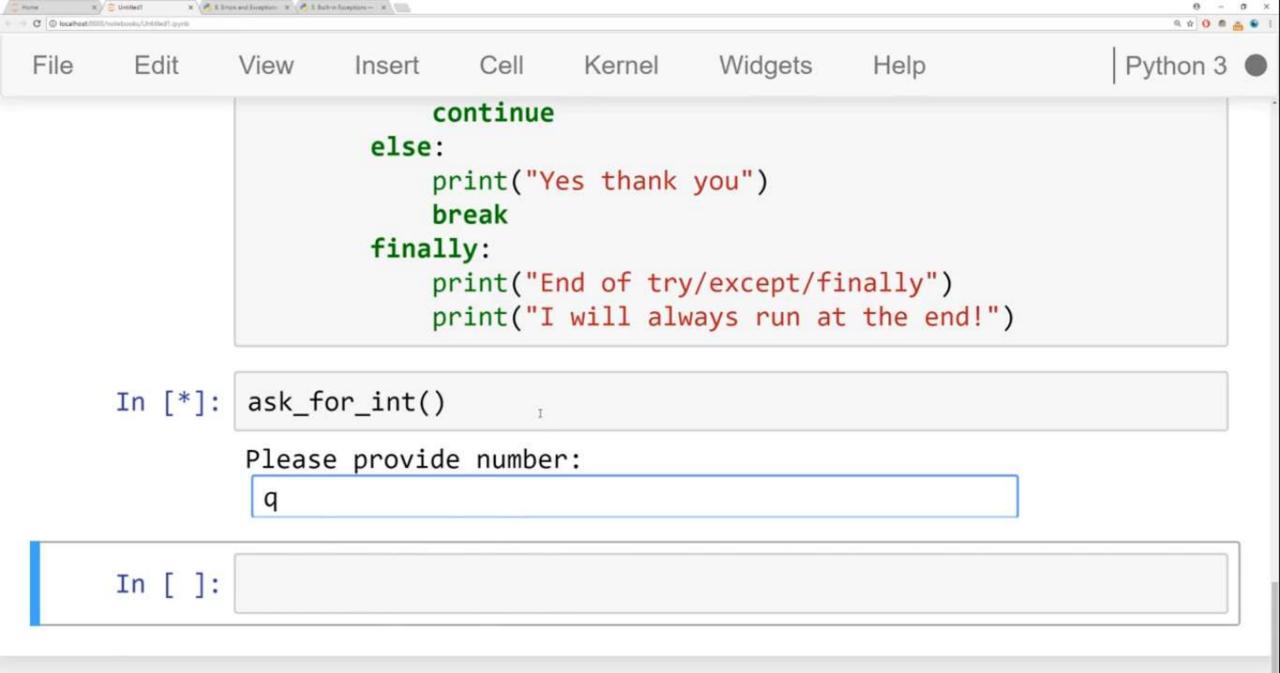
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    In [272]: def ask_for_int():
                     try:
                          result = int(input("Please provide number: "))
                     except:
                          print("Whoops! That is not a number")
                     finally:
                          print("End of try/except/finally")
    In [274]: ask_for_int()
                Please provide number: word
                Whoops! That is not a number
                End of try/except/finally
      In [ ]:
```

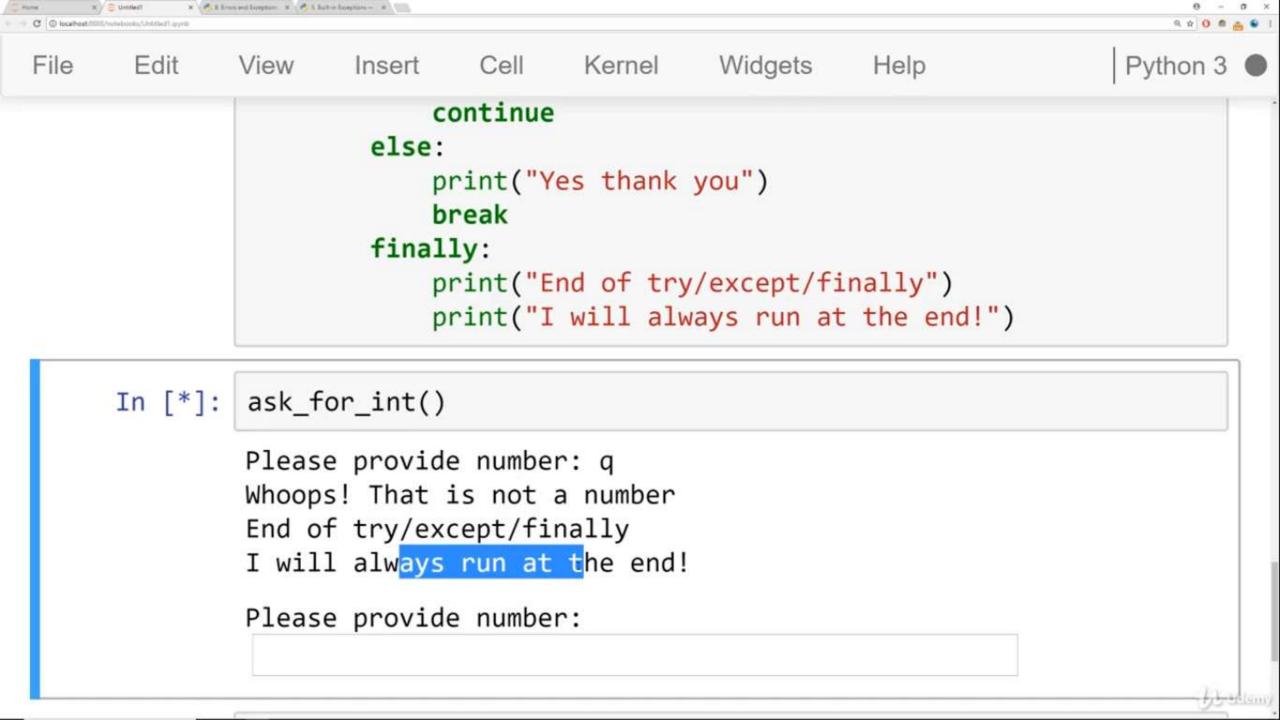
```
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   In [281]: def ask_for_int():
                  while True:
                      try:
                          result = int(input("Please provide number: "))
                      except:
                          print("Whoops! That is not a number")
                          continue
                      else:
                          print("Yes thank you")
                          break
                      finally:
                          print("End of try/except/finally")
                          print("I will always run at the end!")
```

J. Ledania









```
Widgets
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File
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                           Cell Kernel
   In [282]: def ask_for_int():
                  while True:
                      try:
                          result = int(input("Please provide number: "))
                      except:
                          print("Whoops! That is not a number")
                          continue
                      else:
                          print("Yes thank you")
                          break
                      finally:
                          print("I'm going to ask you again! \n")
   In [284]: ask_for_int()
```

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