```
1  python class 2020
2  Coder: Mohammad Foroughi(+989226219173)
```

ERRORS

SyntaxError

In [1]:
```
1  a = 1
2  if a == 1
3      print(a)
```

```
  File "<ipython-input-1-8632fadb053f>", line 2
    if a == 1
             ^
SyntaxError: invalid syntax
```

In [2]:
```
1  None = 2
```

```
  File "<ipython-input-2-6bbbad864c12>", line 1
    None = 2
         ^
SyntaxError: can't assign to keyword
```

In [3]:
```
1  def name(():
2      print("hi")
```

```
  File "<ipython-input-3-9025da94581c>", line 1
    def name(():
              ^
SyntaxError: invalid syntax
```

NameError

```
In [4]:    1  print(a)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-4-bca0e2660b9f> in <module>
----> 1 print(a)

NameError: name 'a' is not defined
```

TypeError

```
In [5]:    1  print("a" + "b") # python --> Dynamicaly Programming lang
           2  print("a" + 1) # Cause TypeError
```

```
ab
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-5-69bb3c85a1b0> in <module>
      1 print("a" + "b") # python --> Dynamicaly Programming lang
----> 2 print("a" + 1) # Cause TypeError

TypeError: can only concatenate str (not "int") to str
```

```
In [7]:    1  a = 1
           2  print(len(a))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-7-d0d6697d0892> in <module>
      1 a = 1
----> 2 print(len(a))

TypeError: object of type 'int' has no len()
```

IndexError

In [8]:
```python
1  a = [1, 2, 3]
2  print(a[2])
3  print(a[4])
```

3

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
<ipython-input-8-a3cadfe39004> in <module>
      1 a = [1, 2, 3]
      2 print(a[2])
----> 3 print(a[4])

IndexError: list index out of range
```

ValueError

In [10]:
```python
1  print(int(12.3))
2  print(int("Mammad"))
```

12

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-10-6bf7391b1d1e> in <module>
      1 print(int(12.3))
----> 2 print(int("Mammad"))

ValueError: invalid literal for int() with base 10: 'Mammad'
```

KeyError

In [11]:
```python
1  d = {"one": 1, "two": 2}
2  print(d["two"])
3  print(d["three"])
```

2

```
---------------------------------------------------------------------------
KeyError                                  Traceback (most recent call last)
<ipython-input-11-1290cb20d163> in <module>
      1 d = {"one": 1, "two": 2}
      2 print(d["two"])
----> 3 print(d["three"])

KeyError: 'three'
```

AttributeError

In [13]:
```python
1  a = "mohammad Foroughi"
2
3  print(a.split())
4
5  print(a.splits())
```

```
['mohammad', 'Foroughi']

---------------------------------------------------------------------------
AttributeError                            Traceback (most recent call last)
<ipython-input-13-6fe5b9542130> in <module>
      3 print(a.split())
      4
----> 5 print(a.splits())

AttributeError: 'str' object has no attribute 'splits'
```

Handling Errors

In [14]:
```python
1  raise ValueError("What?")
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
<ipython-input-14-166ee6127fc7> in <module>
----> 1 raise ValueError("What?")

ValueError: What?
```

try except

In [15]:
```python
1  try:
2      print(abc)
3  except NameError:
4      print("'abc' not found")
```

```
'abc' not found
```

In [ ]:
```python
1  try:
2      print(abc)
3  except NameError as err:
4      print(err)
```

In [20]:

```python
1  abc = 1
2
3  try:
4      print(abc)
5  except NameError:
6      print("not found")
7  else:
8      print("hi. how are you?")
9      f
10 finally:
11     print("It's me")
```

```
1
hi. how are you?
It's me

---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
<ipython-input-20-be35d44ee61b> in <module>
      6 else:
      7     print("hi. how are you?")
----> 8     f
      9 finally:
     10     print("It's me")

NameError: name 'f' is not defined
```

```
In [13]:    1  def py_class(firstname, lastname, id):
            2      if type(firstname) is not str:
            3          raise TypeError("what are you doing?")
            4
            5      if type(lastname) is not str:
            6          raise TypeError("SHIT, again?")
            7
            8      if type(id) is not int:
            9          raise TypeError("id must be int")
           10      print(f"{firstname} {lastname} has id: {id}")
           11
           12
           13  py_class("Mohammad", "Foroughi", 'javad')
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-13-ab5a73c576d5> in <module>
     11
     12
---> 13 py_class("Mohammad", "Foroughi", 'javad')

<ipython-input-13-ab5a73c576d5> in py_class(firstname, lastname, id)
      7
      8     if type(id) is not int:
----> 9         raise TypeError("id must be int")
     10     print(f"{firstname} {lastname} has id: {id}")
     11

TypeError: id must be int
```

```
In [ ]:    1  while True:
           2      night_secret_name = input("What is the night secret name? ")
           3      if night_secret_name == "banana":
           4          print("Ok buddy! you Entered")
           5          break
           6      else:
           7          raise NameError("It's wrong. try again")
```

```
In [ ]:    1  while True:
           2      night_secret_name = input("What is the night secret name? ")
           3      if night_secret_name == "banana":
           4          print("Ok buddy! you Entered")
           5          break
           6      else:
           7          print("It's wrong. try again")
```