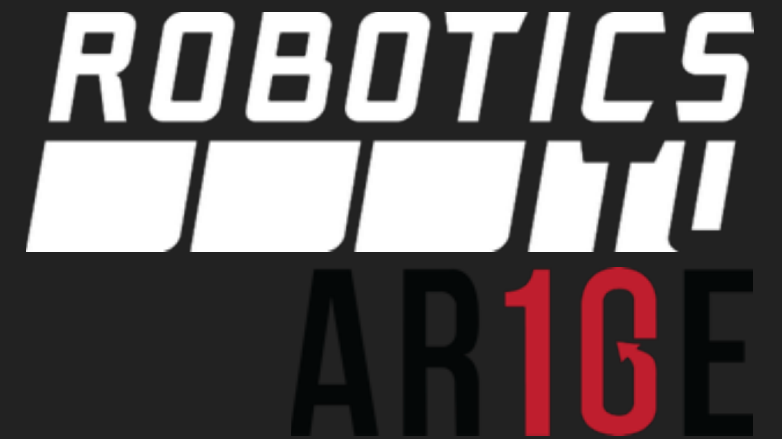


İTÜ ROBOTİK KULÜBÜ (ARIGE) EĞİTİMİ

1. HAFTA

PYTHON İLE PROGRAMLAMAYA GİRİŞ

GUIDO VAN ROSSUM (31 JANUARY 1956)

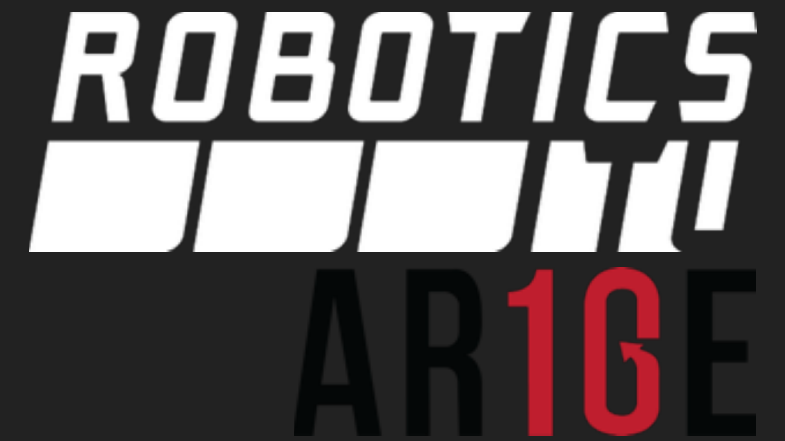


"Over six years ago, in December 1989, I was looking for a "hobby" programming project that would keep me occupied during the week around Christmas. My office ... would be closed, but I had a home computer, and not much else on my hands. I decided to write an interpreter for the new scripting language I had been thinking about lately: a descendant of ABC that would appeal to Unix/C hackers. I chose Python as a working title for the project, being in a slightly irreverent mood (and a big fan of Monty Python's Flying Circus)."



- ▶ DropBox
- ▶ import this

PYTHON NEDİR? NEDEN PYTHON?



- ▶ Python is a widely used high-level, general-purpose, interpreted, dynamic programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than possible in languages such as C++ or Java. The language provides constructs intended to enable writing clear programs on both a small and large scale.
- ▶ Yukarda geçen *High-level, General-purpose, Interpreted, Dynamic* kavramları ne demektir.
- ▶ Numpy, PyQt, Django, PyGame...

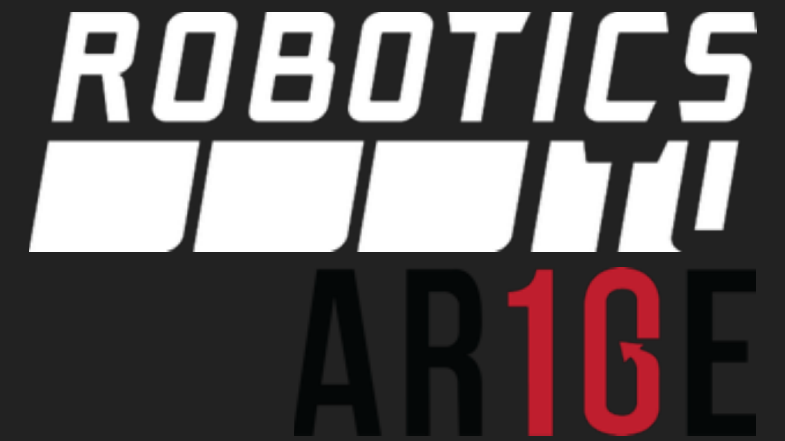
PYTHON NASIL TELAFFUZ EDİLİR?



TEMEL KAVRAMLAR

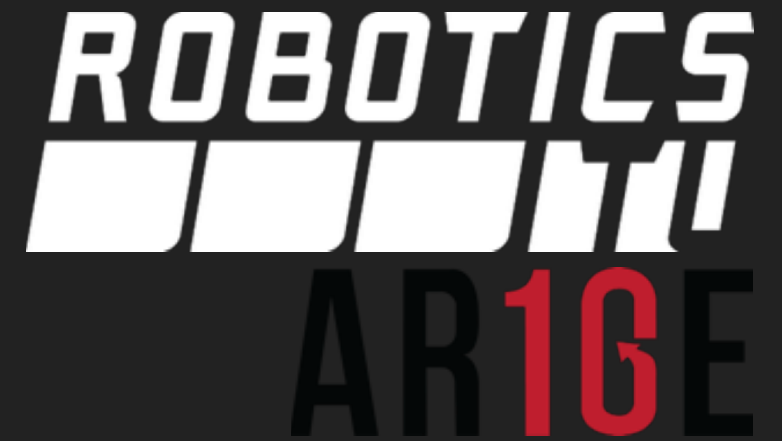
- ▶ IDE
- ▶ Editor
- ▶ Compile, Build, Run.
- ▶ stackoverflow ve google





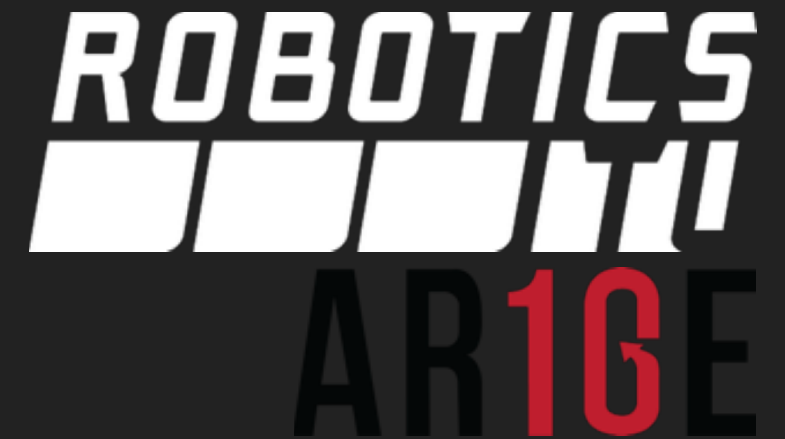
1. HAFTA - 28 EKİM

- ▶ `print("hello world")`
- ▶ Veri tipleri
 - ▶ `int`
 - ▶ `float`
 - ▶ `boolean`
 - ▶ `string`
- ▶ Hesaplamalar
 - ▶ İşlemler(toplama, çıkarma, çarpma, bölme, üs alma, modulo)
- ▶ Yorum satırları
 - ▶ `#`
 - ▶ `////` `////`



INTEGERS (INTEGERLAR)

- ▶ 1513656 sayısının 13536 sayısına bölümünden kalanı kaçtır?
- ▶ 924156, 19877354135119, 14 ve 52306 sayılarının birler basamağındaki rakamlarını bulun.
- ▶ Çevresi 57cm olan çemberin yarı çapı kaçtır?
- ▶ Bu çemberin 37.5° 'lik dilimine "S" alanına dersek, bu S alanını hesaplayın.
- ▶ Çevresi 58cm olan bir başka çemberin 37.5° 'lik diliminin alanına "A" dersek A, S'den yüzde kaç daha büyüktür.
- ▶ $f(x) = 48x^2 + 39 - 24$ denkleminin köklerini bulunuz.

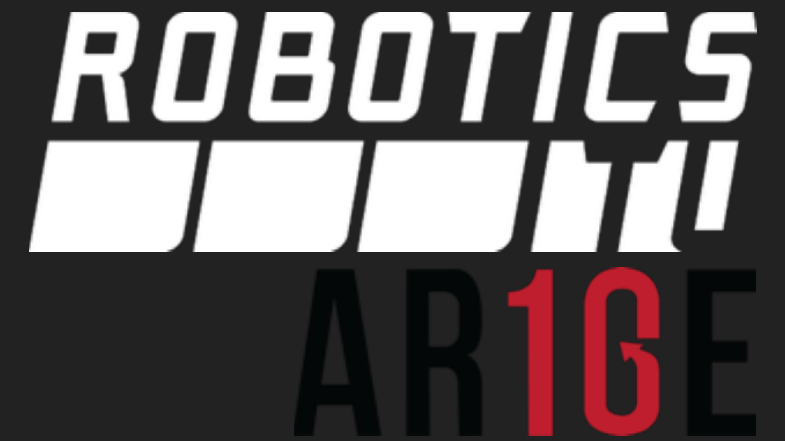


STRINGS (STRINGLER)

- ▶ `my_string = "non est ad astra mollis e terris via",`
string with "+"
- ▶ `print len(my_string)`
- ▶ `print(my_string[0], mystring[1:3])`
`my_string.count(' ')`
`my_string.index("mollis")`
`my_string.find("d")`
`my_string.split()`
- ▶ `my_string.replace("mollis", "luna")`
- ▶ `" ".join(my_string)`
- ▶ `print ("."* 10)`
- ▶ `strip()`
`lstrip()`
`rstrip()`
- ▶ `my_string.endswith('j')`
`my_string.startswith('g')`
`my_string.isalpha()`
`my_string.isdigit()`
`my_string.istitle()`
`word.isupper()`
`word.islower()`
`word.isspace()`
- ▶ `.upper()`
`.lower()`
`.capitalize()`
`.title()`
`.swapcase()`

FONKSİYONLAR

- ▶ `def fonksiyon():`
 - ▶ Bir şey yap
 - ▶ Başka bir şey yap
 - ▶ Sonuç ver
- ▶ `fonksiyon()`



ZAMAN

- ▶ `from datetime import datetime`
- ▶ `now = datetime.now()`
- ▶ `print ('%s/%s/%s %s:%s:%s' % (now.month, now.day, now.year, now.hour, now.minute, now.second))`

