

# Python Beta 107

## Lists and dictionaries



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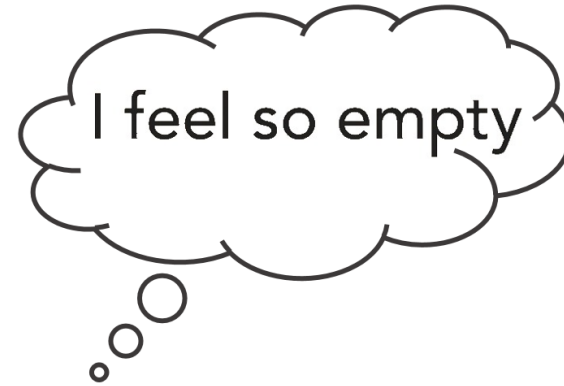
## Covenant with Allah

اللَّهُمَّ فَاطِرَ السَّمَاوَاتِ وَالْأَرْضِ، عَالِمَ الْغَيْبِ وَالشَّهَادَةِ،  
إِنِّي أَعْهَدُ إِلَيْكَ فِي هَذِهِ الْحَيَاةِ الدُّنْيَا: إِنَّكَ إِن تَكِلْنِي  
إِلَى نَفْسِي تُقَرِّبْنِي مِنَ الشَّرِّ، وَتُبَاعِدْنِي مِنَ الْخَيْرِ،  
وَإِنِّي إِن أَثِقُ إِلَّا بِرَحْمَتِكَ فَاجْعَلْهُ لِي عِنْدَكَ عَهْدًا  
تُؤَدِّهِ إِلَيَّ يَوْمَ الْقِيَامَةِ، إِنَّكَ لَا تُخْلِفُ الْمِيعَادَ

# Covenant with Allah

***O Allah, Originator of the heavens and earth, Knower of the seen and unseen, I testify in this worldly life of mine that if You leave me to myself, by that You are bringing me closer to harm and distancing me from good. I have no confidence except in Your mercy, so let that be a covenant that You deliver to me on the Day of Judgment—for You never break Your promises.***

# A light hearted List Joke



[ " ]

# Lists in Python

- In Python Lists are ordered sequences that can hold a variety of object types.
- We can use [] brackets and commas to separate objects in the list for example [1,2,3,4,5,6,7,8]
- Lists support indexing and slicing that we learned previously and also have a variety of useful methods that can be called on.
- Lists can also be nested that we covered in Python Alpha.

# How easy is python



# Dictionaries in Python

- A dictionary is a collection which is unordered, changeable and indexed. In Python dictionaries are written with curly brackets, and they have keys and values.
- Dictionaries use a key-value pairing instead  
`{'key1':'value1','key2':'value2'}`
- The key value pair allows users to grab objects without needing to know an index location

# Dictionary vs lists

- Dictionaries: Objects retrieved by key name.  
They are unordered and cannot be sorted.
- Lists: objects retrieved by location.  
Ordered sequence can be indexed or sliced.



# جزاك الله

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