

Data types	
name	value
string	"anything1234!@£\$%"
integer	1234
float	1.2345
bool	True/False

Variable naming rules
1. Easy to remember
2. Short
3. No spaces
4. Cannot start with a number
5. Can only contain letters, numbers and underscores

Collections and generics		
Name	Usage	Code
List	Multiple items in one variable	["apple", "banana", "strawberry"]
Dictionary	Multiple key-value pairs in one variable	{"hello": "world"}

Casting	
cast	what it does
str()	converts to a string
int()	converts to an integer
float()	converts to a float

Casting is used to convert between values. It needs to occur before doing any mathematical calculations with an input() from a user because user input is always strings.

Variable assignment
name = "abcdef123"
age = 18
height = 3.14

Useful python functions	
print("t ext")	outputs text to screen
input("t ext")	prints text and allows input from a user
round(3.14)	rounds a float down to an integer

Comparators	
symbol	meaning
==	equal to
>	larger than
<	less than
>=	larger than or equal
<=	less than or equal
!=	not equal

Boolean operators	
and	both values must be true
or	either value may be true
xor	either value may be true, but not both

Arithmetic operators	
+	add
-	subtract
*	multiply
/	divide
**	power
%	modulus

Conditionals
value = 3
if value < 4:
print("less than 4")
elif value > 2:
print("larger than 2")
else:
print("some other value")

else and elif must follow an if. Else cannot come before elif. Whitespace before the print statements indicates they are only to print if the condition is met

Loops
infinite loop
while True:
print("cheese!")
counter loop - 0-9
for i in range(10):
print(i)
iterating a list
collection = ['apple', 'orange', 'banana']
for value in collection:
print(value)



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