Cheatography

Commands Cheat Sheet

by chatchana12 via cheatography.com/26058/cs/7161/

Commands

print()	A command used to print something
int()	A command used to convert any kinds of number into integer
float()	A command used to convert any kinds of number into decimal numbers
input()	A command used to obtain information from the user
str()	A command used to convert letters or numbers into a string
len()	A command used to determine the length of a string
#	A command used to make statements a comment that does not have any effect on the coding

Mathematical operators

==	equal to
!=	not equal to
<	less than
>	more than
<=	less than or equal to
>=	more than or equal to
%	Modulo, used to find a remainder

Variable names condition

Following conditions must me followed:
-letters
-numbers
-underscore
Valid name
- _myStr
- my3
- Hello_there
Invalid name
- 3my=”hi” -- cannot start with number
- first name=”hi”
- first-name
- first+name

Guess a word game

```
import random
Chances=5
Score=0
while Chances>0:
mylist=
['Moscow','Berlin','Vancouver','SaintPetersburg','
Chicago']
random_item=random.choice(mylist)
print(mylist)
print (random_item)
user_guess=input("guess a word:")
if user_guess==random_item:
print("Chances remaining:",Chances)
print("Correct guess")
Score=Score+100
else:
Chances=Chances-1
print("Sorry, wrong choice")
print("Chances remaining:",Chances)
print("The correct answer was:",random_item)
print("Your score now is:",Score)
```

Vocabulary

Variable	Hold a value and can be changed. It can also be set to a string of words
String	A list of character such as number,letter and symbols
Integer number	Whole number/counting number
Floating point	Numerical values in decimal
Syntax	Grammar/Structure of language
Modulo	Used to find a remainder
Boolean	True or False

Example

Print (2) – integer
Print (2.5) – floating point
Print (“Hello”) – string
Print (mystr) – variable
Print (mystr,”Hi”,2,1.0) -- commas
mystr = “Hi”
mystr ← Variable
“Hi” ← value can be changed
print (int(1.5)) → 1
print (int(“2”)) → 2
print (float(1)) → 1.0
Modulo/Remainder %
print (4%2) → 0
print (30%7) → 2

Binary number conversion

```
user_number = ' '
while user_number != ' 0 ' :
user_number = input ("Enter a number to
convert to binary")
number = int(user_number)
binary_string = ' '
while (number > 0):
remainder = number%2
binary_string = str(remainder)+ binary_string
number = number//2
print ("Binary string is", binary_string)
```

Addition

string+string	Combine the two strings together
string+number	CRASH!
number+number	Add numbers together

By **chatchana12**
cheatography.com/chatchana12/

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Multiplication and exponents

string*number	Duplicate the strings x time = numerical r values
string*string	CRASH!
number*number	multiply numbers together
string**string	CRASH!
number**number	Exponent(math)
string**number	CRASH!

Reverse Word

```
while True:
word = input("Please enter a word")
index = 0
reverse = ' '
while int(index) < len(word):
reverse = word[index] + (reverse)
index = int(index) + 1
print ("Reverse: ", reverse)
```

Hexadecimal conversion

```
#write a program that converts a number to hexadecimal
while True:
#get a number from the user
user_number= input("Choose your number: ")
#convert to integer
number=int(user_number)
hex_string=''
while(number>0):#the number is greater than 0
remainder= number%16#use modulo %
number= number//16#must use//when you divide
if remainder ==10:
remainder='A'
elif remainder==11:
remainder='B'
elif remainder==12:
remainder='C'
```

Hexadecimal conversion (cont)

```
elif remainder==13:
remainder='D'
elif remainder==14:
remainder='E'
elif remainder==15:
remainder='F'
hex_string= str(remainder)+ hex_string
#after the loop print the hex string
print('hexadecimal string is 0x'+hex_string)
#expected output-5=101
#expected output-3=11
#expected output-2=1
```